

SCHEPERS



Concrete Construction

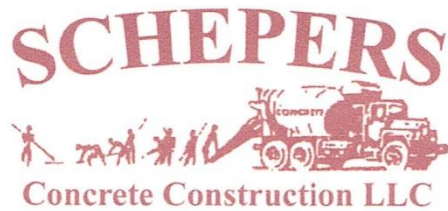
SAFETY DATA SHEETS

CONTACTS

FIRE & EMERGENCY - #911

CHEMTREC - #800-424-9300

POISON CONTROL - #800-222-1222



Schepers Concrete Construction, LLC has safety as its top priority and we want ALL of our employees to consider safety as their top priority as well, not only for themselves but for fellow employees as well.

Each employee is responsible for safety. Most construction injuries are preventable. You do not need to suffer an injury in an attempt to get a job done quickly. When you notice an unsafe act or condition, correct it yourself at once or ask your supervisor to get it corrected. If you have any symptoms such as back pain, trouble breathing, dizziness or sharp pains, etc. please inform your foreman your foreman at once as these problems may affect your ability to do your task safely.

We must always keep channels of communication open in order to accomplish true safety. This mean we must cooperate with a sincere desire, common sense and over all support of everyone on our crews. Talk is cheap, take action and follow through is an effective way to prevent accidents.

Schepers Concrete holds periodic safety meetings for all employees. It is mandatory that all are in attendance. Participate and don't just show up. Contribute, and be a good example for the new employees who do not yet have the necessary experience for safety awareness. Please ask questions if you do not understand something.

Read all safety material given to you and be sure to read safety material provided by our suppliers regarding their materials.



General Safety Rules

All company safety rules must be obeyed. If you fail to do so, strict disciplinary action will be taken. If you disregard our safety rules, it will ultimately result in termination of your employment.

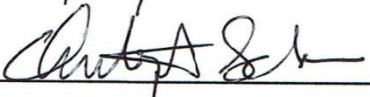
1. Keep your mind on work task at all times. No horseplay on the job at any time will be tolerated. Injury or termination of may be a result.
2. Wear personal protective equipment at all times. This includes but is not limited to safety glasses, hard hats, high visibility, gloves and protective footwear.
3. Wear long pants and keep shirt on at all times to prevent sunburn, protect against acid burns, cuts, etc.
4. If you should come in contact with an acid or caustic substance, flush with water at the nearest available source immediately, seek medical aid at once.
5. Do not run, watch where you put your feet when walking.
6. Violation of our drug and alcohol abuse policy will not be tolerated. If your doctor prescribes drugs which warn against driving or using machinery, let your foreman know.
7. Do not distract fellow workers from doing their work.
8. We will provide sanitation facilities for your use. Do not damage or deface them.
9. Keep your working area clean and free from rubbish and debris.
10. Never use a compressor to remove dust or debris from your body.
11. If you have a fear of heights or are subject to dizziness, no not work from an elevated location and inform your supervisor.
12. Know where firefighting equipment is located and learn how to use it.
13. If someone gets injured, do not attempt to move them unless it is absolutely necessary. Keep the injured person comfortable and use job site first aid until a medical professional arrives.
14. Use proper lifting techniques. Use your legs, not your back. If the load is too heavy get help from another worker.
15. Do not use the power tools until you have been properly instructed in safe work methods and you are authorized to use them. Keep the guards in place and do not remove any safety device.
16. Do not ride on loads, fenders, running boards or in bed of trucks.
17. Do not enter areas which have been roped off or barricaded.
18. Make sure operators can always see you when operating equipment.
19. Turn equipment off before doing any maintenance.
20. Rope off danger areas to keep other trades from entering.
21. Keep away from the edge of pits, trenches, holes, etc.
22. Keep out of trenches that have not been properly sloped or benched. Store excavated materials away from edge of any excavation.
23. Make sure ladder is properly sloped and extend 3' above landing ensuing that the top is tied off.



24. Tag and remove any defective ladders
25. Keep base of ladder free of rubbish and debris.
26. Scaffold planks must be cleated or secured to prevent them from sliding and must be two planks wide. Always build scaffolds according to manufactures recommendations.
27. Only use extension cords with three prongs check electrical ground system and cords daily. Remove from service if any nicks or cuts are found.
28. Ground fault interrupters are to be used at all electrical outlets where ground fault interrupters do not exist.
29. Always use safety belts with safety lines when working from unprotected places. Use shortest line possible.
30. You must wear safety belts while operating, driving or riding in any company vehicles or equipment.
31. Never throw things over the edge of building. Someone may be passing below and could be seriously injured.
32. No open fires are allowed at any time.
33. Safety goggles and ear protection are mandatory when cutting and chipping concrete.
34. Michigan occupational health standards require that certain specific precautions be employed before and during entry of a confined or enclosed space. Therefore, before entry of a confined space such as silo, sewer, tank or pit, contact the safety officer.
35. Know what the emergency procedures are for your job site.

Compliance with the safety rules and regulations under MIOSHA is mandatory!

Date: 9/4/14

Signature: 

Title: President

The primary responsibility of the employees of Schepers Concrete is to perform his or her duties in a safe manner in order to prevent injury to themselves and others.

As a condition of employment, employees MUST become familiar with, observe, and obey rules and established policies for health, safety, and preventing injuries while at work. Additionally, employees MUST learn the approved safe practices and procedures that apply to their work.

Before beginning special work or new assignments, an employee should review applicable and appropriate safety rules.

If an employee has any questions about how a task should be done safely, he or she is under instruction NOT to begin the task until he or she discusses the situation with his or her supervisor. Together, they will determine the safe way to do the job.

If, after discussing a safety situation with his or her supervisor, an employee still has questions or concerns, he or she is required to contact the Safety Coordinator.

NO EMPLOYEE IS EVER REQUIRED to perform work that he or she believes is unsafe, or that he or she think is likely to cause injury or a health risk to themselves or others.

1. **Conduct:** Horseplay, 'practical jokes,' etc., are forbidden. Employees are required to work in an injury-free manner displaying accepted levels of behavior. Conduct that places the employee or others at risk, or which threatens or intimidates others, is forbidden.
2. **Drugs and Alcohol:** Use and/or possession of illegal drugs or alcohol on company property or on company time are forbidden. Reporting for work while under the influence of illegal drugs or alcohol is forbidden.
3. **Housekeeping:** The following areas must remain clear of obstructions:
 - Aisles/exits
 - Fire extinguishers and emergency equipment
 - All electrical breakers, controls, and switches
 - Eye wash/safety showers

You are responsible to keep your work area clean and safe. Clean-up several times throughout the day, disposing of trash and waste in approved containers, wiping up any drips/spills immediately, and putting equipment and tools away as you are finished with them.

4. **Injury Reporting:** All work-related injuries must be reported to your supervisor immediately. Failure to immediately report injuries can result in loss of Workers' Compensation benefits. After each medical appointment resulting from a work-related injury, you must contact your supervisor to discuss your progress. You must also give your supervisor any paperwork that you received at the appointment.

Schepers Concrete provides Transitional Return to Work (light duty) jobs for persons injured at work. Transitional work is meant to allow the injured employee to heal under a doctor's care while she/he remains productive. Employees are required to return to work immediately upon release.

5. **Personal Protective Equipment (PPE):** Inspect PPE prior to each use. Do not use damaged PPE. You are required to maintain and keep PPE clean.
 - a) Safety Glasses – must be worn at all times in designated areas in this facility.
 - b) Hard Hats – must be worn at all times in designated areas.
 - c) Gloves – work gloves must be worn at all times when handling sharp or rough stock, welding, or performing other jobs, which could cause hand injuries. Synthetic gloves must be worn when handling chemicals.
 - d) Welding – appropriate filter lens, welding helmet, gloves, and sleeves are required for welders at all times.
 - e) Respirators – only employees trained and authorized to use respirators are allowed to do so.
 - f) Hearing Protection – is required in areas where noise exposure is more than 90dBA (85dBA if you already have experienced a hearing loss).

6. **Equipment Operation:** You must specifically be trained and authorized by your supervisor to operate the following:

- Company vehicles,
- Forklifts,
- Machine and power tools,
- Paint sprayers,
- Welders, and
- Cranes/hoists

When operating machines: do not wear loose clothing, long hair should be tied up and back, remove jewelry, and sleeves should either be rolled all the way up, or all the way down.

Never operate damaged or defective equipment. Turn the machine off and report it to your supervisor immediately.

Never tamper with, remove, or deactivate machine guards or controls designed to ensure safe operations. Never reach into an operating machine or moving machine part.

7. Ladders:

- Inspect all ladders prior to each use;
- Ladders must be placed on secure footing;
- Only one person is allowed on a ladder at a time;
- Never stand on the top two steps of a stepladder;
- Always maintain 3-point contact when working on ladders;
- Never reach beyond arm length when working on a ladder; and
- Never use metal ladders when working on or around electrical equipment.

8. Cranes/Hoists/Lifting Devices:

- a) Inspect all cranes, hoists and lifting devices (slings, hooks, etc.) prior to each use. Never use damaged equipment.
- b) Never walk under a load suspended from a hoist or crane.
- c) Keep all personnel clear of the 'fall zone' of the crane/hoist.
- d) Know the weight of material being lifted. Never overload a crane/hoist.

9. Lockout/Tagout – prior to working on any machinery when guards are removed, every energy source (electrical, hydraulic, chemical, mechanical, etc.) must be deactivated, stored energy dissipated, and the control locked in the off (safe) position.

Never remove or tamper with a lockout performed by another employee or contractor. A lockout could consist of a lock applied to a control such as a switch, breaker, or valve. A tag containing words such as "DANGER - DO NOT OPERATE" may also be used for lockout. If you see the lock, the tag, or both applied to an energy control device it means, "Keep your hands off."

10. Hazard Communication:

- a) All chemical containers must be labeled to identify contents and hazards. Most labels use numbers to rank the hazard level in three important areas:
 - FIRE (red background color) - will the material burn?
 - HEALTH (blue background) - is the material dangerous to my body?
 - REACTIVITY (yellow background) - is the material dangerously unstable?

After each hazard (Fire, Health, Reactivity), a number from 1-4 will be assigned. The number reflects the degree (or amount) of hazard:

- 0 Minimal -1 Slight
- 2 Moderate -3 Serious
- 4 Severe

- b) A Material Safety Data Sheet (MSDS) must be secured for all chemicals purchased or brought on site. You have a right to access MSDSs – ask your supervisor.
 - c) Follow all label and MSDS instructions – including amount instructions
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- d) Do not mix chemicals unless authorized to do so.
 - e) Keep all chemicals in closed containers.
 - f) Store all flammable liquids in safety cabinets or safety cans. Never use flammable chemicals around ignition sources such as smokers, pilot lights, or arcing/sparking electrical equipment.
 - g) Wear required Personal Protective Equipment and minimize contact with the chemical.
 - h) Do not eat, drink, or smoke while using chemicals. And always wash your hands after handling chemicals.
11. Confined Space Entry – Only trained and authorized employees are permitted to enter confined spaces. If you believe that your job requires confined space entry, contact your supervisor prior to undertaking the work. (Confined spaces are areas not meant for human occupancy, have limited means of entry/exit, and have electrical, chemical, thermal, atmosphere, or entrapment hazards).
12. Emergencies:
- a) In the event of any serious injury or fire, call 911. Send someone to the facility entrance to meet the Fire Department. If in doubt, call 911.
 - b) Upon discovering a fire, alert others in immediate danger and initiate facility-wide fire alarm.
 - c) When the evacuation signal is given, all employees should immediately turn off equipment, close doors, and evacuate to their designated evacuation areas. Attendance will be taken to account for all personnel. Stay together in the group until further instructions are received.
 - d) Do not attempt to fight any fire which is uncontained, too hot, too smoky, or if you are too frightened.
 - e) To use a fire extinguisher, remember PASS:
 - P = Pull (the safety pin)
 - A = Aim (at the base of the fire)
 - S = Squeeze (the lever)
 - S = Sweep (side to side)
- If you use a fire extinguisher, remember:
Stay low,
Keep yourself between the fire and an exit,
Do not turn your back on a fire, and
Immediately report the use to your supervisor.
- d) Do not touch blood or any other bodily fluid during or following an incident. If you are trained to administer first aid, gloves and other barriers are located with the first aid equipment. If you think that you have been exposed to bodily fluid, notify your supervisor immediately.
13. Company Vehicles and Driver Safety:
- a) Only employees authorized by Schepers Concrete are permitted to operate Schepers Concrete vehicles.
 - b) No 'side trips' or personal use of company vehicles are permitted.
 - c) Seat belts/shoulder harnesses must be worn whenever the vehicle is in motion.
 - d) All local and state traffic regulations and signs must be followed.
 - e) No unauthorized riders, hitchhikers, etc., are allowed.
 - f) All moving violations resulting in points being assigned to your license must be reported to your supervisor.
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g) Driving while under the influence of alcohol or other drugs is forbidden.

- Employees driving their personal vehicles on company business must follow steps 'c – g,' shown above.

14. Electrical Safety:

- a) Never operate or tamper with the electrical main switch or breakers. You are authorized only to operate switches/disconnects on/for individual machines.
- b) Report all electrical problems and suspected problems to your supervisor.
- c) All junction boxes, control boxes, connections, and other wiring must have covers securely installed to prevent accidental contact.
- d) Inspect all plugs, cords, and portable equipment prior to use.
- e) Report any damaged electrical equipment to your supervisor. Only authorized personnel are permitted to make repairs.
- f) Extension cords are to be used only for temporary applications. Never stretch cords across aisles or areas where others may trip over them. Do not attach extension cords to the building or run them under rugs/mats or through walls.
- g) Any personal electrical devices must be approved by Schepers prior to use.

15. Lifting:

- a) If you need help moving material, request assistance.
- b) When you lift, use your leg muscles by squatting close to the load, preserving the curve in your back, spreading your feet, and lifting with your legs, keeping the load close to your body.
- c) When you turn holding an object, move your feet, and do not twist.

16. Staying Safe - Report any unsafe conditions or situations to your supervisor. If you have suggestions on improving any aspect of safety in the facility, discuss it. If you are unsure of how to operate a piece of equipment or complete an assignment, ask for help. Asking for help when you are unsure reduces the chance of injury.

These rules are established to help you stay safe and injury free. Violation of the above rules, or conduct that does not meet minimum accepted work standards, will result in discipline, up to and including discharge.

When working at a customer location, employees are required to follow the above rules, as well as all customer rules and procedures, and work in a manner that reflects positively on the company. Before operating any equipment at a customer location, permission must first be secured from the customer contact.

Introduction

The term "concrete construction" includes a wide range of activities and structures from a back yard patio to a super highway, from a house basement to a 100-story building, from a golf course decorative bridge to a 1,600-foot cable-stayed segmental concrete bridge, from a lily pond to a double curved arch dam, from a paved ditch to a river levee, and the list could go on and on. No attempt is made to cover all the safety problems to be solved for every conceivable type and size of concrete project. Instead, this is intended only to make workers aware of the general safety requirements for concrete construction.

Precautions when handling cement and concrete

Wear long trousers and long sleeved shirts when handling Portland cement, masonry cement, or fresh concrete.

Use rubber gloves or protective cream to protect exposed skin surfaces.

Wear proper eye and face protection and respirators when handling bulk cement.

Wear rubber boots when working in wet concrete. Do not allow concrete inside the boots.

Keep an adequate supply of clean, drinkable water (potable water) at locations where employees will be exposed to cement, fresh concrete, or cement dust.

When fresh concrete comes in contact with skin, wash it off immediately with clean potable water. Employees should wash frequently with clean water to prevent skin irritation from exposure to concrete dust or cement.

Do not use tool wash water as it may contain concrete contaminant.

When dust or fresh concrete gets into someone's eye(s), flush the eye(s) with clean, potable water thoroughly for at least 15 minutes. If irritation persists or damage exists, seek medical help immediately. Do not use tool wash water as it may contain concrete contaminant.

Formwork

Proper form lumber and supports should be selected. Formwork will be designed; (preferably by a professional engineer), fabricated, erected, supported, braced and maintained so that it will be capable of supporting without failure all vertical and lateral loads that may reasonably be anticipated to be applied to the formwork. Factors that need to be considered are: full consideration of load factors, spans between supports, support, setting temperature, rate of pour, rate of strength gain, all temporary loads to be supported during placing, compacting, finishing, curing, and any other construction loads to be supported before, during, and after the forms are stripped.

Ramps: Forms for ramps and other sloping elements exert both lateral and vertical loads on formwork which must be taken into account in formwork design.

Housekeeping: Keep all areas on and around forms free of debris and construction materials at all times. Strip forms methodically and thoroughly. Remove all hardware, nails, screws, etc., and discard properly. Remove dismantled form members from the work area as soon as possible.

Fall Protection: All employees working at heights greater than six (6) ft. must be protected by guardrail, safety net, personal fall arrest system or safety monitoring system plan. There are exceptions or specific work categories. Full body harness, with lanyard, or lifeline, certified by ANSI, is the only acceptable personal fall arrest system. Body and safety belts should only be used as positioning devices.

Form Shoring Preparation: Inspect shoring equipment prior to, during, and after concrete placement. When installing shoring on surfaces other than concrete, mudsills, or pads will be used as specified by the formwork designer, to distribute the loads properly. Materials and equipment must meet the requirements in the specifications and on the formwork drawings. Damaged shoring should be repaired or removed from service immediately.

On Site Inspection: Erected shoring equipment should be inspected prior to, during, and immediately following the placing of the concrete. Shoring equipment found to be damaged or weakened after use should be properly repaired or replaced.

Form Stripping & Shoring Removal: Barricade tape or signs should be utilized to prevent unauthorized personnel from entering formwork stripping areas. Only workers actually engaged in form stripping should be allowed in the area during form removal.

Any work-related accident resulting in serious injury or the death of an employee presents significant emotional challenges for management. Following are some guidelines, which may reduce the effects on fellow employees and minimize the impact from regulators, such as OSHA.

1. Be prepared to talk to local police officials, district attorney investigators, coroners, and OSHA compliance officers. Be aware that police and district attorneys can conduct criminal investigations. Be truthful but do not speculate or offer unsolicited opinions, information, or theories. Also be prepared for contacts from local news media. Consult with legal advisors if in doubt. (Operate under the assumption that OSHA will investigate. Take steps to be sure that your entire facility is as prepared as possible).
 2. Fatalities and incidents resulting in three or more employees receiving inpatient hospitalization must be reported within 8 hours to the closest OSHA area office. If after hours, the incident can be reported to OSHA at: 1-800-321-6742.
 3. Have a representative of your company contact the employee's next of kin to inform her/him of the circumstances. If possible, this contact should be made in person. Offer to provide transportation and/or other support.
 4. Get all witnesses names. If some witnesses are not employees, be sure to get full addresses and phone numbers.
 5. Render safe any hazards created by the accident scene. (i.e. material that may fall, leaking chemicals, etc.). Rope off or otherwise isolate the accident scene early on to prevent it from becoming a "tourist attraction."
 6. Conduct an initial investigation. If equipment and/or duties directly involved in the accident are duplicated elsewhere in the company, take immediate steps to assure that there will be no re-occurrence of the accident.
 7. Take pictures to document the scene. Note anything that may help you identify specific equipment involved such as serial numbers, license plate numbers, etc.
 8. Follow procedure for bloodborne pathogens in cleaning any bodily fluid spills.
 9. Consider meeting with employees in small groups to discuss, in general terms:
 - a) The serious accident that occurred.
 - b) That all the necessary steps were taken to care for the person involved.
 - c) That an accident investigation is being performed.
 - d) That all employees will be kept informed.
 - e) The availability of the Employee Assistance Program (EAP) (if applicable).
 - f) Provide encouragement and request that employees work safely.
 10. Request your supervisors be alert for employees who may not be paying full attention to their jobs and thereby jeopardizing their own safety. During these discussions, do not discuss fault, discipline, opinions, etc.
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Schepers is firmly committed to your safety. We will do everything possible to prevent workplace accidents and are committed to providing a safe working environment for you and all employees.

We value you not only as an employee but also as a human being critical to the success of your family, the local community.

You are encouraged to report any unsafe work practices or safety hazards encountered on the job. All accidents/incidents (no matter how slight) are to be immediately reported to the supervisor on duty.

A key factor in implementing this policy will be the strict compliance to all applicable federal, state, local, and Schepers Concrete policies and procedures. Failure to comply with these policies may result in disciplinary actions.

Respecting this, Schepers Concrete will make every reasonable effort to provide a safe and healthful workplace that is free from any recognized or known potential hazards. Additionally, Schepers Concrete subscribes to these principles:

1. All accidents are preventable through implementation of effective Safety and Health Control policies and programs.
 2. Safety and Health controls are a major part of our work every day.
 3. Accident prevention is good business. It minimizes human suffering, promotes better working conditions for everyone, holds Schepers Concrete in higher regard with customers, and increases productivity. This is why Schepers will comply with all safety and health regulations which apply to the course and scope of operations.
 4. Management is responsible for providing the safest possible workplace for Employees. Consequently, management of Schepers Concrete is committed to allocating and providing all of the resources needed to promote and effectively implement this safety policy.
 5. Employees are responsible for following safe work practices, company rules, and for preventing accidents and injuries. Management will establish lines of communication to solicit and receive comments, information, suggestions, and assistance from employees where safety and health are concerned.
 6. Management and supervisors of Schepers will set an exemplary example with good attitudes and strong commitment to safety and health in the workplace. Toward this end, management must monitor the company's safety and health performance, working environment, and conditions to ensure that program objectives are achieved.
 7. Our safety program applies to all employees and persons affected or associated in any way by the scope of this business. Everyone's goal must be to constantly improve safety awareness and to prevent accidents and injuries.
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- Ardex CD
- BASF Kure N Seal
- Cetco Waterstop-RX
- Chem Masters Release
- CTS Rapid Set Acrylic Primer
- CTS Rapid Set TRU PC Polished Concrete
- Dayton Superior 1107 Advantage Grout
- Dayton Superior Cure & Seal 25% J22UV
- Dayton Superior Magic Kote
- Dayton Superior Sure Hard Densifier
- Dayton Superior Ultra Seal EF
- Euclid Chemical Akkro-7T
- Euclid Chemical Diamond Clear
- Euclid Chemical Everclear
- ExxonMobil Unleaded Gasoline
- Georgia-Pacific Wood Products
- Hilti HIT-RE 500 V3
- Kingspan GreenGuard Insulation Board
- Laticrete L&M Cure
- Laticrete L&M Seal Hard
- Marathon Petroleum No. 2 Diesel
- Owens Corning Foamular
- Poly America Husky Yellow Guard
- Prosoco Consolideck LS
- Sika Scofield Cureseal
- Sika Scofield Integral Color
- Sika Lithotex Liquid Release
- Simpson Strong-Tie AT-XP
- Spec Chem Multipurpose Grout
- Valvoline Hydraulic Oil
- Valvoline Multipurpose Grease
- Valvoline Synthetic Motor Oil
- W.R. Meadows Clear 1100
- W.R. Meadows Deck-O-Foam
- W.R. Meadows Fibre Expansion Joint
- W.R. Meadows Waterstop EC
- Xypex Cementitious Products

SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Manufacturer's name and address:



ARDEX Engineered Cements
400 Ardex Park Dr.
Aliquippa, PA 15001 USA

Supplier's name and address:

Refer to Manufacturer

Information Telephone No. : (888) 512-7339 or (724) 203-5000
Website Address : <http://www.ardexamericas.com>
24 Hr Emergency Telephone # : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)
Product Identifier : ARDEX CD™
Product ID No. : 70011231
Trade Name/Synonyms : CD
Material Use : Concrete Dressing
Uses Advised Against : No information available

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification per 29 CFR 1910.1200 (OSHA HCS 2012) and HPR (WHMIS 2015)

Skin corrosion/irritation, Category 1A
Serious eye damage/eye irritation, Category 1
Carcinogenicity, Category 1A
Specific target organ toxicity, single exposure; Respiratory tract irritation, Category 3
Specific target organ toxicity, repeated exposure, Category 1.

GHS Pictograms



Signal Word

Danger

Hazard Statements

Causes severe skin burns and eye damage.
May cause cancer by inhalation.
May cause respiratory irritation.
Causes damage to lungs through prolonged or repeated inhalation.

Precautionary Statements

Obtain special instructions before use. (See Section 7.) Do not handle until all safety precautions have been read and understood. Do not breathe dust. Use only outdoors or in a well-ventilated area. Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store locked up. Dispose of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

Hazards Not Otherwise Classified

None

% With Unknown Acute Toxicity : Up to 89% by weight of this product consists of ingredients with unknown acute toxicity.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (by weight)
Crystalline silica, quartz	14808-60-7	30 – 60
Calcium aluminate cement	65997-16-2	30 – 60
Portland cement	65997-15-1	1 – 5
Limestone	1317-65-3	1 – 5
Vinyl acetate copolymer	24937-78-8	1 - 5
Amorphous fumed silica	69012-64-2	1 – 5

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

SECTION 4 – FIRST AID MEASURES

- General** : Call a Poison Center or doctor if you feel unwell.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: call a doctor/physician.
- Skin contact** : Remove/Take off immediately all contaminated clothing. Flush affected skin with gently flowing lukewarm water for at least 20 minutes. Seek immediate medical attention/advice.
- Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- Ingestion** : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
- Notes for Physician** : Treat symptomatically.

Signs and symptoms of short-term (acute) exposure

- Inhalation* : Symptoms may include coughing and shortness of breath.
- Skin* : Symptoms may include redness and itching. Contact with wet material, or moist areas of skin, causes skin burns. Skin thickening, cracking, or fissuring may occur.
- Eyes* : Direct contact may strongly irritate or burn the eyes. Could cause blindness.
- Ingestion* : Symptoms such as gastric pain, nausea, vomiting, and diarrhea may occur.

Effects of long-term (chronic) exposure

- : Prolonged inhalation may cause adverse lung effects with symptoms including coughing and shortness of breath. Repeated or prolonged inhalation of fine dusts may cause severe scarring of the lungs, a disease called silicosis, and alveolar proteinosis (lower lung disease).

Indication of need for immediate medical attention or special treatment

- : Difficulty breathing persists after removing the person to fresh air.
Any burn to the skin.
Any exposure to the eye which causes irritation.
Ingestion.

SECTION 5 – FIRE FIGHTING MEASURES

- Suitable extinguishing media** : Carbon dioxide, dry chemical powder, foam.
- Unsuitable extinguishing media** : Water. Contact with water may cause hydration and formation of caustic alkaline material.
- Hazardous combustion products** : Calcium oxide, calcium oxalate, vinyl acetate, acetic acid, formic acid, formaldehydes, carbon monoxide, and carbon dioxide.
- Special fire-fighting procedures/equipment**

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.

Environmental precautions : Do not allow material to enter drains or contaminate ground water system.

Fire hazards/conditions of flammability

- : Not flammable under normal conditions of use.

Flammability classification (OSHA 29 CFR 1910.1200, WHMIS 2015)

- : Not flammable

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions : Restrict access to area until completion of clean-up. All persons dealing with clean-up should wear the appropriate chemically protective equipment.

Protective equipment : Refer to Section 8 on this Safety Data Sheet, EXPOSURE CONTROLS / PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Emergency Procedures : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002). Outside of the U.S. call the emergency number listed in Section 1.

US CERCLA Reportable quantity (RQ): None reported.

Methods and materials for containment and cleaning up

- : Ventilate area of release. Eliminate all ignition sources. Stop spill or leak at source if safely possible. Contain material, preventing it from entering sewer lines or waterways. Using HEPA vacuum, or other dustless methods, gather up spilled material and place in suitable container for later disposal (see Section 13). Avoid adding water, material becomes alkaline when wet. Notify the appropriate authorities as required.

Prohibited materials : Avoid adding water, material becomes alkaline when wet.

Environmental precautions : Do not allow product to enter drains or waterways. Do not allow material to contaminate ground water system.

Reference to other sections : See Section 13 for disposal information.

SECTION 7 – HANDLING AND STORAGE

Special instructions : Mixing the product according to the directions in the Technical Data Sheet will produce airborne dusts, including crystalline silica. Wear a dust mask (N-95 or higher) while mixing. Use ventilation to control levels of dust in the work area.

Safe handling procedures : Corrosive! Wear chemically resistant protective equipment during handling. Use in a well-ventilated area. Training the workers on the potential health hazards associated with product dust is important. Secondary inhalation exposures could occur when cleaning equipment, or when removing or laundering the clothing. Do not breathe dust. Avoid contact with skin, eyes and clothing. Avoid wet or humid conditions. Keep away from acids and incompatibles. Avoid and control operations which create dust. Keep containers tightly closed when not in use. Wash thoroughly after handling.

Storage requirements : Store in a cool, dry, well-ventilated area. Store away from heat and open flame. Avoid storing in direct sunlight. Store in original container. Keep tightly closed when not in use. Do not reuse empty container without commercial cleaning or reconditioning.

Incompatible materials : See Section 10.

Special packaging materials : Always keep in containers made of the same materials as the supply container.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits : No exposure limits have been established for the product itself. Below are exposure limits for the components in the product.

Threshold Limit Values for the Ingredients	CAS #	ACGIH TLV		OSHA PEL	
		TWA	STEL	PEL	STEL
Limestone	1317-65-3	TLV Withdrawn In 2007	N/Av	15 mg/m ³ (Total dust); 5 mg/m ³ (respirable)	N/Av
Calcium aluminate cement	65997-16-2	1 mg/m ³ (as Aluminum metal and insoluble compounds)	N/Av	N/Av	N/Av
Portland cement	65997-15-1	1 mg/m ³ (respirable, no asbestos and < 1% crystalline silica)	N/Av	15 mg/m ³ (Total dust); 5 mg/m ³ (respirable)	N/Av
Vinyl acetate copolymer	24937-78-8	10 mg/m ³ (Total dust); 3 mg/m ³ (respirable)	N/Av	15 mg/m ³ (Total dust); 5 mg/m ³ (respirable)	N/Av
Crystalline silica, quartz	14808-60-7	0.025 mg/m ³ (respirable fraction)	N/Av	0.05 mg/m ³ (respirable) (final rule limit)	N/Av
Amorphous fumed silica	69012-64-2	2 mg/m ³ (respirable)	N/Av	N/Av	N/Av

Engineering Controls : Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product.

Personal Protection Equipment

Eye / face protection : Safety glasses or chemical goggles must be worn when using this product. Additionally, a face shield is recommended if splashing is possible.

Skin protection : Wear chemical resistant protective clothing and impervious gloves. Glove materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended.

Body protection : Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact.

Respiratory protection : If work process generates excessive quantities of dust, or exposures in excess of any PEL, wear an appropriate particulate respirator (dust mask). Mask should be rated at N-95 or higher.

Site safety equipment : An eyewash station and safety shower should be made available in the immediate working area.

General hygiene considerations : Avoid contact with eyes, skin and clothing. Do not breathe dust. Do not eat, drink or smoke when using this product. Clean all equipment and clothing at end of each work shift.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: solid	Appearance	: gray powder
Odor	: No odor	Odor threshold	: N/Av
pH	: 10 – 12	Specific gravity	: 2.7 – 3.1
Boiling point	: N/Av	Coefficient of water/oil distribution	: N/Av
Melting/Freezing point	: N/Av	Solubility in water	: < 55 g/L
Vapor pressure (mm Hg @ 20°C / 68°F)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Vapor density (Air = 1)	: N/Av	Volatiles (% by weight)	: N/Av
Volatile organic compounds (VOCs)	: 0 g/L		

Particle size : N/Av **Flammability classification** : Not flammable
Flash point : N/Av **Lower flammable limit (% by vol)** : Not available
Flash point method : N/Av **Upper flammable limit (% by vol)** : Not available
Auto-ignition temperature : N/Av **Decomposition temperature** : Not available
Viscosity : Not available **Oxidizing properties** : Not available

Explosion data: Sensitivity to mechanical impact / static discharge
: Not expected to be sensitive to mechanical impact or static discharge.

SECTION 10 – REACTIVITY AND STABILITY INFORMATION

Reactivity : Contact with water may cause hydration and formation of caustic calcium hydroxide.
Stability : Stable under the recommended storage and handling conditions prescribed.
Hazardous reactions : Hazardous polymerization does not occur.
Conditions to avoid : High temperatures.
Materials to avoid and incompatibility
: Oxidizing agents.
Hazardous decomposition products
: None known, refer to hazardous combustion products in Section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of exposure : *Inhalation*: YES *Skin Absorption*: NO *Skin and Eyes*: Yes *Ingestion*: YES
Symptoms of exposure : See Section 4.
Calculated Acute Toxicity Estimates for the Product
Inhalation : Not Available
Oral : Not Available
Dermal : Not Available
Toxicological data : There are insufficient data for estimating the product's acute toxicity. Several components become caustic in the presence of water, and therefore should not be inhaled, ingested, or allowed to contact skin. See below for individual ingredient acute toxicity data.

Acute Toxicity Parameters for the Ingredients	CAS #	LC50, Inhalation mg/L, Rat, 4 hr	LD50, Oral mg/kg, rat	LD50, Dermal mg/kg, rabbit
Limestone	1317-65-3	N/Av	6,450	N/Av
Calcium aluminat cement	65997-16-2	N/Av	N/Av	N/Av
Portland cement	65997-15-1	N/Av	N/Av	N/Av
Vinyl acetate copolymer	24937-78-8	N/Av	> 1,000	N/Av
Crystalline silica, quartz	14808-60-7	N/Av	N/Av	N/Av
Amorphous fumed silica	69012-64-2	N/Av	>22,500	N/Av

Skin corrosion or irritation : Causes skin corrosion when wet.
Serious eye damage / eye irritation : Causes eye burns. May cause blindness.
Respiratory or skin sensitization : Portland cement may cause an allergic skin reaction, in hypersensitive individuals possibly due to trace amounts of chromium.
Germ cell mutagenicity : None known.
Carcinogenic status : This product contains Crystalline silica. Crystalline silica (respirable size) is classified as carcinogenic by inhalation by IARC (Group 1), ACGIH (Group A2), NTP (Group 1) and OSHA (OSHA Select carcinogen). No other components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive toxicity : None known.
Specific Target Organ Toxicity, Single Exposure

: May cause respiratory irritation.

Specific Target Organ Toxicity, Repeated Exposure

: May cause lung damage upon repeated or prolonged exposure.

Aspiration hazard

: None known.

Additional information

: N/Av

SECTION 12 – ECOLOGICAL INFORMATION

Environmental effects : The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

Ecotoxicological : No data is available on the product itself.

Ecotoxicity : No data available.

Biodegradability : No data available.

Bioaccumulative potential : No data available.

Mobility in soil : No data available.

PBT and vPvB assessment : No data available.

Other adverse effects : No data available.

SECTION 13 – DISPOSAL CONSIDERATION

Handling for disposal : Handle waste according to recommendations in Section 7.

Methods of disposal : You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes. Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

Packaging : Handle contaminated packaging in the same manner as the product.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 – TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	None	This product is not regulated according to Canadian TDG regulations.	None	None	None
TDG Additional Information	None				
49 CFR/DOT	None	This product is not regulated according to US DOT regulations.	None	None	None
49 CFR/DOT Additional Information	None				

SECTION 15 – REGULATORY INFORMATION

Canadian Information:

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR). This SDS contains all of the information required by the HPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on either the Domestic Substances List (DSL) or the Non- Domestic Substances List (NDSL).

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes:
Immediate (Acute) Health Hazard
Chronic Health Hazard.

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above *de minimus* concentrations.

U.S. State Right To Know Laws

California Proposition 65: Warning! This product contains a chemical known to the State of California to cause cancer. It contains Crystalline silica, quartz.

Other State Right to Know Laws:

Ingredient on State RTK Law?	CAS #	CA	MA	MN	NJ	PA	RI
Limestone	1317-65-3	No	YES	No	YES	YES	YES
Portland cement	65997-15-1	No	YES	No	YES	YES	YES
Crystalline silica, quartz	14808-60-7	No	YES	YES	YES	YES	YES
Amorphous fumed silica	69012-64-2	No	YES	No	YES	No	No

SECTION 16 – OTHER INFORMATION

HMIS Rating : * - Chronic Hazard 0 - Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe
Health: *3 Flammability 0 Physical Hazard 1 PPE: G
Gloves, safety glasses, and dust respirator

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL: Domestic Substances List
EPA: Environmental Protection Agency
GHS: Globally Harmonized System
HPR: Hazardous Products Regulations
IARC: International Agency for Research on Cancer
Inh: Inhalation
N/Av: Not Available
N/Ap: Not Applicable
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average

WHMIS: Workplace Hazardous Materials Identification System

Disclaimer of Liability

The Information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

No warranty of any kind is given or implied. ARDEX Engineered Cements will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.

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End of Document

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1. Identification

Product identifier used on the label

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Recommended use of the chemical and restriction on use

Recommended use*: for industrial and professional users

* The "Recommended use" identified for this product is provided solely to comply with a US Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: No data available.

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Flam. Liq.	3	Flammable liquid
Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Carc.	2	Carcinogenicity
Repr.	1B (unborn child)	Reproductive toxicity
STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

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Label elements

Pictogram:



Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H360	May damage the unborn child.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P271	Use only outdoors or in a well-ventilated area.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P243	Take precautionary measures against static discharge.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/gas/mist/vapours.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P264	Wash with plenty of water and soap thoroughly after handling.
P242	Use only non-sparking tools.
P240	Ground/bond container and receiving equipment.

Precautionary Statements (Response):

P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311	IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P303 + P352	IF ON SKIN (on hair): Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.
P362	Take off contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use foam or dry powder for extinction.

Precautionary Statements (Storage):

P403 + P235	Store in a well-ventilated place. Keep cool.
P233	Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
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Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

WARNING:

COMBUSTIBLE LIQUID AND VAPOR.

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

MAY BE HARMFUL IF SWALLOWED.

REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE.

Overexposure may cause CNS depression including headache, dizziness, nausea and loss of consciousness.

Keep container tightly closed.

Avoid all sources of ignition: heat, sparks, open flame.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
64742-95-6	>= 25.0 - < 50.0 %	solvent naphtha
95-63-6	>= 25.0 - < 50.0 %	1,2,4-trimethylbenzene
108-67-8	>= 5.0 - < 7.0 %	mesitylene
98-82-8	>= 1.0 - < 3.0 %	cumene
1330-20-7	>= 1.0 - < 3.0 %	Xylene
25340-17-4	>= 1.0 - < 3.0 %	Benzene, diethyl-
71888-89-6	>= 1.0 - < 3.0 %	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich
100-41-4	>= 0.3 - < 1.0 %	ethylbenzene

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
64742-95-6	60.0 - 80.0 %	solvent naphtha
71888-89-6	1.0 - 5.0 %	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

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If on skin:

Immediately wash thoroughly with soap and water, seek medical attention.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Hazards: No applicable information available.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
dry powder, alcohol-resistant foam

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon dioxide, carbon monoxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Containers may rocket or explode in heat of fire. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Avoid prolonged inhalation. Avoid contact with the skin, eyes and clothing. Avoid all sources of ignition: heat, sparks, open flame.

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Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with inert absorbent material (e.g. sand, earth etc.). Correctly dispose of recovered product immediately.

7. Handling and Storage

Precautions for safe handling

Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking. Provide good room ventilation even at ground level (vapours are heavier than air).

Protection against fire and explosion:

Sources of ignition should be kept well clear. Take precautionary measures against static discharges. Substance/product can form explosive mixture with air. Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Suitable materials for containers: High density polyethylene (HDPE)

Further information on storage conditions: Keep container tightly closed and in a well-ventilated place. Keep away from heat. Avoid all sources of ignition: heat, sparks, open flame.

8. Exposure Controls/Personal Protection

Advice on system design:

No applicable information available.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:

Wear chemical resistant protective gloves.

Eye protection:

Safety glasses with side-shields.

Body protection:

Body protection must be chosen based on level of activity and exposure., Antistatic apron

General safety and hygiene measures:

Avoid inhalation of dusts/mists/vapours. Avoid contact with the skin, eyes and clothing. Avoid prolonged and/or repeated contact with the skin. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned

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and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

9. Physical and Chemical Properties

Form:	liquid	
Odour:	strong, solvent-like	
Odour threshold:		No applicable information available.
Colour:	clear	
pH value:		not applicable
Melting point:		No applicable information available.
Boiling point:		No applicable information available.
Sublimation point:		No applicable information available.
Flash point:	37.78 °C	
Flammability:	not determined	
Lower explosion limit:		No applicable information available.
Upper explosion limit:		No applicable information available.
Vapour pressure:		The product has not been tested.
Density:	0.91 g/cm ³	(20 °C)
Relative density:	0.91	
Bulk density:		not applicable
Vapour density:		Heavier than air.
Partitioning coefficient n-octanol/water (log Pow):		No data available.
Thermal decomposition:	Vapours may form explosive mixture with air. No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:		No data available.
Viscosity, kinematic:	71 mm ² /s	(40 °C)
Solubility in water:		slightly soluble
Solubility (quantitative):		No applicable information available.
Solubility (qualitative):	No applicable information available.	
Evaporation rate:		No applicable information available.
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame.

Incompatible materials

strong oxidizing agents

Hazardous decomposition products

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Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Vapours may form explosive mixture with air. No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Oral

No applicable information available.

Inhalation

No applicable information available.

Dermal

No applicable information available.

Assessment other acute effects

Assessment of STOT single:
Causes temporary irritation of the respiratory tract.

Irritation / corrosion

Assessment of irritating effects: Eye contact causes irritation. Skin contact causes irritation.

Sensitization

Assessment of sensitization: The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated inhalation exposure may affect certain organs.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity: Contains a compound classified as IARC Group 2B (possibly carcinogenic to humans).

Information on: cumene

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Assessment of carcinogenicity: In long-term animal studies in which the substance was given by inhalation in high doses, a carcinogenic effect was observed. IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Teratogenicity

Information on: solvent naphtha

Assessment of teratogenicity: The potential to cause toxicity to development cannot be excluded at maternally toxic doses.

Other Information

The product has not been tested. The statement has been derived from the properties of the individual components.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

The product has not been tested.

Additional information

Other ecotoxicological advice:

Ecological data are not available.

13. Disposal considerations

Waste disposal of substance:

Observe national and local legal requirements. Residues should be disposed of in the same manner as the substance/product.

Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport

USDOT

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Hazard class: C
Packing group: III
ID number: UN 1263
Hazard label: CBL
Proper shipping name: PAINT, COMBUSTIBLE LIQUID
Classified as combustible liquid in containers greater than 119 gallons.

Sea transport

IMDG

Hazard class: 3
Packing group: III
ID number: UN 1263
Hazard label: 3
Marine pollutant: NO
Proper shipping name: PAINT

Air transport

IATA/ICAO

Hazard class: 3
Packing group: III
ID number: UN 1263
Hazard label: 3
Proper shipping name: PAINT

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Acute; Chronic; Fire; Sudden release of pressure

EPCRA 313:

<u>CAS Number</u>	<u>Chemical name</u>
95-63-6	1,2,4-trimethylbenzene
98-82-8	cumene
1330-20-7	Xylene
100-41-4	ethylbenzene

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
5000 LBS	98-82-8	cumene
1000 LBS	100-41-4	ethylbenzene
100 LBS	1330-20-7	Xylene
10 LBS	71-43-2	Benzene

State regulations

State RTK

PA

CAS Number

71888-89-6

Chemical name

1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich

Safety Data Sheet

MasterKure CC 300SB also KURE N SEAL 30

Revision date : 2014/05/19

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Version: 1.0

(30605845/SDS_GEN_US/EN)

CA Prop. 65:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

NFPA Hazard codes:

Health : 2 Fire: 3 Reactivity: 0 Special:

HMIS III rating

Health: 2^{sq} Flammability: 3 Physical hazard:0

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2014/05/19

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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SAFETY DATA SHEET

1. Identification

Product identifier WATERSTOP-RX® 102
Other means of identification Not available.
Recommended use Not available.
Recommended restrictions Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name CETCO, an MTI Company
Address 2870 Forbs Avenue
Hoffman Estates, IL 60192
United States
Telephone General Information 800 527-9948
Website <http://www.cetco.com/>
E-mail safety.data@amcol.com
Emergency phone number .
Americas 1.866.519.4752 (US, Canada, Mexico) 1 760 476 3962 Access Code 333562

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.
Hazard statement The mixture does not meet the criteria for classification.
Prevention Observe good industrial hygiene practices.
Response If exposed or concerned: Get medical advice/attention.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
CARBON BLACK		1333-86-4	< 1
Other components below reportable levels			90 - 100

Impurities

Chemical name	CAS number	%
QUARTZ	14808-60-7	

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments Occupational Exposure Limits for impurities are listed in Section 8. This product contains naturally occurring crystalline silica (not listed in Annex I of Directive 67/548/EEC) in quantities less than 6%.

4. First-aid measures

Inhalation Not likely, due to the form of the product. Get medical attention, if needed.
Skin contact No specific first aid measures noted. Wash with water and soap as a precaution.

Eye contact	Flush eyes immediately with large amounts of water. If irritation persists get medical attention.
Ingestion	Not likely, due to the form of the product. If ingestion of a large amount does occur, seek medical attention.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Dry chemical, CO ₂ , water spray or regular foam. Carbon dioxide (CO ₂). Use any media suitable for the surrounding fires.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	In the event of fire, wear self-contained breathing apparatus.
Fire-fighting equipment/instructions	In the event of fire, cool tanks with water spray.
Specific methods	Cool containers exposed to flames with water until well after the fire is out. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Not a fire hazard. No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	For waste disposal, see section 13 of the SDS.
Environmental precautions	None known.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. In case of insufficient ventilation, wear suitable respiratory equipment.
Conditions for safe storage, including any incompatibilities	No special restrictions on storage with other products. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep in a cool, well-ventilated place.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	
CARBON BLACK (CAS 1333-86-4)	PEL	3.5 mg/m ³	

Additional components	Type	Value	Form
INERT OR NUISANCE DUSTS (CAS SEQ250)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Additional components	Type	Value	Form
INERT OR NUISANCE DUSTS (CAS SEQ250)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

Impurities	Type	Value	Form
QUARTZ (CAS 14808-60-7)	TWA	0.3 mg/m ³	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Impurities	Type	Value	Form
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
CARBON BLACK (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.

Impurities	Type	Value	Form
QUARTZ (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	
CARBON BLACK (CAS 1333-86-4)	TWA	0.1 mg/m3	

Impurities	Type	Value	Form
QUARTZ (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Some of the components of this product are hazardous in the respirable form. However, because of the physical nature of this product, dust generation is not expected.

Appropriate engineering controls

If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.

Individual protection measures, such as personal protective equipment

Eye/face protection Eye wash fountain is recommended. Wear safety glasses; chemical goggles for fumes which may arise from thermal processing.

Hand protection For prolonged or repeated skin contact use suitable protective gloves.

Other When material is heated, wear gloves to protect against thermal burns.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH/MSHA approved respiratory protection must be provided.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Use good industrial hygiene practices in handling this material.

9. Physical and chemical properties**Appearance**

Physical state Solid.

Form Solid.

Color Black, or red

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	0 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.80 g/cm ³ estimated
Percent volatile	0 % estimated estimated
Specific gravity	1.8 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Will not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	None known.
Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Not available.
Eye contact	Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
CARBON BLACK (CAS 1333-86-4)		
Acute		
<i>Oral</i>		
LD50	Rat	> 8000 mg/kg
Impurities	Species	Test Results
QUARTZ (CAS 14808-60-7)		
Acute		
<i>Oral</i>		
LD50	Rat	500 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Mild irritant to eyes (according to the modified Kay & Calandra criteria) Mild irritant to eyes (according to the modified Kay & Calandra criteria)
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

CARBON BLACK (CAS 1333-86-4)	2B Possibly carcinogenic to humans.
QUARTZ (CAS 14808-60-7)	1 Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

QUARTZ (CAS 14808-60-7)	Known To Be Human Carcinogen.
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Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not available.
Chronic effects	<p>In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)</p> <p>In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003)</p> <p>According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. Some of the components of this product are hazardous in the respirable form. However, because of the physical nature of this product, dust generation is not expected.</p> <p>Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.</p>

12. Ecological information

Ecotoxicity	No data available for this product. This material is not expected to be harmful to aquatic life.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Material should be recycled if possible.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance Yes

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Total food additive
Indirect food additive
GRAS food additive

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

CARBON BLACK (CAS 1333-86-4)

QUARTZ (CAS 14808-60-7)

US. Massachusetts RTK - Substance List

CARBON BLACK (CAS 1333-86-4)

QUARTZ (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

CARBON BLACK (CAS 1333-86-4)

Listed: February 21, 2003

QUARTZ (CAS 14808-60-7)

Listed: October 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	13-August-2014
Revision date	07-May-2015
Version #	09
Further information	This safety datasheet only contains information relating to safety and does not replace any product information or product specification.
HMIS® ratings	Health: 1* Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 1 Flammability: 0 Instability: 0
Disclaimer	<p>The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.</p> <p>Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience currently available.</p>

SAFETY DATA SHEET



Issue Date: August 9, 2017

Revision Date: May 28, 2021

Version: 2021.1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Release

Other Means of Identification

SDS #: F6005

Recommended Use: Concrete Form Release Agent

Restrictions on Use: No Data

Supplier of the Safety Data Sheet including Address:

ChemMasters Inc.
300 Edwards Street
Madison, OH 44057

Telephone Numbers

Company Phone Number

Phone: 800-486-7866, 440-428-2105

Fax: 440-428-7091

Emergency Telephone : ChemTrec 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards:

May be harmful if swallowed and enters airways, may be harmful if inhaled, may cause respiratory irritation, may cause skin & eye irritation

Target Organs: Respiratory System

GHS Classification:

Acute toxicity, Oral – Category 5

Acute toxicity, Inhalation – Category 5

Aspiration Hazard – Category 2

Specific target organ toxicity – single exposure – Category 3, Respiratory System

Label Elements, including precautionary statements

Pictograms:



Signal Word: WARNING

Hazard Statements:

- H305** **May be Harmful if swallowed and enters airways**
- H333** **May be Harmful if inhaled.**
- H335** **May cause respiratory irritation.**

Precautionary Statement(s)

Prevention:

- P261** **Avoid breathing fume/mist/vapours/spray.**
- P271** **Use only outdoors or in a well-ventilated area.**
- P280** **Wear protective gloves/protective clothing/eye protection/face protection.**

Response:

- P301+P310+P331** **IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.**
- P304+P340+P312** **IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.**
- P370+P378** **In case of fire: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.**

Storage:

- P403+P233** **Store in a well-ventilated place. Keep container tightly closed.**
- P405** **Store Locked Up**

Disposal:

- P501** **Dispose of contents/container in accordance with local/regional/national regulations.**

Hazards Not Otherwise Classified: May cause skin and eye irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component

Hydrocarbon Oil Mixture CAS#: 8042-47-5, 64742-46-7, 64742-53-6 (Mineral Oil, Mineral Seal Oil, Distillates (petroleum), Hydro-treated Light Naphthenic)	85-100%
Tall Oil Fatty Acid CAS#: 61790-12-3	<2.0%
Benzadehyde CAS#: 100-52-7	<1.0%

Ingredients not listed on this safety data sheet are considered to be non-hazardous according to OSHA 1910.1200 or are not present above their cutoff levels. Where a range is displayed, the exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First Aid Measures

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. If not breathing, give artificial respiration. Consult a physician.

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

Skin Contact: Wash off with soap and plenty of water. If skin irritation occurs, get medical advice or attention.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide

Specific Hazards Arising from the Chemical

In a fire or if heated a pressure increase will occur and the container may burst.

Hazardous Combustion Products

Carbon dioxides & Carbon monoxide

Protective Equipment and Precautions for Firefighters

Wear self-contained breathing apparatus and full protective gear for firefighting.

Further Information

See Section 7 for safe handling and storage.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

In case of spill, evacuate the area and remove all ignition sources. Do not expose to heat, flames, or ignition sources. Material is slippery. Do not walk through spilled material. Wear appropriate personal protective equipment during any cleanup and response activities.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and Material for Containment and Cleaning Up

Dike and contain spill with inert absorbent materials. Soak up with inert material and keep in suitable, closed containers for disposal. Dispose of in accordance with specified local/regional/national/international regulations for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for Safe Storage, Including any Incompatibilities

General information: Store in cool place. Keep container tightly closed in a dry and well ventilated place. Keep away from heat (<95 degrees F/<35 degrees C) and direct sunlight. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Safe Storage: Store and use away from heat, sparks, open flame or any other ignition source.

Incompatibilities: None Known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component Exposure Limits

Mineral Oil; Mineral Seal Oil; Distillates (petroleum), Hydro-treated Light Naphthenic: Oil Mist

ACGIH TLV: TWA 5 mg/m³, STEL: 10 mg/m³

OSHA PEL: TWA 5 mg/m³

NIOSH REL: TWA 5 mg/m³, STEL: 10 mg/m³

Petroleum Hydrocarbon Distillates, CAS# 8052-41-3:

ACGIH TLV TWA: 100 ppm 8 hours

OSHA PEL: TWA 500 ppm

NIOSH REL: TWA 350 mg/m³, NIOSH Ceiling: 1800 mg/m³

Components of Petroleum Hydrocarbon Distillates, CAS# 8052-41-3:

Ethyl Benzene, CAS# 100-41-4: ACGIH TLV: TWA 20 ppm

N-Nonane, CAS# 111-84-2: ACGIH TLV: TWA 200 ppm

Trimethyl Benzene (all isomers), CAS# 25551-13-7: ACGIH TLV: TWA 25 ppm

Cumene, CAS# 98-82-8: ACGIH TWA 50 ppm 8 hr.

Appropriate Engineering Controls

Local Ventilation: Recommended

General Ventilation: Recommended

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection: Use proper protection – Safety Glasses as a minimum

Skin and Body Protection: Wash at mealtime and end of shift. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc.). Use chemical protective gloves as a minimum and wash skin promptly upon any skin contact.

Respiratory Protection: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. Wash hands before & after breaks and work day.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State

Appearance: Liquid

Color: Colorless to Light Yellow

Odor: Mild Petroleum Solvent– Light cherry scent

Odor threshold: No Data

<u>Property</u>	<u>Value</u>	<u>Remarks – Method</u>
Vapor Pressure	Not Available	
Vapor Density	Not Available	
Relative Density	Not Available	
pH:	Not Relevant	
Melting/Freezing Point	Not Relevant	
Solubility	Not Available	
Evaporation Rate	Not Available	
Flash Point	275 Degrees F (135 Degrees C)	PMCC (D93)
Flammability Limits	Not Available	
Flammability (Solid, gas)	Not Relevant	
Auto Ignition Temperature	Not Available	
Initial Boiling Point/Boiling Range	Not Available	

Decomposition Temperature
Viscosity
Specific Gravity

Not Available
Not Available
0.87

Density: 7.28 lb./gal. +/- 0.1

10. STABILITY AND REACTIVITY

Chemical Stability:

This product is chemically stable under recommended storage conditions.

Possibility of Hazardous Reactions:

None Known

Conditions to Avoid:

Store away from heat.

Incompatible Materials:

Strong acids and oxidizing agents

Hazardous Decomposition Products:

Carbon dioxides, Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Skin Contact, Eye Contact, Ingestion

Symptoms of Exposure: Product may cause chemical pneumonitis (aspiration of liquid) if swallowed and enters airways. Product may cause dizziness if inhaled. Product may cause respiratory irritation. Product may cause Skin & Eye Irritation.

Numerical measures of toxicity:

Inhalation LC50 (Inhalation of Dusts & Mists) Rat 5.7 mg/l 4 hr.
Inhalation LC50 Rat 21 mg/l 1 hr.
Oral LD50 Rat >5000 mg/kg
Dermal LD50 Rabbit >2000 mg/kg

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure

Carcinogenicity: IARC, ACGIH, NTP, OSHA

Product contains Ethyl Benzene which is classified by IARC as "possibly carcinogenic to humans" (Group 2B).

Product contains Cumene which is classified by IARC as "possibly carcinogenic to humans" (Group 2B).

Specific target organ toxicity: Single exposure – Category 3, Respiratory System,

Product may cause respiratory irritation.

Respiratory Irritation: If material is misted or sprayed, inhalation of mist may cause irritation of mucous membranes and the upper respiratory tract. Aspiration may lead to lipid pneumonia.

12. ECOLOGICAL INFORMATION

Eco toxicity: This product contains components that are potentially toxic to freshwater and saltwater ecosystems. This product will normally float on water. It may be harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment.

Persistence and Degradability: Not Determined.

Bioaccumulation: Not Determined.

Mobility: Not Determined.

Other Adverse Effects: Not Determined.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes: This product is not a hazardous waste under RCRA. Dispose of in conformance with all federal, state and local regulations.

Contaminated Packaging: Dispose of as unused material.

14. TRANSPORT INFORMATION

D.O.T.:

U.S. DOT Bulk (Over 119 gallons), Not regulated

U.S. DOT Non-Bulk (\leq 119 gallons), Not regulated

I.A.T.A.: Non-Bulk (\leq 119 gallons), Not a Dangerous Good

I.M.D.G.: Non-Bulk (\leq 119 gallons), Not a Dangerous Good

Marine Pollutant: Not listed in Appendix B to 49 CFR 172.101

15. REGULATORY INFORMATION

International Inventories

TSCA: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

US Federal Regulations

SARA 302 (Extremely Hazardous Substances): None Known

SARA 311/312 Hazard Categories: Acute Health Hazard, Chronic Health Hazard, Fire Hazard

SARA Section 313: This product contains the following components in concentrations greater than 0.1% for carcinogenic substances and/or 1.0% of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372: **None Known**

CWA (Clean Water Act): This product contains hydrocarbon oils and may be subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

Supplemental State Compliance Information

California:

This product contains chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm. <0.1% Ethyl Benzene, CAS# 100-41-4; <0.1% Cumene, CAS# 98-82-8

New Jersey Right To Know:

CAS Number	Component Name
8042-47-5	Mineral Oil
64742-53-6	Hydro-Treated Light Naphthenic Oil
8052-41-3	Petroleum Hydrocarbon Distillates
124-18-5	N-Decane
111-84-2	N-Nonane
95-63-6	1,2,4-Trimethylbenzene
100-41-4	Ethyl Benzene
98-82-8	Cumene

Massachusetts Right To Know:

CAS Number	Component Name
8042-47-5	Mineral Oil
64742-53-6	Hydro-Treated Light Naphthenic Oil

Pennsylvania Right To Know:

CAS Number	Component Name
8042-47-5	Mineral Oil
8052-41-3	Petroleum Hydrocarbon Distillates
124-18-5	N-Decane
111-84-2	N-Nonane
95-63-6	1,2,4-Trimethylbenzene
100-41-4	Ethyl Benzene
98-82-8	Cumene

U.S. EPA Label Information: No Data

16. OTHER INFORMATION

HMIS Classification:

Health hazard:	1
Flammability:	1
Physical Hazards:	0

NFPA Rating:

Health hazard:	1
Fire:	1
Reactivity Hazard:	0

Issuance Date: August 9, 2017

Revision Date: May 28, 2021

Revision Note: Reviewed and Updated Shipping information for bulk loads

Date of Previous Version: June 25, 2018

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



SAFETY DATA SHEET

1. Identification

Product identifier Rapid Set Acrylic Primer

Other means of identification

Product code 181040000

Recommended use Industrial use.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name CTS Cement Manufacturing Corporation

Address 12442 Knott Street
Garden Grove, CA
92841

United States

Telephone 1-800-929-3030

E-mail info@ctscement.com

Contact person Safety Officer

Emergency telephone number 1-800-929-3030 (8 AM - 5 PM)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Carcinogenicity Category 2

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Suspected of causing cancer.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Response If exposed or concerned: Get medical advice/attention.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Benzophenone	119-61-9	0-0.3

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with warm water and soap. Do not peel polymer from the skin. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	Not applicable, non-combustible.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing should be worn when fighting chemical fires.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Collect in containers and seal securely. Containers must be labeled. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. To maintain product quality, do not store in heat or direct sunlight. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Benzophenone (CAS 119-61-9)	TWA	0.5 mg/m ³

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Use protective gloves made of: Nitrile.
Other	Wear suitable protective clothing.
Respiratory protection	No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Observe any medical surveillance requirements.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Blue.
Odor	Low.
Odor threshold	Not available.
pH	Not applicable.
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	413.6 - 705.2 °F (212 - 374 °C)
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	1.07
Relative density temperature	70 °F (21.11 °C)
Solubility(ies)	
Solubility (water)	Not applicable.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.
Other information	
Bulk density	Not applicable.
VOC (Weight %)	0 g/l

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation No adverse effects due to inhalation are expected.
Skin contact Prolonged skin contact may cause temporary irritation.
Eye contact Direct contact with eyes may cause temporary irritation.
Ingestion May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Ingestion may cause irritation and malaise.
Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.
Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Benzophenone (CAS 119-61-9) 2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Benzophenone (CAS 119-61-9)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.21 - 0.37 mg/l, 24 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	13.2 - 15.3 mg/l, 96 hours
			5.96 - 7.41 mg/l, 7 days

Persistence and degradability No data available.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Benzophenone (CAS 119-61-9) 0.1 % One-Time Export Notification only.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986

(SARA) Hazard categories Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Benzophenone (CAS 119-61-9)

WARNING

CANCER and REPRODUCTIVE HARM - www.P65Warnings.ca.gov

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 4-June-2018

Revision date -

Version # 01

HMS® ratings Health: 1*
Flammability: 0
Physical hazard: 0

Disclaimer CTS Cement Manufacturing Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



SAFETY DATA SHEET

1. Identification

Product identifier Rapid Set TRU PC Polished Concrete

Other means of identification

Product code 180010050

Recommended use Industrial use.

Recommended restrictions Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Manufacturer/Importer/Supplier/Distributor information

Company name CTS Cement Manufacturing Corporation

Address 12442 Knott Street
Garden Grove, CA 92841
United States

Telephone 1-800-929-3030

E-mail info@ctscement.com

Contact person Safety Officer

Emergency telephone number 1-800-929-3030 (8 AM - 5 PM)

2. Hazard(s) identification

Physical hazards Not classified.

Health Hazards

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A
Reproductive toxicity	Category 1B
Specific Target Organ Toxicity, Single Exposure	Category 3 respiratory tract irritation
Specific Target Organ Toxicity, Repeated Exposure	Category 2 (Lungs)

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes skin irritation. Causes serious eye damage. May cause cancer. May cause respiratory irritation. May cause damage to organs (Lungs) through prolonged or repeated exposure.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash thoroughly after handling. Use in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response If exposed or concerned: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

Storage Keep container tightly closed and store in a dry location.

Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Calcium Sulfoaluminate Cement	960375-09-1	20-40
Silica, quartz	14808-60-7	40-56
Amorphous Silica; Silica dioxide	61790-53-2	10-18
Limestone	1317-65-3	0.1-8
Calcium Hydroxide; Slaked Lime; Hydrated Lime	1305-62-0	0.1-3
Anhydrous Calcium Sulfate	7778-18-9	0.5-2
Lithium Carbonate	554-13-2	<0.3

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Immediately rinse mouth and drink plenty of water. Call an ambulance and take these instructions. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Upper respiratory tract irritation. Coughing. Discomfort in the chest. Shortness of breath. Wheezing. Skin irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Stop the flow of material, if this is without risk. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Collect dust using a vacuum cleaner. Minimize dust generation and accumulation. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains or water courses.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide appropriate exhaust ventilation at places where dust is formed. Minimize dust generation and accumulation. Do not breathe dust. Do not get this material in contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed and store in a dry location. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Anhydrous Calcium Sulfate (CAS 7778-18-9)	PEL	5 mg/m ³	Respirable fraction.
Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)	PEL	15 mg/m ³	Total dust.
		5 mg/m ³	Respirable fraction.
Limestone (CAS 1317-65-3)	PEL	15 mg/m ³	Total dust.
		5 mg/m ³	Respirable fraction.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Amorphous Silica; Silica dioxide (CAS 61790-53-2)	TWA	0.8 mg/m ³	
		20 mppcf	
Silica, quartz (CAS 14808-60-7)	TWA	0.3 mg/m ³	Total dust.
		0.1 mg/m ³	Respirable.
		2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Anhydrous Calcium Sulfate (CAS 7778-18-9)	TWA	10 mg/m ³	Inhalable fraction. TWA
Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)	TWA	0.025 mg/m ³	Respirable fraction.
Silica, quartz (CAS 14808-60-7)			

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Amorphous Silica; Silica dioxide (CAS 61790-53-2)	REL	6 mg/m ³	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Anhydrous Calcium Sulfate (CAS 7778-18-9)	TWA	6 mg/m3	Respirable.
	TWA	5 mg/m3	
Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)	TWA	10 mg/m3	Total
		5 mg/m3	
Limestone (CAS 1317-65-3)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
Silica, quartz (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
Biological limit values	No biological exposure limits noted for the ingredient(s).		
Exposure guidelines	Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.		
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. Eye wash facilities and emergency shower must be available when handling this product.		
Individual protection measures, such as personal protective equipment			
Eye/face protection	Wear safety glasses or safety goggles unless full face respirator is in use.		
Skin protection			
Hand protection	Wear appropriate chemical resistant gloves.		
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.		
Respiratory protection	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.		
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.		
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Observe any medical surveillance requirements.		

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Powder.
Color	Gray.

Odor Low.

Odor threshold Not available.

pH 11 – 12 when wet

Melting point/freezing point Not applicable.

Initial boiling point and boiling Not applicable.

range

Flash point Not applicable.

Evaporation rate Not applicable.

Flammability (solid, gas) Non combustible.

Upper/lower flammability or explosive limits

Flammability limit – lower (%) Not applicable.

Flammability limit – upper (%) Not applicable.

Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	2.98 @ 20°C
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	2462 °F (1350 °C)
Viscosity	Not applicable.
Other information	
Bulk density	60 lb/ft ³
Partition coefficient (oil/water)	Not applicable.
VOC (Weight %)	8 g/l when mixed with water

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Incompatible materials	Powerful oxidizers.
Hazardous decomposition products	Carbon oxides, Sulfur oxides, Silicium oxide.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. Inhalation of dusts may cause respiratory irritation. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. Prolonged contact with wet cement/mixture may cause burns.
Eye contact	Causes serious eye damage. Prolonged contact with wet cement/mixture may cause burns.
Ingestion	Swallowing may cause gastrointestinal irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Upper respiratory tract irritation. Coughing. Discomfort in the chest. Shortness of breath. Wheezing. Skin irritation.

Information on toxicological effects

Acute toxicity	May cause respiratory irritation.	
Components	Species	Test Results
Anhydrous Calcium Sulfate (CAS 7778-18-9)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 3.26 mg/l, 4 Hours
<i>Oral</i>		
LD50	Mouse	4704 mg/kg
	Rat	> 1581 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitization		
Respiratory sensitization	No data available.	
Skin sensitization	No data available.	

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity May cause cancer.
 In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity

Amorphous Silica; Silica dioxide (CAS 61790-53-2) 3 Not classifiable as to carcinogenicity to humans.
 Silica, quartz (CAS 14808-60-7) 1 Carcinogenic to humans.

NTP Report on Carcinogens

Silica, quartz (CAS 14808-60-7) Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity May damage fertility or the unborn child.
Specific target organ toxicity - single exposure May cause respiratory irritation.
Specific target organ toxicity - repeated exposure May cause damage to organs (Lungs) through prolonged or repeated exposure.
Aspiration hazard Due to the physical form of the product it is not an aspiration hazard.
Chronic effects Prolonged or repeated exposure may cause lung injury, including silicosis. May cause skin disorders if contact is repeated or prolonged.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability No data is available on the degradability of this product.
Bioaccumulative potential No data available.
Mobility in soil No data available.
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT
 Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations**US. Massachusetts RTK - Substance List**

Amorphous Silica; Silica dioxide (CAS 61790-53-2)
Anhydrous Calcium Sulfate (CAS 7778-18-9)
Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)
Limestone (CAS 1317-65-3)
Lithium Carbonate (CAS 554-13-2)
Silica, quartz (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act

Amorphous Silica; Silica dioxide (CAS 61790-53-2)
Anhydrous Calcium Sulfate (CAS 7778-18-9)
Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)
Limestone (CAS 1317-65-3)
Lithium Carbonate (CAS 554-13-2)
Silica, quartz (CAS 14808-60-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Amorphous Silica; Silica dioxide (CAS 61790-53-2)
Anhydrous Calcium Sulfate (CAS 7778-18-9)
Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)
Limestone (CAS 1317-65-3)
Silica, quartz (CAS 14808-60-7)

US. Rhode Island RTK

Lithium Carbonate (CAS 554-13-2)

US. California Proposition 65**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Lithium Carbonate (CAS 554-13-2)

Silica, quartz (CAS 14808-60-7)

 WARNINGCANCER and REPRODUCTIVE HARM - www.P65Warnings.ca.gov**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 27-December-2018**Revision date** 27-December-2018**Version #** 02**HMIS® ratings** Health: 3*
Flammability: 0
Physical hazard: 0**Disclaimer** CTS Cement Manufacturing Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/17/2016

Reviewed on 03/17/2016

1 Identification

- **Product identifier**
- **Trade name:** 1107 Advantage™ Grout
- **Article number:** 83-67435
- **Application of the substance / the mixture**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dayton® Superior
4226 Kansas Avenue
Kansas City, KS 66106

Tel.: (866) 329-8724

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

- **Information department:** Environmental, Health, and Safety department.

2 Hazard(s) identification

- **Classification of the substance or mixture**
Skin Corr. 1C H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Carc. 1A H350 May cause cancer.
STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



- **Signal word** Danger
- **Hazard-determining components of labeling:**
Cement, portland, chemicals
Quartz (SiO₂)
- **Hazard statements**
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause cancer.
May cause respiratory irritation.
- **Precautionary statements**
Do not breathe dusts or mists.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
PHYSICAL HAZARD	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

14808-60-7	Quartz (SiO ₂)	50-75%
65997-15-1	Cement, portland, chemicals	25-50%
7778-18-9	calcium sulphate, natural	≤ 5%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Seek medical treatment.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

14808-60-7 Quartz (SiO₂)

PEL	see Quartz listing
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *as respirable fraction

65997-15-1 Cement, portland, chemicals

PEL	Long-term value: 50 mppcf or 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 1* mg/m ³ E; *as respirable fraction

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7778-18-9 calcium sulphate, natural

PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 10* mg/m ³ *as inhalable fraction

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Solid
Color: According to product specification

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: >999 °C (>1830 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not determined.

- **Ignition temperature:**

Decomposition temperature: Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

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· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not applicable.
· Density at 20 °C (68 °F):	2.8386 g/cm ³ (23.688 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	100.0 %
· Other information	No further relevant information available.
· Volatile Organic Compounds:	Not determined

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** May cause skin irritation.
- **on the eye:** No irritating effect known.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
14808-60-7	Quartz (SiO ₂)	1
13463-67-7	titanium dioxide	2B
1309-37-1	diiron trioxide	3

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· NTP (National Toxicology Program)	
14808-60-7	Quartz (SiO ₂)
· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of as normal garbage. Do not allow product to reach sewage system.
It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to Federal, State, and Local regulations.

14 Transport information

- | | |
|-------------------------------------|---------------|
| · UN-Number | |
| · DOT, ADR, ADN, IMDG, IATA | Not Regulated |
| · UN proper shipping name | |
| · DOT, ADR, ADN, IMDG, IATA | Not Regulated |
| · Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | Not Regulated |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Not Regulated |
| · Environmental hazards: | |
| · Marine pollutant: | No |

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- | | |
|---|--|
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · U.S. Domestic Ground Shipments: | Same as listed for Standard Shipments above. |
| · U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments: | Same as listed for Standard Shipments above. |
| · Emergency Response Guide (ERG) Number: | Not determine |
| · UN "Model Regulation": | Not Regulated |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

1344-28-1	aluminium oxide	≤1%
-----------	-----------------	-----

· TSCA (Toxic Substances Control Act):

14808-60-7	Quartz (SiO ₂)
65997-15-1	Cement, portland, chemicals
7778-18-9	calcium sulphate, natural
1344-28-1	aluminium oxide
65997-16-2	Cement, alumina, chemicals
9084-06-4	Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt
13463-67-7	titanium dioxide
1309-37-1	diiron trioxide

· Proposition 65
· Chemicals known to the State of California (Prop. 65) to cause cancer:

14808-60-7	Quartz (SiO ₂)
13463-67-7	titanium dioxide

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories
· EPA (Environmental Protection Agency)

None of the ingredients is listed.

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· TLV (Threshold Limit Value established by ACGIH)		
14808-60-7	Quartz (SiO ₂)	A2
1344-28-1	aluminium oxide	A4
13463-67-7	titanium dioxide	A4
1309-37-1	diiron trioxide	A4
· MAK (German Maximum Workplace Concentration)		
14808-60-7	Quartz (SiO ₂)	1
1344-28-1	aluminium oxide	2
13463-67-7	titanium dioxide	3A
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
14808-60-7	Quartz (SiO ₂)	
13463-67-7	titanium dioxide	

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



· **Signal word** Danger

· **Hazard-determining components of labeling:**

Cement, portland, chemicals

Quartz (SiO₂)

· **Hazard statements**

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

· **Precautionary statements**

Do not breathe dusts or mists.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER/doctor.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The provided information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environmental, Health & Safety Department

· **Contact:** Environmental, Health & Safety Manager

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Trade name: 1107 Advantage™ Grout

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· Date of preparation / last revision 03/17/2016 / 257**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Corr. 1C: Skin corrosion/irritation, Hazard Category 1C

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 1A: Carcinogenicity, Hazard Category 1A

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 03/05/2019

1 Identification

- **Product identifier**

- **Trade name:** Cure & Seal 25% J22UV

- **Article number:** 83-69444

- **Application of the substance / the mixture**

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Dayton® Superior
4226 Kansas Avenue
Kansas City, KS 66106

Tel.: (866) 329-8724

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

- **Information department:** Environmental, Health, and Safety department.

2 Hazard(s) identification

- **Classification of the substance or mixture**

Flam. Liq. 3 H226 Flammable liquid and vapor.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Carc. 1B H350 May cause cancer.

STOT RE 1 H372 Causes damage to the central nervous system through prolonged or repeated exposure.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

1,2,4-trimethylbenzene

Solvent naphtha (petroleum), light arom.

Solvent naphtha (petroleum), medium aliph.
xylene

- **Hazard statements**

Flammable liquid and vapor.

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause cancer.

Causes damage to the central nervous system through prolonged or repeated exposure.

Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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Use explosion-proof electrical/ventilating/lighting/equipment.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

HEALTH	2
FIRE	2
PHYSICAL HAZARD	0

Health = *2

Fire = 2

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

64742-95-6	Solvent naphtha (petroleum), light arom.	≥10-<25%
64742-88-7	Solvent naphtha (petroleum), medium aliph.	≥10-<25%
95-63-6	1,2,4-trimethylbenzene	≥10-<16%
8052-41-3	Stoddard solvent	≥0.1-<2.75%
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	≥0.1-<2.75%
1330-20-7	xylene	≥0.1-<2.2%
98-82-8	cumene	≥0.25-<1.5%
100-41-4	ethylbenzene	≥0.1-<0.2%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

In the event of persistent symptoms receive medical treatment.

· **After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.

Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

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- **After swallowing:** Seek medical treatment.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, sand, extinguishing powder. Do not use water.
Foam
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

95-63-6	1,2,4-trimethylbenzene	140 ppm
8052-41-3	Stoddard solvent	300 mg/m ³
1330-20-7	xylene	130 ppm
98-82-8	cumene	50 ppm
108-67-8	mesitylene	140 ppm
526-73-8	1,2,3-trimethylbenzene	140 ppm
100-41-4	ethylbenzene	33 ppm
103-65-1	propylbenzene	3.7 ppm
91-20-3	naphthalene	15 ppm

- **PAC-2:**

95-63-6	1,2,4-trimethylbenzene	360 ppm
8052-41-3	Stoddard solvent	1,800 mg/m ³

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1330-20-7	xylene	920* ppm
98-82-8	cumene	300 ppm
108-67-8	mesitylene	360 ppm
526-73-8	1,2,3-trimethylbenzene	360 ppm
100-41-4	ethylbenzene	1100* ppm
103-65-1	propylbenzene	41 ppm
91-20-3	naphthalene	83 ppm

· PAC-3:

95-63-6	1,2,4-trimethylbenzene	480 ppm
8052-41-3	Stoddard solvent	29500** mg/m ³
1330-20-7	xylene	2500* ppm
98-82-8	cumene	730 ppm
108-67-8	mesitylene	480 ppm
526-73-8	1,2,3-trimethylbenzene	480 ppm
100-41-4	ethylbenzene	1800* ppm
103-65-1	propylbenzene	240 ppm
91-20-3	naphthalene	500 ppm

7 Handling and storage

· **Handling:**· **Precautions for safe handling**

Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:** cool and dry

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:** Keep receptacle tightly sealed.

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

95-63-6 1,2,4-trimethylbenzene

REL	Long-term value: 125 mg/m ³ , 25 ppm
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TLV	Long-term value: 123 mg/m ³ , 25 ppm
8052-41-3 Stoddard solvent	
PEL	Long-term value: 2900 mg/m ³ , 500 ppm
REL	Long-term value: 350 mg/m ³ Ceiling limit value: 1800* mg/m ³ *15-min
TLV	Long-term value: 525 mg/m ³ , 100 ppm
1330-20-7 xylene	
PEL	Long-term value: 435 mg/m ³ , 100 ppm
REL	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm BEI
98-82-8 cumene	
PEL	Long-term value: 245 mg/m ³ , 50 ppm Skin
REL	Long-term value: 245 mg/m ³ , 50 ppm Skin
TLV	Long-term value: (246) NIC-0.5 mg/m ³ , (50) NIC-0.1 ppm NIC-A3
100-41-4 ethylbenzene	
PEL	Long-term value: 435 mg/m ³ , 100 ppm
REL	Short-term value: 545 mg/m ³ , 125 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Long-term value: 87 mg/m ³ , 20 ppm BEI
· Ingredients with biological limit values:	
1330-20-7 xylene	
BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
100-41-4 ethylbenzene	
BEI	0.7 g/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)
	- Medium: end-exhaled air Time: not critical Parameter: Ethyl benzene (semi-quantitative)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

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Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Suitable respiratory protective device recommended.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Color: According to product specification

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 138 °C (280.4 °F)

· **Flash point:** 41 °C (105.8 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 265 °C (509 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower: 0.6 Vol %

Upper: 7.5 Vol %

· **Vapor pressure at 20 °C (68 °F):** 6.6 hPa (5 mm Hg)

· **Density at 20 °C (68 °F):** 0.88773 g/cm³ (7.40811 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

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· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	67.7 %
Solids content:	25.0 %
· Other information	No further relevant information available.
· Volatile Organic Compounds:	Contains less than 700 g/L.

10 Stability and reactivity

- **Reactivity** No decomposition if stored and applied as directed.
- **Chemical stability** No decomposition if stored and applied as directed
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
64742-95-6 Solvent naphtha (petroleum), light arom.		
Oral	LD50	>6,800 mg/kg (rat)
Dermal	LD50	>3,400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)
64742-88-7 Solvent naphtha (petroleum), medium aliph.		
Oral	LD50	>6,500 mg/kg (rat)
Dermal	LD50	>3,000 mg/kg (rab)
Inhalative	LC50/4 h	>14 mg/l (rat)
95-63-6 1,2,4-trimethylbenzene		
Oral	LD50	5,000 mg/kg (rat)
98-82-8 cumene		
Oral	LD50	1,400 mg/kg (rat)
Dermal	LD50	12,300 mg/kg (rabbit)
Inhalative	LC50/4 h	24.7 mg/l (mouse)

- **Primary irritant effect:**
- **on the skin:** May cause skin irritation.

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- **on the eye:**
Strong irritant with the danger of severe eye injury.
Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
Carcinogenic.
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

1330-20-7	xylene	3
98-82-8	cumene	2B
100-41-4	ethylbenzene	2B
91-20-3	naphthalene	2B

- **NTP (National Toxicology Program)**

98-82-8	cumene	R
91-20-3	naphthalene	R

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Water hazard class 1 (Self-assessment): slightly hazardous for water
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of as normal garbage. Do not allow product to reach sewage system.
It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to Federal, State, and Local regulations.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA 	UN1268
<ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG, IATA 	Petroleum distillates, n.o.s. 1268 Petroleum distillates, n.o.s. PETROLEUM DISTILLATES, N.O.S.
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · ADR, IMDG, IATA 	
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA 	III
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: 	No
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category 	Warning: Flammable liquids 30 F-E,S-E A
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	<hr style="border-top: 1px dashed #000;"/>
<ul style="list-style-type: none"> · ADR · Excepted quantities (EQ) 	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<ul style="list-style-type: none"> · U.S. Domestic Ground Shipments: 	Combustible liquids, n.o.s. (Petroleum Distillates), NA1993, PG III
<ul style="list-style-type: none"> · U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments: 	DOT: Not regulated (Reclassified as per 49CFR 173.150).

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· Emergency Response Guide (ERG) Number:	Not determine
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1268 PETROLEUM DISTILLATES, N.O.S., 3, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

95-63-6	1,2,4-trimethylbenzene	≥10-<16%
1330-20-7	xylene	≥0.1-<2.2%
98-82-8	cumene	≥0.25-<1.5%
100-41-4	ethylbenzene	≥0.1-<0.2%
91-20-3	naphthalene	<0.025%

· **TSCA (Toxic Substances Control Act):**

64742-95-6	Solvent naphtha (petroleum), light arom.
64742-88-7	Solvent naphtha (petroleum), medium aliph.
95-63-6	1,2,4-trimethylbenzene
8052-41-3	Stoddard solvent
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy
1330-20-7	xylene
98-82-8	cumene
6422-86-2	1,4-benzenedicarboxylic acid, bis(2-ethylhexyl) ester
25551-13-7	Trimethylbenzene
108-67-8	mesitylene
526-73-8	1,2,3-trimethylbenzene
100-41-4	ethylbenzene
41556-26-7	Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester
104810-48-2	poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxy-
103-65-1	propylbenzene
104810-47-1	poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-
82919-37-7	Decanedioic acid, methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester
91-20-3	naphthalene

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· **Proposition 65**· **Chemicals known to the State of California (Prop. 65) to cause cancer:**

64742-95-6	Solvent naphtha (petroleum), light arom.
98-82-8	cumene
100-41-4	ethylbenzene
91-20-3	naphthalene

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

95-63-6	1,2,4-trimethylbenzene	II
1330-20-7	xylene	I
98-82-8	cumene	D, CBD
108-67-8	mesitylene	II
526-73-8	1,2,3-trimethylbenzene	II
100-41-4	ethylbenzene	D
91-20-3	naphthalene	C, CBD

· **TLV (Threshold Limit Value established by ACGIH)**

1330-20-7	xylene	A4
100-41-4	ethylbenzene	A3
91-20-3	naphthalene	A4

· **MAK (German Maximum Workplace Concentration)**

100-41-4	ethylbenzene	3A
91-20-3	naphthalene	2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).· **Hazard pictograms**

GHS02 GHS07 GHS08

· **Signal word** Danger· **Hazard-determining components of labeling:**

1,2,4-trimethylbenzene
 Solvent naphtha (petroleum), light arom.
 Solvent naphtha (petroleum), medium aliph.
 xylene

· **Hazard statements**

Flammable liquid and vapor.

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*Harmful if inhaled.**Causes skin irritation.**Causes serious eye irritation.**May cause cancer.**Causes damage to the central nervous system through prolonged or repeated exposure.**Harmful to aquatic life with long lasting effects.***· Precautionary statements***Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Use explosion-proof electrical/ventilating/lighting/equipment.**If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.***· National regulations:****· Information about limitation of use:***Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.***· Water hazard class: Water hazard class 3 (Self-assessment): extremely hazardous for water.****· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

16 Other information

*The provided information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.**This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.***· Department issuing SDS: Environmental, Health & Safety Department****· Contact: Environmental, Health & Safety Manager****· Date of preparation / last revision 03/05/2019 / 426****· Abbreviations and acronyms:***ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**ACGIH: American Conference of Governmental Industrial Hygienists**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**OSHA: Occupational Safety & Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**BEI: Biological Exposure Limit**Flam. Liq. 3: Flammable liquids – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A**Carc. 1B: Carcinogenicity – Category 1B**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1**Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3*

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/04/2019

Reviewed on 03/04/2019

1 Identification

· **Product identifier**

· **Trade name:** Magic Kote®

· **Article number:** 83-243000

· **Application of the substance / the mixture**

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Dayton® Superior
4226 Kansas Avenue
Kansas City, KS 66106

Tel.: (866) 329-8724

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

· **Information department:** Environmental, Health, and Safety department.

2 Hazard(s) identification

· **Classification of the substance or mixture**

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

· **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

Distillates (petroleum), hydrotreated light naphthenic

· **Hazard statements**

May cause an allergic skin reaction.

May cause respiratory irritation.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor if you feel unwell.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 1

Reactivity = 0

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US

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Trade name: Magic Kote®

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· HMIS-ratings (scale 0 - 4)

HEALTH	1	Health = 1
FIRE	1	Fire = 1
PHYSICAL HAZARD	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

64742-53-6	Distillates (petroleum), hydrotreated light naphthenic	≥10- <60%
64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	≥10- <12%
64742-62-7	Residual oils (petroleum), solvent-dewaxed	≥0.1- <10%
64742-57-0	Residual oils (petroleum), hydrotreated	≥0.1- <10%
112-90-3	(Z)-octadec-9-enylamine	≥0.25- <0.4%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
In the event of persistent symptoms receive medical treatment.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Seek medical treatment.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**

- **Protective equipment:**

Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:** Do not allow product to reach sewage system or any water course.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

- **PAC-1:**

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	140 mg/m ³
112-80-1	oleic acid, pure	220 mg/m ³
111-42-2	2,2'-iminodiethanol	3 mg/m ³

- **PAC-2:**

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	1,500 mg/m ³
112-80-1	oleic acid, pure	2,400 mg/m ³
111-42-2	2,2'-iminodiethanol	28 mg/m ³

- **PAC-3:**

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	8,900 mg/m ³
112-80-1	oleic acid, pure	15,000 mg/m ³
111-42-2	2,2'-iminodiethanol	130 mg/m ³

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.

- **Information about protection against explosions and fires:** No special measures required.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:** cool and dry

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** None.

- **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Eye protection:** Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Color:	According to product specification
- **Odor:** Characteristic
- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	>218 °C (>424.4 °F)
- **Flash point:** 140 °C (284 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 307 °C (584.6 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.

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· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density at 20 °C (68 °F):	0.89 g/cm ³ (7.42705 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	65.5 %
· Other information	No further relevant information available.
· Volatile Organic Compounds:	Contains less than 250 g/L.

10 Stability and reactivity

- **Reactivity** No decomposition if stored and applied as directed.
- **Chemical stability** No decomposition if stored and applied as directed
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** May cause skin irritation.
- **on the eye:** No irritating effect known.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

111-42-2 | 2,2'-iminodiethanol

2B

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<ul style="list-style-type: none"> · NTP (National Toxicology Program)
<ul style="list-style-type: none"> · None of the ingredients is listed.
<ul style="list-style-type: none"> · OSHA-Ca (Occupational Safety & Health Administration)
<ul style="list-style-type: none"> · None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to Federal, State, and Local regulations.

14 Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · UN-Number | Not Regulated |
| <ul style="list-style-type: none"> · DOT, ADR, ADN, IMDG, IATA | Not Regulated |
| <ul style="list-style-type: none"> · UN proper shipping name | Not Regulated |
| <ul style="list-style-type: none"> · DOT, ADR, ADN, IMDG, IATA | Not Regulated |
| <ul style="list-style-type: none"> · Transport hazard class(es) | Not Regulated |
| <ul style="list-style-type: none"> · DOT, ADR, ADN, IMDG, IATA · Class | Not Regulated |
| <ul style="list-style-type: none"> · Packing group | Not Regulated |
| <ul style="list-style-type: none"> · DOT, ADR, IMDG, IATA | Not Regulated |
| <ul style="list-style-type: none"> · Environmental hazards: | Product contains environmentally hazardous substances: (Z)-octadec-9-enylamine |
| <ul style="list-style-type: none"> · Marine pollutant: | Yes |

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· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Remarks:	Add "Marine Pollutant" to end of proper shipping name if shipping in a bulk container (>119 gallons).
· ADR	
· U.S. Domestic Ground Shipments:	Not Regulated by D.O.T.
· U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments:	Same as listed for Standard Shipments above.
· Emergency Response Guide (ERG) Number:	Not determine
· UN "Model Regulation":	Not Regulated

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):
--

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):
--

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

111-42-2	2,2'-iminodiethanol	<0.1%
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· TSCA (Toxic Substances Control Act):

64742-53-6	Distillates (petroleum), hydrotreated light naphthenic
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64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic
------------	---

64742-62-7	Residual oils (petroleum), solvent-dewaxed
------------	--

64742-57-0	Residual oils (petroleum), hydrotreated
------------	---

72623-83-7	Lubricating oils, petroleum
------------	-----------------------------

112-80-1	oleic acid, pure
----------	------------------

112-90-3	(Z)-octadec-9-enylamine
----------	-------------------------

8051-30-7	Coconut oil, reaction products with diethanolamine
-----------	--

111-42-2	2,2'-iminodiethanol
----------	---------------------

· Proposition 65

· Chemicals known to the State of California (Prop. 65) to cause cancer:

111-42-2	2,2'-iminodiethanol
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· Chemicals known to cause reproductive toxicity for females:
--

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:
--

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

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- **Carcinogenicity categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

111-42-2 2,2'-iminodiethanol

A3

- **MAK (German Maximum Workplace Concentration)**

112-80-1 oleic acid, pure

3A

111-42-2 2,2'-iminodiethanol

3B

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

Distillates (petroleum), hydrotreated light naphthenic

- **Hazard statements**

May cause an allergic skin reaction.

May cause respiratory irritation.

- **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor if you feel unwell.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **National regulations:**

- **Water hazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environmental, Health & Safety Department

- **Contact:** Environmental, Health & Safety Manager

- **Date of preparation / last revision** 03/04/2019 / 44

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

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ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 04/24/2017

1 Identification

- **Product identifier**
- **Trade name:** Sure Hard™ Densifier J17
- **Article number:** 83-68082
- **Application of the substance / the mixture**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dayton® Superior
4226 Kansas Avenue
Kansas City, KS 66106

Tel.: (866) 329-8724

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

- **Information department:** Environmental, Health, and Safety department.

2 Hazard(s) identification

- **Classification of the substance or mixture**
Acute Tox. 4 H302 Harmful if swallowed.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Silicic acid, sodium salt
- **Hazard statements**
Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.
- **Precautionary statements**
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
Specific treatment (see on this label).
Rinse mouth.
Take off contaminated clothing and wash it before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 0
Reactivity = 0

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Trade name: **Sure Hard™ Densifier J17**

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· HMIS-ratings (scale 0 - 4)

HEALTH	1	Health = 1
FIRE	0	Fire = 0
PHYSICAL HAZARD	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

1344-09-8	Silicic acid, sodium salt	≥10-<20%
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
In the event of persistent symptoms receive medical treatment.
- **After inhalation:**
Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Seek medical treatment.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

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- **Environmental precautions:**
Dilute with plenty of water.
Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

1344-09-8	Silicic acid, sodium salt	5.9 mg/m ³
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· **PAC-2:**

1344-09-8	Silicic acid, sodium salt	65 mg/m ³
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· **PAC-3:**

1344-09-8	Silicic acid, sodium salt	390 mg/m ³
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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** cool and dry
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

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Reviewed on 04/24/2017

Trade name: Sure Hard™ Densifier J17

(Contd. of page 3)

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid
Color: According to product specification

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 100 °C (212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.
Upper: Not determined.

· **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

· **Density at 20 °C (68 °F):** 1.21933 g/cm³ (10.17531 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: Fully miscible.

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Trade name: Sure Hard™ Densifier J17

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- | | |
|---|--|
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Water: | 78.5 % |
| Solids content: | 24.0 % |
| · Other information | No further relevant information available. |
| · Volatile Organic Compounds: | Contains 0 g/L. |

10 Stability and reactivity

- **Reactivity** No decomposition if stored and applied as directed.
- **Chemical stability** No decomposition if stored and applied as directed
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** May cause skin irritation.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)
--

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)
--

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.

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Trade name: Sure Hard™ Densifier J17

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- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of as normal garbage. Do not allow product to reach sewage system.
It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to Federal, State, and Local regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, ADR, ADN, IMDG, IATA 	Not Regulated
<ul style="list-style-type: none"> · UN proper shipping name · DOT, ADR, ADN, IMDG, IATA 	Not Regulated
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT, ADR, ADN, IMDG, IATA · Class 	Not Regulated
<ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA 	Not Regulated
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: 	No
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR 	Same as listed for Standard Shipments above.
<ul style="list-style-type: none"> · U.S. Domestic Ground Shipments: · U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments: 	Same as listed for Standard Shipments above.
<ul style="list-style-type: none"> · Emergency Response Guide (ERG) Number: 	Not determine
<ul style="list-style-type: none"> · UN "Model Regulation": 	Not Regulated

US

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 04/24/2017

Trade name: Sure Hard™ Densifier J17

(Contd. of page 6)

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to the State of California (Prop. 65) to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Silicic acid, sodium salt

· **Hazard statements**

Harmful if swallowed.

Causes skin irritation.

Causes serious eye damage.

· **Precautionary statements**

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 04/24/2017

Trade name: Sure Hard™ Densifier J17

(Contd. of page 7)

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

Take off contaminated clothing and wash it before reuse.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

· Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

The provided information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environmental, Health & Safety Department

· Contact: Environmental, Health & Safety Manager

· Date of preparation / last revision 03/05/2019 / 143

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 03/05/2019

1 Identification

- **Product identifier**
- **Trade name:** Ultra Seal EF
- **Article number:** 83-309454
- **Application of the substance / the mixture**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dayton® Superior
4226 Kansas Avenue
Kansas City, KS 66106

Tel.: (866) 329-8724

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

- **Information department:** Environmental, Health, and Safety department.

2 Hazard(s) identification

- **Classification of the substance or mixture** The product is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
PHYSICAL HAZARD	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 03/05/2019

Trade name: Ultra Seal EF

(Contd. of page 1)

4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:

577-11-7	docusate sodium	5.7 mg/m ³
7664-41-7	ammonia, anhydrous	30 ppm
1336-21-6	ammonia	61 ppm
64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	140 mg/m ³

· PAC-2:

577-11-7	docusate sodium	63 mg/m ³
7664-41-7	ammonia, anhydrous	160 ppm
1336-21-6	ammonia	330 ppm
64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	1,500 mg/m ³

· PAC-3:

577-11-7	docusate sodium	380 mg/m ³
7664-41-7	ammonia, anhydrous	1,100 ppm
1336-21-6	ammonia	2,300 ppm
64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	8,900 mg/m ³

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 03/05/2019

Trade name: Ultra Seal EF

(Contd. of page 2)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Eye protection:** Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
- **Form:** Liquid
- **Color:** According to product specification
- **Odor:** Characteristic
- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** 100 °C (212 °F)

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 03/05/2019

Trade name: Ultra Seal EF

(Contd. of page 3)

· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
· Density at 20 °C (68 °F):	1.029 g/cm ³ (8.58701 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	73.7 %
Solids content:	24.5 %
· Other information	No further relevant information available.
· Volatile Organic Compounds:	Contains less than 100 g/L.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect known.
- **on the eye:** No irritating effect known.
- **Sensitization:** No sensitizing effects known.

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 03/05/2019

Trade name: Ultra Seal EF

(Contd. of page 4)

· **Additional toxicological information:**

*The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.*

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** *No further relevant information available.*
 · **Persistence and degradability:** *No further relevant information available.*

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** *No further relevant information available.*
 · **Mobility in soil:** *No further relevant information available.*

· **Additional ecological information:**

· **General notes:** *Water hazard class 1 (Self-assessment): slightly hazardous for water*
 · **Results of PBT and vPvB assessment**
 · **PBT:** *Not applicable.*
 · **vPvB:** *Not applicable.*
 · **Other adverse effects:** *No further relevant information available.*

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Smaller quantities can be disposed of with household waste.

It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.

· **Uncleaned packagings:**

· **Recommendation:** *Disposal must be made according to Federal, State, and Local regulations.*
 · **Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

14 Transport information

· **UN-Number**

· **DOT, ADR, ADN, IMDG, IATA**

Not Regulated

· **UN proper shipping name**

· **DOT, ADR, ADN, IMDG, IATA**

Not Regulated

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 03/05/2019

Trade name: Ultra Seal EF

(Contd. of page 5)

· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Not Regulated
· Packing group	
· DOT, ADR, IMDG, IATA	Not Regulated
· Environmental hazards:	
· Marine pollutant:	No
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· U.S. Domestic Ground Shipments:	Same as listed for Standard Shipments above.
· U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments:	Same as listed for Standard Shipments above.
· Emergency Response Guide (ERG) Number:	Not determine
· UN "Model Regulation":	Not Regulated

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

7664-41-7	ammonia, anhydrous
-----------	--------------------

- **Section 313 (Specific toxic chemical listings):**

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

7664-41-7	ammonia, anhydrous	<0.1%
1336-21-6	ammonia	<0.1%

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65**

- **Chemicals known to the State of California (Prop. 65) to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenicity categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/05/2019

Reviewed on 03/05/2019

Trade name: Ultra Seal EF

(Contd. of page 6)

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **National regulations:**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environmental, Health & Safety Department

· **Contact:** Environmental, Health & Safety Manager

· **Date of preparation / last revision** 03/05/2019 / 25

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit



SAFETY DATA SHEET

1. Identification

Material name: AKKRO-7T

Material: TL6201555

Recommended use and restriction on use

Recommended use: Additive

Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY

19218 REDWOOD ROAD

CLEVELAND OH 44110

US

Contact person:

EH&S Department

Telephone:

216-531-9222

Emergency telephone number:

1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Not classified

Label Elements

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

Precautionary Statements Not applicable

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Ammonium hydroxide	1336-21-6	0.1 - <1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. First-aid measures**

Ingestion:	Rinse mouth thoroughly.
Inhalation:	Move to fresh air.
Skin Contact:	Remove contaminated clothing and wash the skin thoroughly with soap and water after work.
Eye contact:	Rinse immediately with plenty of water.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Get medical attention if symptoms occur.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

**Methods and material for containment and cleaning up:**

Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures:

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions:

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

7. Handling and storage**Precautions for safe handling:**

Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities:

Store away from incompatible materials. Store in original tightly closed container.

8. Exposure controls/personal protection**Control Parameters****Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Ammonium hydroxide	STEL	35 ppm	US. ACGIH Threshold Limit Values (2011)
	TWA	25 ppm	US. ACGIH Threshold Limit Values (2011)
	PEL	50 ppm 35 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

None of the components have assigned exposure limits.

Chemical name	Type	Exposure Limit Values	Source
Ammonium hydroxide	STEL	35 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ammonium hydroxide	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	35 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Formaldehyde	TWA	0.3 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	CEILING	1 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)



Formaldehyde	STEL	1 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	CEV	1.5 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Formaldehyde	CEILING	2 ppm 3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)

Appropriate Engineering Controls Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: Wear goggles/face shield.

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: No data available.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance

Physical state: liquid

Form: liquid

Color: Off-white

Odor: Mild

Odor threshold: No data available.

pH: 9 - 10

Melting point/freezing point: No data available.

Initial boiling point and boiling range: No data available.

Flash Point: No data available.

Evaporation rate: Slower than Ether

Flammability (solid, gas): No

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): No data available.

Flammability limit - lower (%): No data available.

Explosive limit - upper (%): No data available.

Explosive limit - lower (%): No data available.



Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.1
Solubility(ies)	
Solubility in water:	Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	Strong acids. Strong bases.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Moderately irritating to skin with prolonged exposure.
Eye contact:	Eye contact is possible and should be avoided.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.



Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Ammonium hydroxide LD 50 (Rat): 350 mg/kg

Dermal

Product: Not classified for acute toxicity based on available data.

Inhalation

Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified



Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.



Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated



15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Formaldehyde	Acute toxicity Skin irritation Skin sensitization Flammability respiratory tract irritation Respiratory sensitization Cancer Eye irritation

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Ammonium hydroxide	1000 lbs.
Formaldehyde	100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Not classified
Not classified

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Formaldehyde	100 lbs.	500 lbs.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Ammonium hydroxide	1000 lbs.
Formaldehyde	100 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Formaldehyde	500lbs
Ammonium hydroxide	10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

<u>Chemical Identity</u>	<u>Reportable quantity</u>
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Formaldehyde lbs

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65



WARNING

Cancer - www.P65Warnings.ca.gov

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

Chemical Identity

Formaldehyde

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

VOC:

Regulatory VOC (less water and exempt solvent) : 10 g/l

VOC Method 310 : 0.00 %

**Inventory Status:**

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision

Revision Date:	11/07/2018
Version #:	3.0
Further Information:	No data available.



EUCLID CHEMICAL

Version: 3.0
Revision Date: 11/07/2018

Disclaimer:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.



SAFETY DATA SHEET

1. Identification

Material name: DIAMOND CLEAR 350 - 5 GAL PAIL
Material: 359DC 05

Recommended use and restriction on use

Recommended use: Coatings
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids Category 2

Health Hazards

Acute toxicity (Inhalation - vapor) Category 4
Acute toxicity (Inhalation - dust and mist) Category 4
Germ Cell Mutagenicity Category 1B
Carcinogenicity Category 1B
Toxic to reproduction Category 1B

Unknown toxicity - Health

Acute toxicity, oral 0.12 %
Acute toxicity, dermal 0.13 %
Acute toxicity, inhalation, vapor 97.33 %
Acute toxicity, inhalation, dust or mist 97.54 %

Environmental Hazards

Acute hazards to the aquatic environment Category 3
Chronic hazards to the aquatic environment Category 3

**Unknown toxicity - Environment**

Acute hazards to the aquatic environment	96.03 %
Chronic hazards to the aquatic environment	95.94 %

Label Elements**Hazard Symbol:****Signal Word:** Danger**Hazard Statement:** Highly flammable liquid and vapor.
Harmful if inhaled.
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.
Harmful to aquatic life with long lasting effects.**Precautionary Statements****Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.**Response:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Call a POISON CENTER/doctor if you feel unwell. In case of fire: Use... to extinguish.**Storage:** Store in a well-ventilated place. Keep cool. Store locked up.**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.**Hazard(s) not otherwise classified (HNOC):** Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.



3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
Aromatic petroleum distillates		64742-95-6	5 - <10%
1,2,4-Trimethylbenzene		95-63-6	1 - <2.5%
Diisodecyl phthalate		26761-40-0	0.3 - <1%
Cumene		98-82-8	0.1 - <1%
Xylene		1330-20-7	0.1 - <1%
Tert-Butyl Acetate		540-88-5	0.1 - <1%
Acetone		67-64-1	0.1 - <1%

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

Inhalation:	Move to fresh air.
Skin Contact:	Wash skin thoroughly with soap and water. Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.
Ingestion:	Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
Personal Protection for First-aid Responders:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Most important symptoms/effects, acute and delayed

Symptoms:	Respiratory tract irritation.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Symptoms may be delayed.
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5. Fire-fighting measures

General Fire Hazards:	Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.
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**Suitable (and unsuitable) extinguishing media**

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical: Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.

Accidental release measures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage**Handling**

Technical measures (e.g. Local and general ventilation): Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Safe handling advice: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Take precautionary measures against static discharges. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Contact avoidance measures:** No data available.**Hygiene measures:** Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.**Storage****Safe storage conditions:** Store locked up. Store in a well-ventilated place. Store in a cool place.**Safe packaging materials:** No data available.**8. Exposure controls/personal protection****Control Parameters****Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
1,2,4-Trimethylbenzene	REL	25 ppm 125 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	TWA	25 ppm 125 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	25 ppm 125 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	AN ESL	25 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
	ST ESL	140 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (02 2013)
	ST ESL	700 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (02 2013)
	AN ESL	125 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
	TWA PEL	25 ppm 125 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
Xylene	TWA	25 ppm	US. ACGIH Threshold Limit Values, as amended (2011)
	STEL	150 ppm 655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	REL	100 ppm 435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	STEL	150 ppm 655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	REL	100 ppm 435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	STEL	150 ppm 655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	REL	100 ppm 435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	STEL	150 ppm 655 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	100 ppm 435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	100 ppm 435 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
STEL	150 ppm 655 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)	
ST ESL	350 µg/m3	US. Texas. Effects Screening Levels (Texas	



			Commission on Environmental Quality), as amended (07 2011)
	ST ESL	80 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
	AN ESL	42 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
	AN ESL	180 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
	STEL	150 ppm 655 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	Ceiling	300 ppm	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	TWA PEL	100 ppm 435 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	TWA	100 ppm	US. ACGIH Threshold Limit Values, as amended (2011)
	STEL	150 ppm	US. ACGIH Threshold Limit Values, as amended (2011)
	PEL	100 ppm 435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Cumene	TWA	50 ppm	US. ACGIH Threshold Limit Values, as amended (2011)
	PEL	50 ppm 245 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Tert-Butyl Acetate	TWA	50 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)
	STEL	150 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)
	PEL	200 ppm 950 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Acetone	TWA	250 ppm	US. ACGIH Threshold Limit Values, as amended (03 2015)
	STEL	500 ppm	US. ACGIH Threshold Limit Values, as amended (03 2015)
	PEL	1,000 ppm 2,400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)

Chemical name	Type	Exposure Limit Values	Source
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Cumene	STEL	75 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	25 ppm	Canada. British Columbia OELs. (Occupational



			Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Cumene	TWA	50 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Cumene	TWA	50 ppm 246 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)

Chemical name	Type	Exposure Limit Values	Source
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Diisodecyl phthalate	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Xylene	TWA	100 ppm 434 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
	STEL	150 ppm 651 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Xylene	TWA	100 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	150 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Xylene	TWA	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
	STEL	150 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Xylene	STEL	150 ppm 651 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	100 ppm 434 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Cumene	STEL	75 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)



Cumene	TWA	50 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Cumene	TWA	50 ppm	246 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Tert-Butyl Acetate	TWA	200 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Tert-Butyl Acetate	TWA	200 ppm	950 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Tert-Butyl Acetate	TWA	50 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
	STEL	150 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Acetone	STEL	500 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	250 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Acetone	TWA	500 ppm	1,190 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	STEL	1,000 ppm	2,380 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Acetone	TWA	250 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)
	STEL	500 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)
Methanol	STEL	250 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	200 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Methanol	STEL	250 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
	TWA	200 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Methanol	STEL	250 ppm	328 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	200 ppm	262 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)



Tert-Butyl Alcohol	TWA	100 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Tert-Butyl Alcohol	TWA	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Tert-Butyl Alcohol	TWA	100 ppm 303 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Xylene (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in urine)	ACGIH BEI (03 2013)
Acetone (acetone: Sampling time: End of shift.)	25 mg/l (Urine)	ACGIH BEI (03 2015)

Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment**Eye/face protection:**

Wear safety glasses with side shields (or goggles).

Skin Protection**Hand Protection:**

Additional Information: Use suitable protective gloves if risk of skin contact.

Skin and Body Protection:

Wear suitable protective clothing.

Respiratory Protection:

In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures:

Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

9. Physical and chemical properties**Appearance****Physical state:**

liquid

Form:

liquid

Color:

Colorless

Odor:

Mild petroleum/solvent

Odor threshold:

No data available.

pH:

No data available.

Melting point/freezing point:

No data available.

Initial boiling point and boiling range:

> 35 °C > 95 °F

Flash Point:

17 °C 63 °F (Setaflash Closed Cup)



Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.05
Solubility(ies)	
Solubility in water:	Practically Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Heat, sparks, flames.
Incompatible Materials:	Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes mild skin irritation.
Eye contact:	Eye contact is possible and should be avoided.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics



Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral	
Product:	ATEmix: 157,283.97 mg/kg
Dermal	
Product:	ATEmix: 2,379.67 mg/kg
Inhalation	
Product:	ATEmix: 14.06 mg/l ATEmix : 1.77 mg/l

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Aromatic petroleum distillates	in vivo (Rabbit): Irritating
1,2,4-Trimethylbenzene	in vivo (Rabbit): Irritating
Cumene	in vivo (Rabbit): Not irritant
Xylene	in vivo (Rabbit): Moderate irritant
Tert-Butyl Acetate	in vivo (Rabbit): Not irritant , 24 h in vivo (Rabbit): Not irritant , 24 - 72 h in vivo (Rabbit): Not irritant , 48 - 72 h
Acetone	in vivo (Rabbit): Not irritant

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):



Aromatic petroleum distillates	Rabbit, 24 - 72 hrs: Not irritating
1,2,4-Trimethylbenzene	Rabbit, 30 min: Not irritating
Cumene	Rabbit, 24 hrs: Not irritating
Xylene	Rabbit, 24 hrs: Moderately irritating
Tert-Butyl Acetate	Rabbit, 24 hrs: Not irritating
Acetone	Irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Cumene Overall evaluation: Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

Cumene Reasonably Anticipated to be a Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro**

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s):

Cumene Inhalation - vapor: Category 3 with respiratory tract irritation.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.



Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

1,2,4-Trimethylbenzene	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 7.19 - 8.28 mg/l Mortality
Diisodecyl phthalate	LC 50 (Fathead minnow (Pimephales promelas), 96 h): > 0.47 mg/l Mortality
Cumene	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 6.04 - 6.61 mg/l Mortality
Xylene	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 13.41 mg/l Mortality
Tert-Butyl Acetate	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 296 - 362 mg/l Mortality
Acetone	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 5,490 - 7,030 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Diisodecyl phthalate	EC 50 (Opossum shrimp (Americamysis bahia), 96 h): > 0.08 mg/l Mortality
Cumene	LC 50 (Water flea (Daphnia magna), 48 h): 7.9 - 45.1 mg/l Mortality
Acetone	EC 50 (Water flea (Daphnia magna), 48 h): 10,294 - 17,704 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants



Product: No data available.

Persistence and Degradability

**Biodegradation
Product:** No data available.

**BOD/COD Ratio
Product:** No data available.

**Bioaccumulative potential
Bioconcentration Factor (BCF)
Product:** No data available.

**Partition Coefficient n-octanol / water (log Kow)
Product:** No data available.

Specified substance(s):

Cumene	Log Kow: 3.66
Xylene	Log Kow: 3.12 - 3.20
Tert-Butyl Acetate	Log Kow: 1.76
Acetone	Log Kow: -0.24

Mobility in soil: No data available.

Other adverse effects: Harmful to aquatic life with long lasting effects.

13. Disposal considerations

Disposal methods: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

UN1866, RESIN SOLUTION, 3, PG II

CFR / DOT:

UN1866, Resin solution, 3, PG II



IMDG:

UN1866, RESIN SOLUTION, 3, PG II

Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Dimethyl carbonate	100 lbs.
Xylene	100 lbs.
Cumene	5000 lbs.
Tert-Butyl Acetate	5000 lbs.
Acetone	5000 lbs.
Methanol	5000 lbs.
Tert-Butyl Alcohol	100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Fire Hazard
- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard
- Flammable (gases, aerosols, liquids, or solids)
- Acute toxicity (any route or exposure)
- Germ Cell Mutagenicity
- Carcinogenicity
- Reproductive toxicity
- Hazards Not Otherwise Classified (HNOC)

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

<u>Chemical Identity</u>	<u>Reportable quantity</u>
--------------------------	----------------------------



Xylene

Reportable quantity: lbs.

US State Regulations

US. California Proposition 65



WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Dimethyl carbonate
1,2,4-Trimethylbenzene

US. Massachusetts RTK - Substance List

Chemical Identity

Dimethyl carbonate
1,2,4-Trimethylbenzene

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Dimethyl carbonate
1,2,4-Trimethylbenzene

US. Rhode Island RTK

Chemical Identity

1,2,4-Trimethylbenzene

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

VOC:

Regulatory VOC (less water and
exempt solvent) : 320 g/l

VOC Method 310 : 7.11 %

**Inventory Status:**

Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Australia AICS:	All components in this product are listed on or exempt from the Inventory.
Ontario Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	All components in this product are listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	All components in this product are listed on or exempt from the Inventory.
Mexico INSQ:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	All components in this product are



listed on or exempt from the Inventory.

Philippines PICCS:

All components in this product are listed on or exempt from the Inventory.

Taiwan Chemical Substance Inventory:

One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision

Revision Date: 10/09/2020

Version #: 3.0

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.



SAFETY DATA SHEET

1. Identification

Material name: EVERCLEAR - 55 GAL DRUM
Material: 359D 55

Recommended use and restriction on use

Recommended use: Coatings
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids Category 3

Health Hazards

Acute toxicity (Inhalation - vapor) Category 4
Acute toxicity (Inhalation - dust and mist) Category 4
Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Germ Cell Mutagenicity Category 1B
Carcinogenicity Category 1B
Specific Target Organ Toxicity - Single Exposure Category 3¹
Aspiration Hazard Category 1

Target Organs

1. Respiratory tract irritation.

Unknown toxicity - Health

Acute toxicity, oral 2 %
Acute toxicity, dermal 8 %
Acute toxicity, inhalation, vapor 74.49 %
Acute toxicity, inhalation, dust or mist 74.5 %

Environmental Hazards



Acute hazards to the aquatic environment	Category 2
Chronic hazards to the aquatic environment	Category 2

Unknown toxicity - Environment

Acute hazards to the aquatic environment	71.24 %
Chronic hazards to the aquatic environment	67.26 %

Label Elements**Hazard Symbol:****Signal Word:** Danger**Hazard Statement:** Flammable liquid and vapor.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause genetic defects.
May cause cancer.
May cause respiratory irritation.
May be fatal if swallowed and enters airways.
Toxic to aquatic life with long lasting effects.**Precautionary Statements****Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting/...] equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.**Response:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If skin irritation occurs: Get medical advice/attention. IF SWALLOWED:



Immediately call a POISON CENTER/doctor/... Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing. In case of fire: Use... to extinguish. Collect spillage.

Storage: Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Aromatic petroleum distillates	64742-95-6	20 - <50%
1,2,4-Trimethylbenzene	95-63-6	25 - <50%
1,3,5-Trimethylbenzene	108-67-8	5 - <10%
Xylene	1330-20-7	1 - <5%
1,2,3-Trimethylbenzene	526-73-8	1 - <5%
Cumene	98-82-8	1 - <2.5%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

Inhalation: Move to fresh air.

Skin Contact: Take off immediately all contaminated clothing. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Ingestion: Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Personal Protection for First-aid Responders: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Most important symptoms/effects, acute and delayed



Symptoms: Respiratory tract irritation. Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical: Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Accidental release measures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

**7. Handling and storage****Handling**

Technical measures (e.g. Local and general ventilation): Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Safe handling advice: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Take precautionary measures against static discharges. Avoid contact with skin.

Contact avoidance measures: No data available.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. When using do not smoke. Wash contaminated clothing before reuse. Avoid contact with skin.

Storage

Safe storage conditions: Store locked up. Store in a well-ventilated place. Store in a cool place.

Safe packaging materials: No data available.

8. Exposure controls/personal protection**Control Parameters****Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
1,2,4-Trimethylbenzene	REL	25 ppm 125 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	25 ppm 125 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	25 ppm 125 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	AN ESL	25 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	ST ESL	140 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	ST ESL	700 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	125 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	TWA PEL	25 ppm 125 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
	TWA	25 ppm	US. ACGIH Threshold Limit Values (2011)
1,3,5-Trimethylbenzene	TWA	25 ppm	US. ACGIH Threshold Limit Values (2011)



Xylene	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	STEL	150 ppm	655 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm	435 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	150 ppm	655 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL		350 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	ST ESL		80 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	AN ESL		42 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	AN ESL		180 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	STEL	150 ppm	655 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
	Ceiling	300 ppm		US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
	TWA PEL	100 ppm	435 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
	TWA	100 ppm		US. ACGIH Threshold Limit Values (2011)
	STEL	150 ppm		US. ACGIH Threshold Limit Values (2011)
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
1,2,3-Trimethylbenzene	TWA	25 ppm		US. ACGIH Threshold Limit Values (2011)
Cumene	TWA	50 ppm		US. ACGIH Threshold Limit Values (2011)
	PEL	50 ppm	245 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)



Chemical name	Type	Exposure Limit Values	Source
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
1,3,5-Trimethylbenzene	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,3,5-Trimethylbenzene	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
1,3,5-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Xylene	TWA	100 ppm 434 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
	STEL	150 ppm 651 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Xylene	TWA	100 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	150 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Xylene	TWA	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	150 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Xylene	STEL	150 ppm 651 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	TWA	100 ppm 434 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
1,2,3-Trimethylbenzene	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2,3-Trimethylbenzene	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
1,2,3-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Cumene	STEL	75 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Cumene	TWA	50 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Cumene	TWA	50 ppm 246 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)



Chemical name	Type	Exposure Limit Values	Source
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
1,3,5-Trimethylbenzene	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,3,5-Trimethylbenzene	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
1,3,5-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Xylene	TWA	100 ppm 434 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
	STEL	150 ppm 651 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Xylene	TWA	100 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	150 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Xylene	TWA	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	150 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Xylene	STEL	150 ppm 651 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	TWA	100 ppm 434 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
1,2,3-Trimethylbenzene	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2,3-Trimethylbenzene	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
1,2,3-Trimethylbenzene	TWA	25 ppm 123 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Cumene	STEL	75 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)



Cumene	TWA	50 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Cumene	TWA	50 ppm 246 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Toluene	TWA	20 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Toluene	TWA	20 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Toluene	TWA	50 ppm 188 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Benzene	STEL	2.5 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	0.5 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Benzene	TWA	0.5 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	STEL	2.5 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Benzene	TWA	1 ppm 3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	STEL	5 ppm 15.5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Xylene (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in urine)	ACGIH BEI (03 2013)

Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof ventilation equipment.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific



information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. When using do not smoke. Wash contaminated clothing before reuse. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Mild petroleum/solvent
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	42 °C 108 °F(Pensky-Martens Closed Cup)
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	7 %(V)
Flammability limit - lower (%):	1 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	0.93
Solubility(ies)	
Solubility in water:	Practically Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	< 20.5 mm ² /s (40 °C 104 °F)

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.



Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Heat, sparks, flames.
Incompatible Materials:	Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes skin irritation.
Eye contact:	Causes serious eye irritation.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	ATEmix: 112,017.92 mg/kg
Dermal Product:	ATEmix: 55,022.01 mg/kg
Inhalation Product:	ATEmix: 11.01 mg/l ATEmix : 1.5 mg/l

Repeated dose toxicity Product:	No data available.
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Skin Corrosion/Irritation Product:	No data available.
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**Specified substance(s):**

Aromatic petroleum distillates	in vivo (Rabbit): Irritating
1,2,4-Trimethylbenzene	in vivo (Rabbit): Irritating
1,3,5-Trimethylbenzene	in vivo (Rabbit): Irritating
Xylene	in vivo (Rabbit): Moderate irritant
Cumene	in vivo (Rabbit): Not irritant

Serious Eye Damage/Eye Irritation**Product:** No data available.**Specified substance(s):**

Aromatic petroleum distillates	Rabbit, 24 - 72 hrs: Not irritating
1,2,4-Trimethylbenzene	Rabbit, 30 min: Not irritating
1,3,5-Trimethylbenzene	Rabbit, 30 min: Not irritating
Xylene	Rabbit, 24 hrs: Moderately irritating
Cumene	Rabbit, 24 hrs: Not irritating

Respiratory or Skin Sensitization**Product:** No data available.**Carcinogenicity****Product:** May cause cancer.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Cumene	Overall evaluation: Possibly carcinogenic to humans.
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US. National Toxicology Program (NTP) Report on Carcinogens:

Cumene	Reasonably Anticipated to be a Human Carcinogen.
--------	--

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

**Germ Cell Mutagenicity**

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s):
Cumene Inhalation - vapor: Category 3 with respiratory tract irritation.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Target Organs

Specific Target Organ Toxicity - Single Exposure: Respiratory tract irritation.

Aspiration Hazard

Product: May be fatal if swallowed and enters airways.

Other effects: No data available.

12. Ecological information**Ecotoxicity:****Acute hazards to the aquatic environment:****Fish**

Product: No data available.

Specified substance(s):

1,2,4-Trimethylbenzene LC 50 (Fathead minnow (Pimephales promelas), 96 h): 7.19 - 8.28 mg/l Mortality

Xylene LC 50 (Fathead minnow (Pimephales promelas), 96 h): 13.41 mg/l Mortality

Cumene LC 50 (Fathead minnow (Pimephales promelas), 96 h): 6.04 - 6.61 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):



Cumene LC 50 (Water flea (Daphnia magna), 48 h): 7.9 - 45.1 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Xylene Log Kow: 3.12 - 3.20

Cumene Log Kow: 3.66

Mobility in soil: No data available.

Other adverse effects: Toxic to aquatic life with long lasting effects.

13. Disposal considerations

Disposal methods: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.



14. Transport information

TDG:

UN1866, RESIN SOLUTION, 3, PG III

CFR / DOT:

UN1866, Resin solution, 3, PG III

IMDG:

UN1866, RESIN SOLUTION, 3, PG III

Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Chemical Identity

Benzene

OSHA hazard(s)

Blood
respiratory tract irritation
Central nervous system
Flammability
Cancer
Skin
Aspiration
Eye

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity

Xylene
Cumene
Toluene
Benzene

Reportable quantity

100 lbs.
5000 lbs.
1000 lbs.
10 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard
Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard
Flammable (gases, aerosols, liquids, or solids)



Acute toxicity (any route or exposure)
Skin Corrosion or Irritation
Serious eye damage or eye irritation
Germ Cell Mutagenicity
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)
Aspiration Hazard
Hazards Not Otherwise Classified (HNOC)

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Xylene	100 lbs.
Cumene	5000 lbs.
Toluene	1000 lbs.
Benzene	10 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Aromatic petroleum distillates	10000 lbs
1,2,4-Trimethylbenzene	10000 lbs
1,3,5-Trimethylbenzene	10000 lbs
Xylene	10000 lbs
1,2,3-Trimethylbenzene	10000 lbs
Cumene	10000 lbs

SARA 313 (TRI Reporting)

<u>Chemical Identity</u>
1,2,4-Trimethylbenzene
Xylene
Cumene

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Xylene	Reportable quantity: lbs.

US State Regulations

US. California Proposition 65



WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov



US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
Xylene
1,2,3-Trimethylbenzene
Cumene

US. Massachusetts RTK - Substance List

Chemical Identity

1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
Xylene
1,2,3-Trimethylbenzene
Cumene
Benzene

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
Xylene
1,2,3-Trimethylbenzene
Cumene

US. Rhode Island RTK

Chemical Identity

1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
Xylene
1,2,3-Trimethylbenzene
Cumene

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

VOC:

Regulatory VOC (less water and
exempt solvent) : 681 g/l

VOC Method 310 : 73.23 %

**Inventory Status:**

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision

Revision Date:	08/15/2019
Version #:	6.0
Further Information:	No data available.



Disclaimer:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

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SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: GASOLINE, UNLEADED AUTOMOTIVE
Product Description: Hydrocarbons and Additives
Product Code: 123455-20
Intended Use: Fuel, Gasoline

COMPANY IDENTIFICATION

Supplier: EXXON MOBIL CORPORATION
22777 Springwoods Village Parkway
Spring, TX 77389 USA

24 Hour Health Emergency 609-737-4411
Transportation Emergency Phone 800-424-9300 or 703-527-3887 CHEMTREC
Product Technical Information 800-662-4525
MSDS Internet Address www.exxon.com, www.mobil.com

SECTION 2 HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

CLASSIFICATION:

Flammable liquid: Category 1.
Skin irritation: Category 2. Germ Cell Mutagen: Category 1B. Carcinogen: Category 1B. Specific target organ toxicant (central nervous system): Category 3. Aspiration toxicant: Category 1.

LABEL:

Pictogram:



Signal Word: Danger

Hazard Statements:

H224: Extremely flammable liquid and vapor. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H336: May cause drowsiness or dizziness. H340: May cause genetic defects. H350:

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May cause cancer.

Precautionary Statements:

P101: If medical advice is needed, have product container or label at hand. P102: Keep out of reach of children. P103: Read label before use. P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat/sparks/open flames/hot surfaces. -- No smoking. P233: Keep container tightly closed. P240: Ground / bond container and receiving equipment. P241: Use explosion-proof electrical, ventilating, and lighting equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P261: Avoid breathing mist / vapours. P264: Wash skin thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P308 + P313: IF exposed or concerned: Get medical advice/ attention. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P331: Do NOT induce vomiting. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P370 + P378: In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish. P391: Collect spillage. P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up. P501: Dispose of contents and container in accordance with local regulations.

Contains: GASOLINE

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS

Material can accumulate static charges which may cause an ignition. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited.

HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. May be irritating to the eyes, nose, throat, and lungs. Exposure to benzene is associated with cancer (acute myeloid leukemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders (see Section 11).

ENVIRONMENTAL HAZARDS

Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:	Health: 1	Flammability: 3	Reactivity: 0
HMIS Hazard ID:	Health: 1*	Flammability: 3	Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

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Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
ETHYL ALCOHOL	64-17-5	< 11%	H225, H319(2A)
GASOLINE	86290-81-5	89 - 100%	H224, H304, H336, H340(1B), H350(1B), H315, H401, H411

Hazardous Constituent(s) Contained in Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
BENZENE	71-43-2	<= 1.65%	H225, H303, H304, H340(1B), H350(1A), H315, H319(2A), H372, H401
ETHYL BENZENE	100-41-4	1 - 5%	H225, H332, H373, H401, H412
N-HEXANE	110-54-3	1 - 5%	H225, H304, H336, H361(F), H315, H373, H401, H411
NAPHTHALENE	91-20-3	<1%	H302, H351, H400(M factor 1), H410(M factor 1)
PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)	95-63-6	1 - 5%	H226, H332, H335, H315, H319(2A), H401, H411
TOLUENE	108-88-3	5 - 10%	H225, H304, H336, H315, H373, H401, H412
TRIMETHYL BENZENE	25551-13-7	1 - 5%	H226, H315
XYLENES	1330-20-7	5 - 10%	H226, H304, H312, H332, H335, H315, H320(2B), H373, H401

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

NOTE: The concentration of the components shown above may vary substantially. In certain countries, benzene content may be limited to lower levels. Oxygenates such as tertiary-amyl-methyl ether, ethanol, di-isopropyl ether, and ethyl-tertiary-butyl ether may be present. Because of volatility considerations, gasoline vapor may have concentrations of components very different from those of liquid gasoline. The major components of gasoline vapor are: butane, isobutane, pentane, and isopentane. The reportable component percentages, shown in the composition/information on ingredients section, are based on API's evaluation of a typical gasoline mixture. Oxygenates may be present up to the maximum permitted by European Standard EN228. Motor gasoline is considered a mixture by EPA under the Toxic Substances Control Act (TSCA). The refinery streams used to blend motor gasoline are all on the TSCA Chemical Substances Inventory.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use

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adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. This material, or a component, may be associated with cardiac sensitization following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop a leak. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Extremely Flammable. Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: <-40°C (-40°F) [ASTM D-56]

Flammable Limits (Approximate volume % in air): LEL: 1.4 UEL: 7.6

Autoignition Temperature: >250°C (482°F)

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SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H₂S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to aromatic hydrocarbons are recommended. Note: gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Water Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Do not confine in area of spill. Advise occupants and shipping in downwind areas of fire and explosion hazard and warn them to stay clear. Allow liquid to evaporate from the surface. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid all personal contact. Prevent exposure to ignition sources, for example use non-sparking tools and

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explosion-proof equipment. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Do not siphon by mouth. Use only with adequate ventilation. Do not use as a cleaning solvent or other non-motor fuel uses. For use as a motor fuel only. It is dangerous and/or unlawful to put fuel into unapproved containers. Do not fill container while it is in or on a vehicle. Static electricity may ignite vapors and cause fire. Place container on ground when filling and keep nozzle in contact with container. Do not use electronic devices (including but not limited to cellular phones, computers, calculators, pagers or other electronic devices, etc.) in or around any fueling operation or storage area unless the devices are certified intrinsically safe by an approved national testing agency and to the safety standards required by national and/or local laws and regulations. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

STORAGE

Ample fire water supply should be available. A fixed sprinkler/deluge system is recommended. The type of container used to store the material may affect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Outside or detached storage preferred. Keep away from incompatible materials. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit / Standard			NOTE	Source
BENZENE		OSHA Action level	0.5 ppm		N/A	OSHA Sp.Reg.
BENZENE		STEL	5 ppm		N/A	OSHA Sp.Reg.
BENZENE		TWA	1 ppm		N/A	OSHA Sp.Reg.
BENZENE		STEL	1 ppm		N/A	ExxonMobil
BENZENE		TWA	0.5 ppm		N/A	ExxonMobil
BENZENE		STEL	2.5 ppm		Skin	ACGIH
BENZENE		TWA	0.5 ppm		Skin	ACGIH
ETHYL ALCOHOL		TWA	1900 mg/m3	1000 ppm	N/A	OSHA Z1
ETHYL ALCOHOL		STEL	1000 ppm		N/A	ACGIH

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ETHYL BENZENE		TWA	435 mg/m ³	100 ppm	N/A	OSHA Z1
ETHYL BENZENE		TWA	20 ppm		N/A	ACGIH
GASOLINE		STEL	200 ppm		N/A	ExxonMobil
GASOLINE		TWA	100 ppm		N/A	ExxonMobil
GASOLINE		STEL	500 ppm		N/A	ACGIH
GASOLINE		TWA	300 ppm		N/A	ACGIH
N-HEXANE		TWA	1800 mg/m ³	500 ppm	N/A	OSHA Z1
N-HEXANE		TWA	50 ppm		Skin	ACGIH
NAPHTHALENE		TWA	50 mg/m ³	10 ppm	N/A	OSHA Z1
NAPHTHALENE		TWA	10 ppm		Skin	ACGIH
PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)		TWA	25 ppm		N/A	ACGIH
TOLUENE		Ceiling	300 ppm		N/A	OSHA Z2
TOLUENE		Maximum concentration	500 ppm		N/A	OSHA Z2
TOLUENE		TWA	200 ppm		N/A	OSHA Z2
TOLUENE		TWA	20 ppm		N/A	ACGIH
TRIMETHYL BENZENE		TWA	25 ppm		N/A	ACGIH
XYLENES		TWA	435 mg/m ³	100 ppm	N/A	OSHA Z1
XYLENES		STEL	150 ppm		N/A	ACGIH
XYLENES		TWA	100 ppm		N/A	ACGIH

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

Biological limits

Substance	Specimen	Sampling Time	Limit	Determinant	Source
BENZENE	Creatinine in urine	End of shift	500 ug/g	t,t-Muconic acid	ACGIH BELs (BEIs)
BENZENE	Creatinine in urine	End of shift	25 ug/g	S-Phenylmercapturic acid	ACGIH BELs (BEIs)
ETHYL BENZENE	Creatinine in urine	End of shift	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	ACGIH BELs (BEIs)
N-HEXANE	Urine	End of shift	0.5 mg/l	2,5-Hexanedione, without hydrolysis	ACGIH BELs (BEIs)
NAPHTHALENE	No Biological Specimen provided	End of shift	Not Assigned	1-Naphthol, with hydrolysis + 2-Naphthol, with hydrolysis	ACGIH BELs (BEIs)
TOLUENE	Blood	Prior to last shift of work wk	0.02 mg/l	Toluene	ACGIH BELs (BEIs)
TOLUENE	Creatinine in urine	End of shift	0.3 mg/g	o-Cresol, with hydrolysis	ACGIH BELs (BEIs)
TOLUENE	Urine	End of shift	0.03 mg/l	Toluene	ACGIH BELs (BEIs)
XYLENES	Creatinine in urine	End of shift	1.5 g/g	Methylhippuric acids	ACGIH BELs (BEIs)

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Use explosion-proof ventilation equipment to stay below exposure limits.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Half-face filter respirator

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES
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Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

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GENERAL INFORMATION

Physical State: Liquid
Color: Clear (May Be Dyed)
Odor: Petroleum/Solvent
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.74
Density (at 15 °C): 720 kg/m³ (6.01 lbs/gal, 0.72 kg/dm³) - 758 kg/m³ (6.33 lbs/gal, 0.76 kg/dm³)
Flammability (Solid, Gas): N/A
Flash Point [Method]: <-40°C (-40°F) [ASTM D-56]
Flammable Limits (Approximate volume % in air): LEL: 1.4 UEL: 7.6
Autoignition Temperature: >250°C (482°F)
Boiling Point / Range: > 20°C (68°F)
Decomposition Temperature: N/D
Vapor Density (Air = 1): 3 at 101 kPa
Vapor Pressure: > 26.6 kPa (200 mm Hg) at 20 °C
Evaporation Rate (n-butyl acetate = 1): > 10
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3
Solubility in Water: Negligible
Viscosity: <1 cSt (1 mm²/sec) at 40 °C
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A

SECTION 10	STABILITY AND REACTIVITY
-------------------	---------------------------------

REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Heat, sparks, flame, and build up of static electricity.

MATERIALS TO AVOID: Alkalies, Halogens, Strong Acids, Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11	TOXICOLOGICAL INFORMATION
-------------------	----------------------------------

INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: (Rat) 4 hour(s) LC50 > 5000 mg/m ³ (Vapor)	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 403

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Irritation: No end point data for material.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Acute Toxicity (Rat): LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401
Skin	
Acute Toxicity (Rabbit): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 402
Skin Corrosion/Irritation (Rabbit): Data available.	Irritating to the skin. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404
Eye	
Serious Eye Damage/Irritation (Rabbit): Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: Data available.	Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406
Aspiration: Data available.	May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: Data available.	Caused genetic effects in laboratory animals, but the relevance to humans is uncertain. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 475 476
Carcinogenicity: Data available.	Caused cancer in laboratory animals. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 451
Reproductive Toxicity: Data available.	Not expected to be a reproductive toxicant. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 416 421
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	May cause drowsiness or dizziness.
Repeated Exposure: Data available.	Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 410 412 453

TOXICITY FOR SUBSTANCES

NAME	ACUTE TOXICITY
ETHYL BENZENE	Inhalation Lethality: 4 hour(s) LC50 17.8 mg/l (Vapor) (Rat); Oral Lethality: LD50 3.5 g/kg (Rat)
NAPHTHALENE	Inhalation Lethality: 4 hour(s) LC50 > 0.4 mg/l (Max attainable vapor conc.) (Rat); Oral Lethality: LD50 533 mg/kg (Mouse)

OTHER INFORMATION

For the product itself:

Laboratory animal studies have shown that prolonged and repeated inhalation exposure to light hydrocarbon vapors in the same boiling range as this product can produce adverse kidney effects in male rats. However, these effects were

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not observed in similar studies with female rats, male and female mice, or in limited studies with other animal species. Additionally, in a number of human studies, there was no clinical evidence of such effects at normal occupational levels. In 1991, The U.S. EPA determined that the male rat kidney is not useful for assessing human risk.

Vapor concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects.

Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Exposure to this material, or one of its components, in situations where there is the potential for high levels, such as in confined spaces or with abuse, may result in abnormal heart rhythm (arrhythmia). High-level exposure to hydrocarbons (above occupational exposure limits) may initiate arrhythmia in a worker that is undergoing stress or is taking a heart-stimulating substance such as epinephrine, a nasal decongestant, or an asthma or cardiovascular drug.

Gasoline unleaded: Caused cancer in animal tests. Chronic inhalation studies resulted in liver tumors in female mice and kidney tumors in male rats. Neither result considered significant for human health risk assessment by the United States EPA and others. Did not cause mutations In Vitro or In Vivo. Negative in inhalation developmental studies and reproductive tox studies. Inhalation of high concentrations in animals resulted in reversible central nervous system depression, but no persistent toxic effect on the nervous system. Non-sensitizing in test animals. Caused nerve damage in humans from abusive use (sniffing).

Contains:

BENZENE: Caused cancer (acute myeloid leukemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders in human studies. Caused genetic effects and effects on the immune system in laboratory animal and some human studies. Caused toxicity to the fetus and cancer in laboratory animal studies.

ETHANOL: Prolonged or repeated exposure to high concentrations of ethanol vapor or overexposure by ingestion may produce adverse effects to brain, kidney, liver, and reproductive organs, birth defects in offspring, and developmental toxicity in offspring.

NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.

N-HEXANE: Prolonged and/or repeated exposures to n-Hexane can cause progressive and potentially irreversible damage to the peripheral nervous system (e.g. fingers, feet, arms, legs, etc.). Simultaneous exposure to Methyl Ethyl Ketone (MEK) or Methyl Isobutyl Ketone (MIBK) and n-Hexane can potentiate the risk of adverse effects from n-Hexane on the peripheral nervous system. n-Hexane has been shown to cause testicular damage at high doses in male rats. The relevance of this effect for humans is unknown.

TOLUENE : Concentrated, prolonged or deliberate inhalation may cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals (> 1500 ppm) have been reported to cause adverse fetal developmental effects.

TRIMETHYLBENZENE: Long-term inhalation exposure of trimethylbenzene caused effects to the blood in laboratory animals.

ETHYLBENZENE: Caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
BENZENE	71-43-2	1, 3, 6
ETHYL BENZENE	100-41-4	5
GASOLINE	86290-81-5	5
NAPHTHALENE	91-20-3	2, 5

--REGULATORY LISTS SEARCHED--

1 = NTP CARC
2 = NTP SUS

3 = IARC 1
4 = IARC 2A

5 = IARC 2B
6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

More volatile component -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

Less volatile component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Majority of components -- Expected to be inherently biodegradable

Atmospheric Oxidation:

More volatile component -- Expected to degrade rapidly in air

BIOACCUMULATION POTENTIAL

Majority of components -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: IGNITABILITY.

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TCLP (BENZENE)

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT)

Proper Shipping Name: GASOLINE

Hazard Class & Division: 3

ID Number: 1203

Packing Group: II

Marine Pollutant: Yes

ERG Number: 128

Label(s): 3

Transport Document Name: UN1203, GASOLINE, 3, PG II, MARINE POLLUTANT

LAND (TDG)

Proper Shipping Name: GASOLINE

Hazard Class & Division: 3

UN Number: 1203

Packing Group: II

Special Provisions: 17, 88, 98, 150

SEA (IMDG)

Proper Shipping Name: MOTOR SPIRIT or GASOLINE or PETROL

Hazard Class & Division: 3

EMS Number: F-E, S-E

UN Number: 1203

Packing Group: II

Marine Pollutant: Yes

Label(s): 3

Transport Document Name: UN1203, MOTOR SPIRIT or GASOLINE or PETROL, 3, PG II, (-40°C c.c.), MARINE POLLUTANT

AIR (IATA)

Proper Shipping Name: MOTOR SPIRIT or GASOLINE or PETROL

Hazard Class & Division: 3

UN Number: 1203

Packing Group: II

Label(s) / Mark(s): 3

Transport Document Name: UN1203, GASOLINE, 3, PG II

SECTION 15

REGULATORY INFORMATION

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OSHA HAZARD COMMUNICATION STANDARD: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: AICS, DSL, ENCS, KECI, PICCS, TSCA

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE GHS HAZARD CLASSES: Aspiration Hazard, Carcinogenicity, Flammable (gases, aerosols, liquids, or solids), Germ cell mutagenicity, Skin Corrosion or Irritation, Specific Target Organ toxicity (single or repeated exposure)

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value
BENZENE	71-43-2	<= 1.65%
ETHYL BENZENE	100-41-4	1 - 5%
N-HEXANE	110-54-3	1 - 5%
NAPHTHALENE	91-20-3	<1%
PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)	95-63-6	1 - 5%
TOLUENE	108-88-3	5 - 10%
XYLENES	1330-20-7	5 - 10%

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
BENZENE	71-43-2	1, 2, 4, 10, 11, 13, 15, 16, 17, 18, 19
ETHYL ALCOHOL	64-17-5	1, 4, 13, 16, 17, 18
ETHYL BENZENE	100-41-4	1, 4, 10, 13, 16, 17, 18, 19
GASOLINE	86290-81-5	1, 18
N-HEXANE	110-54-3	1, 4, 13, 16, 17, 18, 19
NAPHTHALENE	91-20-3	1, 4, 10, 17, 19
PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)	95-63-6	1, 13, 16, 17, 18, 19
TOLUENE	108-88-3	1, 4, 11, 13, 15, 16, 17, 18, 19
TRIMETHYL BENZENE	25551-13-7	1, 13, 16, 17, 18
XYLENES	1330-20-7	1, 4, 13, 15, 16, 17, 18, 19

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL

6 = TSCA 5a2

11 = CA P65 REPRO

16 = MN RTK

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2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov. Chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm are created by the combustion of this product.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights.

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

H224: Extremely flammable liquid and vapor; Flammable Liquid, Cat 1
 H225: Highly flammable liquid and vapor; Flammable Liquid, Cat 2
 H226: Flammable liquid and vapor; Flammable Liquid, Cat 3
 H302: Harmful if swallowed; Acute Tox Oral, Cat 4
 H303: May be harmful if swallowed; Acute Tox Oral, Cat 5
 H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1
 H312: Harmful in contact with skin; Acute Tox Dermal, Cat 4
 H315: Causes skin irritation; Skin Corr/Irritation, Cat 2
 H319(2A): Causes serious eye irritation; Serious Eye Damage/Irr, Cat 2A
 H320(2B): Causes eye irritation; Serious Eye Damage/Irr, Cat 2B
 H332: Harmful if inhaled; Acute Tox Inh, Cat 4
 H335: May cause respiratory irritation; Target Organ Single, Resp Irr
 H336: May cause drowsiness or dizziness; Target Organ Single, Narcotic
 H340(1B): May cause genetic defects; Germ Cell Mutagenicity, Cat 1B
 H350(1A): May cause cancer; Carcinogenicity, Cat 1A
 H350(1B): May cause cancer; Carcinogenicity, Cat 1B
 H351: Suspected of causing cancer; GHS Carcinogenicity, Cat 2
 H361(F): Suspected of damaging fertility; Repro Tox, Cat 2 (Fertility)
 H372: Causes damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 1
 H373: May cause damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 2
 H400: Very toxic to aquatic life; Acute Env Tox, Cat 1
 H401: Toxic to aquatic life; Acute Env Tox, Cat 2
 H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1
 H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2
 H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

GHS Precautionary Statements - Storage information was modified.
 Section 01: Company Contact Methods information was modified.
 Section 01: Company Mailing Address information was modified.
 Section 04: First Aid Notes information was modified.
 Section 08: Biological Exposure Limits (ACG BEL) Table information was modified.

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Section 10: Conditions to Avoid information was added.

Section 10: Conditions to Avoid information was deleted.

Section 11: Other Health Effects information was modified.

Section 12: information was modified.

Section 14: Special Provisions information was modified.

Section 15: SARA (311/312) REPORTABLE GHS HAZARD CLASSES information was added.

Section 15: SARA (311/312) REPORTABLE HAZARD CATEGORIES information was deleted.

Section 16: HCode Key information was modified.

Section 16: Standard phrases for California Proposition 65 information was modified.

THIS MSDS COVERS THE FOLLOWING MATERIALS: ESSO EXTRA MIDGRADE UNLEADED | ESSO MIDGRADE UNLEADED | ESSO PREMIUM UNLEADED | ESSO REGULAR UNLEADED | ESSO SUPER PREMIUM UNLEADED | EXXON MIDGRADE UNLEADED | EXXON PREMIUM UNLEADED | EXXON REGULAR UNLEADED | GASOLINE | INDOLENE GASOLINE | MIDGRADE UNLEADED | MOBIL EXTRA UNLEADED | MOBIL REGULAR UNLEADED | MOBIL SPECIAL UNLEADED | MOBIL SUPER UNLEADED | PREMIUM UNLEADED | REGULAR UNLEADED | UNLEADED GASOLINE

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PPEC: CF

DGN: 2000316XUS (1011203)

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SAFETY DATA SHEET

1. Identification

Product identifier

WOOD PRODUCTS (UF BONDED)

Product list

Medium Density Fiberboard (MDF) Paneling: - Mount Vernon®, StyleLine™, UltraStock MDF produced with UF resin Shelving

Engineered Boards: - Jubilee® RTP Beadboard Paneling, Clutter Cutter® Panels, InfiniCor® Industrial Panels

----- x----- x-----
 ----- x----- x-----
 ® is a Registered Trademark owned by or licensed to Georgia-Pacific Wood Products LLC
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Other means of identification

SDS number

GP-30

Recommended use

Building Materials - Decorative

Recommended restrictions

None known.

Manufacturer/Importer/Supplier/Distributor information

Company name

Georgia-Pacific Wood Products LLC

Address

133 Peachtree Street, NE
 Atlanta, GA 30303

Telephone

Technical Information 800.284.5347
 MSDS Request 404.652.5119

E-mail

Not available.

Emergency phone number

Chemtrec - Emergency 800.424.9300

2. Hazard(s) identification

Emergency overview

This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., grinding, sanding, cutting, pulverizing) that reduce its particle size. Those hazards are described below.

Physical hazards

Not classified.

Health hazards

Eye irritation	Category 2B
Sensitization, respiratory	Category 1
Sensitization, skin	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 1A
Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation

Environmental hazards

Not classified.

OSHA defined hazards

Combustible dust

Label elements



Signal word

Danger

Hazard statement

May cause an allergic skin reaction. Causes eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause cancer. Suspected of causing genetic defects. If small particles of wood dust are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. Prevent dust accumulation and airborne dispersion of dust to minimize flash fire and explosion hazard. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. If exposed or concerned: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.

Storage

Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
WOOD/WOOD DUST		Not Assigned	65 - 85
FORMALDEHYDE		50-00-0	0 - < 0.1
UREA, POYLMER WITH FORMALDEHYDE		9011-05-6	1 - 5
Other components below reportable levels			10 - 30

The specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments

Some lumber products may be sprayed with sap stain control coatings.

4. First-aid measures

Inhalation

Remove from area of exposure. If the affected person is not breathing, apply artificial respiration. If persistent irritation, severe coughing or breathing difficulty occurs, seek medical attention.

Skin contact

If irritation develops, wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

If wood or wood dust is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

Most important symptoms/effects, acute and delayed

Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause an allergic skin reaction. Dermatitis. Rash. May cause respiratory irritation. Difficulty in breathing.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂). Apply extinguishing media carefully to avoid creating airborne dust. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

Unsuitable extinguishing media

Heavy water (or jet) stream may cause dust to become airborne and create a flash fire hazard or an explosive atmosphere.

Specific hazards arising from the chemical

Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods

To avoid dust clouds, responders should use the extinguisher from as far away as possible and apply the extinguishing agent as gently as possible. The main considerations with hose stream operation are to avoid creating combustible dust clouds or introducing more air. In particular, the use of solid streams and direct dust pile hits can disperse dust into the air creating a potential flash fire hazard. The best way to apply water is in a medium to wide-pattern, as gently as possible. Responders should use a low nozzle pressure and loft the stream onto the burning material from as far away as the stream will reach.

General fire hazards

May form combustible dust concentrations in air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use only non-sparking tools. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Vacuum dust with dust ignition proof vacuum or wet sweep small wood pieces and dust; place in appropriate container for disposal. Gather larger pieces by an appropriate method. Reduce airborne dust by use of wet methods (e.g. water mist) and prevent scattering by moistening with water. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Dust can form an explosive mixture in air. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. If flash fire or explosion hazard is present, wear flame resistant clothing and face/head protection. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Use personal protective equipment as required. Ensure dust collection systems used for conveying combustible wood dusts are protected with and equipped with fire and explosion prevention and protection equipment. See NFPA 664 and NFPA 69 for further requirements, information and guidance.

Conditions for safe storage, including any incompatibilities

Store flat, supported and protected from direct contact with the ground. Store away from incompatible materials (see Section 10 of the SDS). Store in a cool dry place.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
FORMALDEHYDE (CAS 50-00-0)	STEL	2 ppm
	TWA	0.75 ppm

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
WOOD/WOOD DUST	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

ACGIH

Components	Type	Value	Form
WOOD/WOOD DUST	TWA	1 mg/m3	Inhalable fraction.

US. ACGIH Threshold Limit Values

Components	Type	Value
FORMALDEHYDE (CAS 50-00-0)	STEL	0.3 ppm
	TWA	0.1 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
FORMALDEHYDE (CAS 50-00-0)	Ceiling	0.1 ppm	
	TWA	0.016 ppm	
WOOD/WOOD DUST	TWA	1 mg/m3	Dust.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Georgia-Pacific Wood Products LLC voluntarily elects to adhere to exposure limits contained in OSHA's 1989 Air Contaminants Standard although certain limits were vacated in 1992. The present OSHA exposure limits governing wood dust is 15 mg/m3 (Total Dust) and 5 mg/m3 (Respirable Fraction).

Appropriate engineering controls

Due to the fire and explosive potential of dust when suspended in air, precautions should be taken when material is used in any operation which may generate dust. Local exhaust, general dilution ventilation in enclosed areas, and explosion proof equipment is recommended. Use wet methods, if appropriate, to reduce airborne dust concentrations.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Safety glasses or goggles are recommended when using this product. Ensure compliance with OSHA's PPE standard (29 CFR 1910.132 and .133) for eye and face protection.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Impervious protective clothing and gloves recommended to prevent drying or irritation of skin. Ensure compliance with OSHA's PPE standards (29 CFR 1910.132 (general) and 138 (hand protection)). Safety shower/eye wash fountain is recommended in the workplace area (29 CFR 1910.151 (c)).

Respiratory protection

A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance	Rigid boards or panels
Physical state	Solid.
Form	Solid wood
Color	Various
Odor	Not available.
Odor threshold	Not available.
pH	Not applicable
Melting point/freezing point	Not applicable
Initial boiling point and boiling range	Not available.
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	40 g/cm ³ for wood dust (Note: The LEL is equivalent to the Minimum Explosive Concentration (MEC) for the combustible dust. The MEC will vary with particle size of the wood dust. Recommend MEC testing for specific wood dust particle sizes generated or handled.)
Flammability limit - upper (%)	Not available
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not applicable
Auto-ignition temperature	399.92 - 500 °F (204.4 - 260 °C) for wood
Decomposition temperature	Not available
Viscosity	Not available.
Other information	
Bulk density	Not applicable
Flash point class	Combustible
Specific gravity	Variable

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Dust accumulation, dispersion of dust in air, high temperatures, open flame, sparks, or other sources of ignition.
Incompatible materials	Strong acids, alkalies, oxidizing agents and drying oils.
Hazardous decomposition products	Thermal decomposition may emit irritating fumes or gases of carbon monoxide, carbon dioxide, aldehydes, or organic acids.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes eye irritation.
Ingestion	Not applicable under normal conditions of use. May result in obstruction or temporary irritation of the digestive tract.

Symptoms related to the physical, chemical and toxicological characteristics Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Dusts may irritate the respiratory tract, skin and eyes. Difficulty in breathing. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
FORMALDEHYDE (CAS 50-00-0)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	270 mg/kg

Components	Species	Test Results
Inhalation		
<i>Gas</i>		
LC50	Rat	480 ppm, 4 Hours
Oral		
LD50	Rat	640 - 800 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Causes eye irritation.

Respiratory or skin sensitization

ACGIH sensitization

FORMALDEHYDE (CAS 50-00-0)

Dermal sensitization
Respiratory sensitization

Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Suspected of causing genetic defects.

Carcinogenicity

Wood dust generated from sawing, sanding or machining this product may cause nasal dryness, irritation, coughing and sinusitis. The International Agency for Research on Cancer (IARC), and National Toxicology Program (NTP) classifies wood dust as a carcinogen. This classification is based on the increased occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation noted insufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon, or rectum with exposure to wood dust.

The weight of the scientific evidence surrounding the potential association between formaldehyde and cancer risk for both upper respiratory cancer as well as leukemia is conflicting even when significant and prolonged exposure to inhaled formaldehyde are involved.

IARC and NTP classify formaldehyde as a carcinogen due to cancers of the upper respiratory system and leukemia. OSHA regulates formaldehyde as a potential carcinogen for exposures at or exceeding 0.5 ppm.

IARC Monographs. Overall Evaluation of Carcinogenicity

FORMALDEHYDE (CAS 50-00-0)

1 Carcinogenic to humans.

WOOD/WOOD DUST (CAS Not Assigned)

1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

FORMALDEHYDE (CAS 50-00-0)

Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

FORMALDEHYDE (CAS 50-00-0)

Known To Be Human Carcinogen.

WOOD/WOOD DUST (CAS Not Assigned)

Known To Be Human Carcinogen.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results
WOOD PRODUCTS (UF BONDED)		
Aquatic		
Crustacea	EC50 Daphnia	2000 mg/L, 48 Hours
Fish	LC50 Fish	24100 mg/L, 96 Hours

Components	Species	Test Results
FORMALDEHYDE (CAS 50-00-0)		
Aquatic		
Crustacea	EC50 Water flea (Daphnia pulex)	5.8 mg/l, 48 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

FORMALDEHYDE 0.35

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Empty packaging/container can be disposed in accordance with all applicable regulations.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations

Wood and wood products are considered manufactured articles and are exempt under OSHA's Hazard Communication Standard 29 CFR 1910.1200. Wood dust, a by-product generated from sawing, sanding or machining wood and wood products, is considered hazardous and is regulated under the Hazard Communication Standard 29 CFR 1910.1200.

HUD. The Department of Housing and Urban Development (HUD) regulation 24 CFR 3280 provides for third-party certification of particleboard and hardwood plywood manufactured with urea-formaldehyde resin for formaldehyde emissions. In all cases, certification is made in accordance with ASTM E1333-96, Large Scale Test Method for Determining Formaldehyde Emissions from Wood Products. Georgia Pacific Wood Products, LLC does not manufacture particleboard or hardwood plywood bonded with urea formaldehyde. Urea formaldehyde bonded thin MDF paneling manufactured by Georgia Pacific Wood Products, LLC is not covered in the HUD regulation 24 CFR 3280. It meets the formaldehyde emission requirements of ANSI A208.2-2002, Medium Density Fiberboard (MDF) for Interior Applications, with a voluntary certification level of 0.2 ppm at a loading rate of 0.08 square foot/cubic foot and is voluntarily certified to meet the HUD particleboard emission limit of 0.3 ppm at a loading rate of 0.13 square feet/cubic foot.

California Air Resources Board (CARB). The CARB Air Toxic Control Measures regulation CCR 93120.2(a) provides for third-party certification and compliance with requirements to reduce allowable formaldehyde emissions from composite wood products. Phase 2 regulations require an emission standard of 0.11 ppm for Medium Density Fiberboard (MDF) and 0.13 ppm for thin MDF. Georgia-Pacific medium density fiberboard products are certified to, and comply with, CARB Phase 2 formaldehyde emission levels.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

FORMALDEHYDE (CAS 50-00-0) Listed.

SARA 304 Emergency release notification

FORMALDEHYDE (CAS 50-00-0) 100 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

FORMALDEHYDE (CAS 50-00-0)

- Cancer
- Skin sensitization
- Respiratory sensitization
- Eye irritation
- Skin irritation
- respiratory tract irritation
- Acute toxicity
- Flammability

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
FORMALDEHYDE	50-00-0	100	500		

SARA 311/312 Hazardous chemical

Classified hazard categories

- Combustible dust
- Serious eye damage or eye irritation
- Respiratory or skin sensitization
- Germ cell mutagenicity
- Carcinogenicity
- Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

FORMALDEHYDE (CAS 50-00-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

FORMALDEHYDE (CAS 50-00-0)

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations**California Proposition 65**

WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust, or use a dust mask or other safeguards for personal protection. For more information go to: www.P65Warnings.ca.gov/wood

California Proposition 65 - CRT: Listed date/Carcinogenic substance

FORMALDEHYDE (CAS 50-00-0) Listed: January 1, 1988

WOOD/WOOD DUST (CAS Not Assigned) Listed: December 18, 2009

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

FORMALDEHYDE (CAS 50-00-0)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	May-21-2015
Revision date	May-31-2018
Version #	05
Further information	Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.
HMIS® ratings	Health: 2* Flammability: 1 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 1 Instability: 0
Disclaimer	<p>This SDS is intended to quickly provide useful information to the user(s) of this material or product. It is not intended to serve as a comprehensive discussion of all possible risks or hazards, and it assumes a reasonable use of the product. The information contained in this SDS is believed to be accurate as of the date of preparation of this SDS and has been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. The user or handler (or their employer) should consider the specific conditions in which this material will be used, handled, or stored and determine what specific safety or other precautions are required. Employers should ensure that their employees, agents, contractors, and customers who will use the product receive adequate warnings and safe handling procedures, including a current SDS. Product users or handlers (or their employer) who are unsure of what specific precautions are required should consult their employer, product supplier, or safety or health professionals before handling or working with this product. Please notify us immediately if you believe this SDS or other safety and health information about this product is inaccurate or incomplete.</p>
Revision information	Regulatory information: California Proposition 65 Regulatory information: US federal regulations

WOOD PRODUCTS (UF BONDED)

Hazard statement

May cause an allergic skin reaction. Causes eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause cancer. Suspected of causing genetic defects. If small particles of wood dust are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. Prevent dust accumulation and airborne dispersion of dust to minimize flash fire and explosion hazard. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. If exposed or concerned: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.

Storage

Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.



Danger

Wood and wood products are considered manufactured articles and are exempt under OSHA's Hazard Communication Standard 29 CFR 1910.1200. Wood dust, a by-product generated from sawing, sanding or machining wood and wood products, is considered hazardous and is regulated under the Hazard Communication Standard 29 CFR 1910.1200.

HUD. The Department of Housing and Urban Development (HUD) regulation 24 CFR 3280 provides for third-party certification of particleboard and hardwood plywood manufactured with urea-formaldehyde resin for formaldehyde emissions. In all cases, certification is made in accordance with ASTM E1333-96, Large Scale Test Method for Determining Formaldehyde Emissions from Wood Products. Georgia Pacific Wood Products, LLC does not manufacture particleboard or hardwood plywood bonded with urea formaldehyde. Urea formaldehyde bonded thin MDF paneling manufactured by Georgia Pacific Wood Products, LLC is not covered in the HUD regulation 24 CFR 3280. It meets the formaldehyde emission requirements of ANSI A208.2-2002, Medium Density Fiberboard (MDF) for Interior Applications, with a voluntary certification level of 0.2 ppm at a loading rate of 0.08 square foot/cubic foot and is voluntarily certified to meet the HUD particleboard emission limit of 0.3 ppm at a loading rate of 0.13 square feet/cubic foot.

California Air Resources Board (CARB). The CARB Air Toxic Control Measures regulation CCR 93120.2(a) provides for third-party certification and compliance with requirements to reduce allowable formaldehyde emissions from composite wood products. Phase 2 regulations require an emission standard of 0.11 ppm for Medium Density Fiberboard (MDF) and 0.13 ppm for thin MDF. Georgia-Pacific medium density fiberboard products are certified to, and comply with, CARB Phase 2 formaldehyde emission levels.

California Proposition 65



WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust, or use a dust mask or other safeguards for personal protection. For more information go to: www.P65Warnings.ca.gov/wood

Product list:

Medium Density Fiberboard (MDF) Paneling: - Mount Vernon®, StyleLine™, UltraStock MDF produced with UF resin Shelving

Engineered Boards: - Jubilee® RTP Beadboard Paneling, Clutter Cutter® Panels, InfiniCor® Industrial Panels



Georgia-Pacific

Georgia-Pacific Wood Products LLC
133 Peachtree Street, NE
Atlanta, GA 30303
Chemtrec - Emergency :
800.424.9300

HIT-RE 500 V3

Safety information for 2-Component-products

Date of issue: 13/11/2015

Revision date: 12/11/2015

Version: 1.0

SECTION 1: Kit identification

1.1 Product identifier

Name	HIT-RE 500 V3
Product code	BU Anchor



1.2 Details of the supplier of the Safety information for 2-Component-products

Hilti, Inc.
 Legacy Tower, Suite 1000
 75024 Plano - USA
 T +1 9724035800
 1-800-879-8000 toll free - F +1 918 254 0522

SECTION 2: General information

A SDS for each of these components is included. Please do not separate any component SDS from this cover page.

This Kit should be handled in accordance with good laboratory practices and appropriate personal protective equipment should be used.

SECTION 3: Kit contents

Classification of the Product

GHS-US classification	
Skin Corr. 1A	H314
Skin Sens. 1	H317
STOT SE 3	H335
Aquatic Chronic 2	H411

Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

Danger

Hazardous ingredients

Epoxy resin, Amines

Hazard statements (GHS-US)

H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H335 - May cause respiratory irritation
 H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US)

P280 - Wear eye protection, protective clothing, protective gloves
 P262 - Do not get in eyes, on skin, or on clothing
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
 P337+P313 - If eye irritation persists: Get medical advice/attention

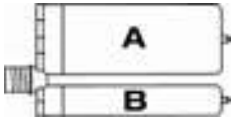
HIT-RE 500 V3

Kit Safety Information Sheet

P302+P352 - IF ON SKIN: Wash with plenty of water

Additional information

2-component-foilpack, contains:
 Component A: Epoxy resin, Reactive diluent, inorganic filler
 Component B: Amine hardener, inorganic filler



Name	General description	Quantity	Unit	GHS-US classification
HIT-RE 500 V3, A		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
HIT-RE 500 V3, B		1	pcs (pieces)	Skin Corr. 1A, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412

SECTION 4: General advice

General advice For professional users only

SECTION 5: Safe handling advice

Environmental precautions	Prevent entry to sewers and public waters Notify authorities if liquid enters sewers or public waters Avoid release to the environment
Storage conditions	Protect from sunlight. Store in a well-ventilated place
Technical measures	Comply with applicable regulations
Precautions for safe handling	Wear personal protective equipment Avoid contact with skin and eyes Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work Avoid contact during pregnancy/while nursing
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation Recover mechanically the product On land, sweep or shovel into suitable containers Store away from other materials
For containment	Collect spillage
Incompatible materials	Sources of ignition Direct sunlight
Incompatible products	Strong bases Strong acids

SECTION 6: First aid measures

First-aid measures after eye contact	Get immediate medical advice/attention Immediately rinse with water for a prolonged period while holding the eyelids wide open Remove contact lenses, if present and easy to do. Continue rinsing Consult an eye specialist
First-aid measures after ingestion	Drink plenty of water Do not induce vomiting Rinse mouth Immediately call a POISON CENTER or doctor/physician
First-aid measures after inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing

HIT-RE 500 V3

Kit Safety Information Sheet

First-aid measures after skin contact	Wash with plenty of soap and water Remove/Take off immediately all contaminated clothing Wash contaminated clothing before reuse If skin irritation or rash occurs: Get immediate medical advice/attention
First-aid measures general	Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)
Symptoms/injuries	Causes severe skin burns and eye damage
Symptoms/injuries after eye contact	Causes serious eye damage
Symptoms/injuries after inhalation	May cause an allergic skin reaction

SECTION 7: Fire fighting measures

Firefighting instructions	Use water spray or fog for cooling exposed containers Exercise caution when fighting any chemical fire Prevent fire-fighting water from entering environment
Protection during firefighting	Self-contained breathing apparatus Do not enter fire area without proper protective equipment, including respiratory protection
Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide Carbon monoxide

SECTION 8: Other information

No data available

HIT-RE 500 V3, B

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 11/13/2015

Revision date: 11/12/2015

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	Mixture
Name	HIT-RE 500 V3, B
Product code	BU Anchor

1.2. Relevant identified uses of the substance or mixture and uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier	Department issuing data specification sheet
Hilti, Inc.	Hilti Entwicklungsgesellschaft mbH
Legacy Tower, Suite 1000	Hiltistrasse 6
75024 Plano - USA	86916 Kaufering - Deutschland
T +1 9724035800	T +49 8191 906310 - F +49 8191 90176310
1-800-879-8000 toll free - F +1 918 254 0522	anchor.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Chem-Trec
	Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
	Tel.: 703 527 3887 (Other countries)
	+1 918 8723000
	1-800-879-8000 toll free

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Corr. 1A	H314 - Causes severe skin burns and eye damage
Skin Sens. 1	H317 - May cause an allergic skin reaction
STOT SE 3	H335 - May cause respiratory irritation
Aquatic Chronic 3	H412 - Harmful to aquatic life with long lasting effects

Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



GHS05

GHS07

Signal word (GHS-US)

Danger

Hazard statements (GHS-US)

H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H335 - May cause respiratory irritation
 H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS-US)

P280 - Wear eye protection, protective clothing, protective gloves
 P262 - Do not get in eyes, on skin, or on clothing
 P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

HIT-RE 500 V3, B

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
 P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
2-methyl-1,5-pentanediamine	(CAS No) 15520-10-2	25-40	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335
Quartz	(CAS No) 14808-60-7	10 - 25	Carc. 1A, H350
Phenol, styrenated	(CAS No) 61788-44-1	5-10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
m-Xylylenediamine	(CAS No) 1477-55-0	5-<8	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 Skin Sens. 1B, H317 Aquatic Chronic 3, H412
2,4,6-tris(dimethylaminomethyl)phenol	(CAS No) 90-72-2	1-2,5	Skin Corr. 1B, H314 Skin Sens. 1B, H317 Aquatic Chronic 3, H412
3-Aminopropyltriethoxysilan	(CAS No) 919-30-2	1-2,5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.
First-aid measures after eye contact	Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.
First-aid measures after ingestion	Drink plenty of water. Do not induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	Causes severe skin burns and eye damage.
Symptoms/injuries after inhalation	May cause an allergic skin reaction.
Symptoms/injuries after eye contact	Causes serious eye damage.

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4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity	Corrosive vapours.
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5.3. Advice for firefighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	Collect spillage.
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation. Recover mechanically the product. On land, sweep or shovel into suitable containers. Store away from other materials.
Other information	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact during pregnancy/while nursing.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	Comply with applicable regulations.
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Storage conditions	Protect from sunlight. Store in a well-ventilated place.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 - 25 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information	The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.
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8.2. Exposure controls

Personal protective equipment	Avoid all unnecessary exposure. Safety glasses. Gloves. Protective clothing.
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Hand protection	Wear protective gloves.
Eye protection	Chemical goggles or face shield.
Skin and body protection	Wear suitable protective clothing.
Environmental exposure controls	Avoid release to the environment.
Consumer exposure controls	Avoid contact during pregnancy/while nursing.
Other information	Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	red
Odour	Amine-like
Odour threshold	No data available
pH	11.5
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available
Vapour pressure	No data available
Relative density	No data available
Relative vapour density at 20 °C	No data available
Density	1,31 g/cm ³
Solubility	insoluble in water.

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Log Pow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	50 - 70 Pa.s HN-0333

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive vapours.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : fume. Carbon monoxide. Carbon dioxide. Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity Not classified

2-methyl-1,5-pentanediamine (15520-10-2)	
LD50 oral rat	1690 mg/kg (Rat)
LD50 dermal rat	1870 mg/kg
LC50 inhalation rat (mg/l)	4.9 mg/l
ATE US (oral)	1690.000 mg/kg bodyweight
ATE US (dermal)	1870.000 mg/kg bodyweight
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	4.900 mg/l/4h
ATE US (dust,mist)	4.900 mg/l/4h
Phenol, styrenated (61788-44-1)	
LD50 oral rat	> 2500 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	158.31 mg/l/4h
ATE US (vapours)	158.310 mg/l/4h
ATE US (dust,mist)	158.310 mg/l/4h

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m-Xylylenediamine (1477-55-0)	
LD50 oral rat	1090 mg/kg
LD50 dermal rat	> 3100 mg/kg
ATE US (oral)	660.000 mg/kg bodyweight
ATE US (dermal)	2000.000 mg/kg bodyweight
ATE US (dust,mist)	1.340 mg/l/4h

3-Aminopropyltriethoxysilan (919-30-2)	
ATE US (oral)	500.000 mg/kg bodyweight

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LD50 oral rat	2169 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 2169 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study; Other; >1 ml/kg; Rat; Experimental value)
ATE US (oral)	2169.000 mg/kg bodyweight

Skin corrosion/irritation	Causes severe skin burns and eye damage. pH: 11.5
Serious eye damage/irritation	Not classified pH: 11.5
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
Carcinogenicity	Not classified

Quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	May cause an allergic skin reaction.
Symptoms/injuries after eye contact	Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water Harmful to aquatic life with long lasting effects.

2-methyl-1,5-pentanediamine (15520-10-2)	
LC50 fish 1	130 mg/l (LC50; 48 h)
LOEC (acute)	1800 mg/l
NOEC (acute)	1000 mg/l

Phenol, styrenated (61788-44-1)	
LC50 fish 1	5.6 mg/l
LC50 other aquatic organisms 1	9.7 mg/l
EC50 Daphnia 1	1.44 mg/l
NOEC (acute)	3.2 mg/l

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Phenol, styrenated (61788-44-1)	
Threshold limit algae 1	0.326 mg/l (72 h; Algae)
Threshold limit algae 2	0.140 mg/l (72 h; Algae)

m-Xylylenediamine (1477-55-0)	
LC50 fish 1	75 mg/l
LC50 other aquatic organisms 1	20.3 ppb
EC50 Daphnia 1	15 mg/l
LOEC (chronic)	15 mg/l
NOEC (acute)	10.5 mg/kg
NOEC (chronic)	4.7 mg/l
NOEC chronic crustacea	4.7 mg/l

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LC50 fish 1	> 100 mg/l (96 h; Pisces; Nominal concentration)
EC50 Daphnia 1	10 - 100 mg/l (Invertebrata; Estimated value)
EC50 other aquatic organisms 1	84 mg/l (72 h; Desmodesmus subspicatus; growth rate; ECHA)
LC50 fish 2	70.9 mg/l (96 h; Pisces)
NOEC (chronic)	2 mg/l (28 d; activated sludge, domestic; respiration rate; ECHA)
Threshold limit algae 1	10 - 100, Algae
Threshold limit algae 2	84 mg/l (72 h; Scenedesmus subspicatus; Growth rate)

12.2. Persistence and degradability

HIT-RE 500 V3, B	
Persistence and degradability	May cause long-term adverse effects in the environment.

2-methyl-1,5-pentanediamine (15520-10-2)	
Persistence and degradability	Biodegradability in water: no data available.

Phenol, styrenated (61788-44-1)	
Persistence and degradability	Not readily biodegradable in water. Biodegradability in soil: no data available. No (test) data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0.000231 g O ₂ /g substance
Chemical oxygen demand (COD)	0.004827 g O ₂ /g substance

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Persistence and degradability	Not readily biodegradable in water. Highly mobile in soil. Low potential for adsorption in soil.

12.3. Bioaccumulative potential

HIT-RE 500 V3, B	
Bioaccumulative potential	Not established.

2-methyl-1,5-pentanediamine (15520-10-2)	
Log Pow	0.27 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Phenol, styrenated (61788-44-1)	
BCF fish 2	3246 mg/l
Log Pow	6.24 - 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Log Pow	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects

Effect on the global warming No known ecological damage caused by this product.

Other information Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods





Regional legislation (waste) Disposal must be done according to official regulations.

Waste disposal recommendations Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to Avoid release to the environment, Refer to manufacturer/supplier for information on recovery/recycling.

Ecology - waste materials Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
3259	3259	3259	3259
14.2. UN proper shipping name			
AMINES, SOLID, CORROSIVE, N.O.S.	AMINES, SOLID, CORROSIVE, N.O.S.	Amines, solid, corrosive, n.o.s.	AMINES, SOLID, CORROSIVE, N.O.S.
Transport document description			
UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylendiamin), 8, II, (E)	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylendiamin), 8, II		
14.3. Transport hazard class(es)			
8	8	8	8
			
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available			

14.6. Special precautions for user

- Overland transport

Classification code (ADR) C8
 Special provisions (ADR) 274

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Limited quantities (ADR) 1kg
 Packing instructions (ADR) P002, IBC08
 Mixed packing provisions (ADR) MP10
 Orange plates



Tunnel restriction code (ADR) E

- Transport by sea

Special provisions (IMDG) 274
 Limited quantities (IMDG) 1 kg
 Packing instructions (IMDG) P002
 EmS-No. (Fire) F-A
 EmS-No. (Spillage) S-B
 Stowage category (IMDG) A
 Stowage and segregation (IMDG) 'Separated from' acids.
 MFAG-No 154

- Air transport

PCA packing instructions (IATA) 859
 PCA max net quantity (IATA) 15kg
 Special provisions (IATA) A3

- Rail transport

Special provisions (RID) 274
 Limited quantities (RID) 1kg
 Packing instructions (RID) P002, IBC08
 Carriage prohibited (RID) No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Aluminium oxide	CAS No 1344-28-1	5 - 10%
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15.2. International regulations

CANADA

HIT-RE 500 V3, B	
WHMIS Classification	Class E - Corrosive Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects

EU-Regulations

No additional information available

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Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Corr. 1A H314
 Eye Dam. 1 H318
 Skin Sens. 1 H317
 STOT SE 3 H335
 Aquatic Chronic 3 H412

Full text of hazard classes and H-statements : see section 16

National regulations

Quartz (14808-60-7)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date 11/12/2015
 Other information None.

Full text of H-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Carc. 1A	Carcinogenicity, Category 1A
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 4	Flammable liquids, Category 4
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
Skin Sens. 1B	Sensitisation — Skin, category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H227	Combustible liquid
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H412	Harmful to aquatic life with long lasting effects

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NFPA health hazard

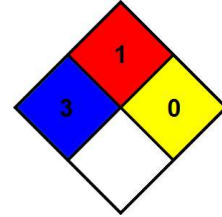
3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

1 - Must be preheated before ignition can occur.

NFPA reactivity

0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health

3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical

0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection

B

B - Safety glasses, Gloves

SDS_US_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

HIT-RE 500 V3, A

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Date of issue: 11/13/2015

Revision date: 11/12/2015

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	Mixture
Name	HIT-RE 500 V3, A
Product code	BU Anchor

1.2. Relevant identified uses of the substance or mixture and uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier	Department issuing data specification sheet
Hilti, Inc.	Hilti Entwicklungsgesellschaft mbH
Legacy Tower, Suite 1000	Hiltistrasse 6
75024 Plano - USA	86916 Kaufering - Deutschland
T +1 9724035800	T +49 8191 906310 - F +49 8191 90176310
1-800-879-8000 toll free - F +1 918 254 0522	anchor.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Chem-Trec
	Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
	Tel.: 703 527 3887 (Other countries)
	+1 918 8723000
	1-800-879-8000 toll free

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irrit. 2	H315 - Causes skin irritation
Eye Dam. 1	H318 - Causes serious eye damage
Skin Sens. 1	H317 - May cause an allergic skin reaction
Aquatic Chronic 2	H411 - Toxic to aquatic life with long lasting effects

Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

Danger

Hazard statements (GHS-US)

H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US)

P260 - Do not breathe fume
 P280 - Wear eye protection, protective clothing, protective gloves
 P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
 P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Quartz	(CAS No) 14808-60-7	25 - 40	Carc. 1A, H350
Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700	(CAS No) 25068-38-6	25 - 40	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	(CAS No) 9003-36-5	10 - 25	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
butanedioldiglycidyl ether	(CAS No) 2425-79-8	5 - 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	(CAS No) 30499-70-8	5 - 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	(CAS No) 2530-83-8	2,5 - 5	Eye Dam. 1, H318

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Allow breathing of fresh air. Allow the victim to rest.
First-aid measures after skin contact	Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get immediate medical advice/attention.
First-aid measures after eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	Rinse mouth. Drink plenty of water. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	May cause an allergic skin reaction.
Symptoms/injuries after skin contact	Causes skin irritation.
Symptoms/injuries after eye contact	Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

HIT-RE 500 V3, A

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray. Carbon dioxide. Dry powder. Foam. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	Collect spillage.
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation. Recover mechanically the product. On land, sweep or shovel into suitable containers. Store away from other materials.
Other information	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Protect from sunlight.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 - 25 °C

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information

The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.

8.2. Exposure controls

Personal protective equipment

Avoid all unnecessary exposure. Safety glasses. Gloves. Protective clothing.



Hand protection

Wear protective gloves.

Eye protection

Chemical goggles or safety glasses.

Skin and body protection

Wear suitable protective clothing.

Environmental exposure controls

Avoid release to the environment.

Consumer exposure controls

Avoid contact during pregnancy/while nursing.

Other information

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	Light grey
Odour	characteristic
Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available
Vapour pressure	No data available
Relative density	No data available
Relative vapour density at 20 °C	No data available
Density	1,45 g/cm ³
Solubility	insoluble in water.
Log Pow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

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Viscosity, kinematic No data available
 Viscosity, dynamic 45 - 59 Pa.s 23 °C

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity Not classified

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; ECHA)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; ECHA)
butanedioldiglycidyl ether (2425-79-8)	
LD50 oral rat	2980 mg/kg (Rat)
LD50 dermal rabbit	1130 mg/kg (Rabbit)
ATE US (oral)	1163.000 mg/kg bodyweight
ATE US (dermal)	1130.000 mg/kg bodyweight
ATE US (dust,mist)	1.500 mg/l/4h
Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)	
LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
LD50 oral rat	8025 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	4250 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
ATE US (oral)	8025.000 mg/kg bodyweight
ATE US (dermal)	4250.000 mg/kg bodyweight

Skin corrosion/irritation Causes skin irritation.
 Serious eye damage/irritation Causes serious eye damage.

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Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
Carcinogenicity	Not classified

Quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	May cause an allergic skin reaction.
Symptoms/injuries after skin contact	Causes skin irritation.
Symptoms/injuries after eye contact	Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water Toxic to aquatic life with long lasting effects.

butanedioldiglycidyl ether (2425-79-8)	
LC50 fish 1	24 mg/l (96 h; Pisces) ECHA
LC50 other aquatic organisms 1	> 160 mg/l
NOEC (acute)	40 mg/l
Threshold limit algae 1	88930 mg/l (96 h; Algae)

Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)	
LC50 fish 1	1.2 mg/l (96 h; Oncorhynchus mykiss; Lethal)
EC50 Daphnia 1	1.1 - 2.8 mg/l (48 h; Daphnia magna; Locomotor effect)
LC50 fish 2	2.3 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)
Threshold limit algae 1	> 11 mg/l (72 h; Scenedesmus sp.)
Threshold limit algae 2	4.2 mg/l (72 h; Scenedesmus sp.)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
LC50 fish 1	55 mg/l (96 h; Cyprinus carpio; Young)
EC50 Daphnia 1	473 - 710 mg/l (48 h; Daphnia magna)
LC50 fish 2	237 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
Threshold limit algae 1	119 mg/l (7 days; Anabaena flosaquae)
Threshold limit algae 2	250 mg/l (72 h; Selenastrum capricornutum)

12.2. Persistence and degradability

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Persistence and degradability	May cause long-term adverse effects in the environment.
butanedioldiglycidyl ether (2425-79-8)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.01982 g O ₂ /g substance

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Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)	
Persistence and degradability	Not readily biodegradable in water. Hydrolysis in water. Low potential for adsorption in soil.
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
Persistence and degradability	Not readily biodegradable in water. Hydrolysis in water. No (test)data on mobility of the substance available.

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
butanedioldiglycidyl ether (2425-79-8)	
Log Pow	-0.15
Bioaccumulative potential	Bioaccumulation: not applicable.
Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)	
BCF other aquatic organisms 1	3 - 31
Log Pow	>= 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
Log Pow	-0.92 (Estimated value)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)	
Surface tension	0.0 587-0.0589,20 °C

12.5. Other adverse effects

Effect on the global warming	No known ecological damage caused by this product.
Other information	Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	Disposal must be done according to official regulations.
Waste disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to Avoid release to the environment, Refer to manufacturer/supplier for information on recovery/ recycling.
Ecology - waste materials	Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
Not regulated for transport			
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	RID
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
ADR 5.2.1.8.1 derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)			
not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7			

14.6. Special precautions for user

- Overland transport

Special provisions (ADR) 375

- Transport by sea

No data available

- Air transport

Special provisions (IATA) A197

- Rail transport

Carriage prohibited (RID) No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
butanedioldiglycidyl ether (2425-79-8)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane (30499-70-8)	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

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15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Irrit. 2 H315
 Eye Dam. 1 H318
 Skin Sens. 1 H317
 Aquatic Chronic 2 H411

Full text of hazard classes and H-statements : see section 16

National regulations

Quartz (14808-60-7)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date 11/12/2015
 Other information None.

Full text of H-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Carc. 1A	Carcinogenicity, Category 1A
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H350	May cause cancer
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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NFPA health hazard

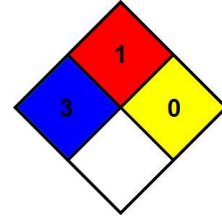
3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

1 - Must be preheated before ignition can occur.

NFPA reactivity

0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical

1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Personal Protection

B
B - Safety glasses, Gloves

SDS_US_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



GreenGuard® XPS Insulation Board

SAFETY DATA SHEET

1 Identification of Products and Company

Products

Kingspan GreenGuard® IV XPS Insulation Board

Kingspan GreenGuard® VI XPS Insulation Board

Kingspan GreenGuard® IV 4 Insulation Board

Kingspan GreenGuard® VII XPS Insulation Board

Kingspan GreenGuard® V XPS Insulation Board

Company

Kingspan Insulation LLC

2100 RiverEdge Parkway, Suite 175

Atlanta, GA

USA, 30328

Tel: 1-800-241-4402

Email: info@kingspaninsulation.us

Website: www.kingspaninsulation.us

2 Hazards Identification

Classification:

Not classified as a hazardous chemical according to GHS.

Label Elements:

No hazard classifications.

Other Hazards:

Board Product does not present an inhalation, ingestion, or contact health hazard unless subjected to operations such as cutting, sawing or machining which result in the generation of airborne particulate.

Other Hazards Classifications:

USA: This product conforms to the U.S. Occupational Safety and Health Administration (OSHA) Hazard Communication Standard's definition of an "Article," i.e., "...a manufactured item: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent ...upon its shape or design...; and (iii) which does not release, or otherwise result in exposure to, a hazardous chemical, under normal conditions of use." [29 CFR 1910.1200 (b) (iv)] This product is an article pursuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard requirement.

Canada: This is not a controlled product under WHMIS. This product meets the definition of a "Manufactured Article" and is not subject to the regulations of the Hazardous Products Act. While this product is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) and under WHMIS, this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

3 Composition

Chemical Name	Case No.	% Weight Range
No hazardous ingredients by OSHA and WHMIS criteria.		

4 First Aid measures

Description of first-aid measures:

Inhalation: If symptoms are experienced, remove source of contamination or have person move to fresh air. Obtain medical advice.

Skin Contact: If irritation does occur, wash with plenty of water. If irritation persists, obtain medical advice.

Eyes: If particulate contacts the eyes, rinse cautiously with water while holding the eyelids open. If irritation persists obtain medical attention. DO NOT attempt to manually remove anything stuck to the eye.

Ingestion: Not acutely toxic if swallowed. If swallowed, call a POISON CENTER or doctor.

Most important symptoms and effects, both acute and delayed: High concentrations of dust may cause coughing and mild, temporary irritation following a short-term exposure. Heavy prolonged industrial exposure to high airborne concentrations of dust may cause impaired lung function. Chronic bronchitis, pulmonary fibrosis and respiratory tract lesions have also been reported with high level inhaled dust exposures.

5 Firefighting Measures

Extinguishing Media:

Use water spray, foam, carbon dioxide, dry chemical, or other extinguishing media appropriate for the surrounding fire. Water or foam may cause frothing. Use water to keep fire-exposed material cool.

Special Hazards arising from substance:

Not flammable. Product can burn if involved in a fire. During a fire, combustion can generate toxic fumes which may include resin fragments, smoke, carbon monoxide and carbon dioxide, acrolein, halogens, acids, ketones and aldehydes. Well-established fires are difficult to bring under control.

Advice for Firefighters:

As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Fight fire from a protected location or a safe distance. Prevent water runoff from fire control from entering natural waterways, sewers and drinking water supplies.

6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Wear proper personal protective equipment as indicated in Section 8.

Environmental precautions:

It is good practice to prevent release of this product into the environment.

Methods and material for containment and cleaning up:

Sweep, scoop or vacuum product for recovery, recycling or disposal.

Additional Information:

See Section 8 for information on selection of personal protective equipment.

See Section 13 for information on disposal of spilled product.

7 Handling and Storage

Precautions for safe handling:

During cutting machining operations, avoid contact with eyes and skin. Wear protective gloves.

Avoid breathing dusts. Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material.

Conditions for safe storage, including any incompatibilities:

KEEP OUT OF REACH OF CHILDREN. Protect from water and moisture. See Section 13 for disposal considerations.

8 Exposure Controls/Personal Protection

Occupational exposure limits: Consult local authorities for acceptable exposure limits. No recognized exposure limits for airborne chemical substances from this solid article.

Ingredient	ACGIH® TLV®	OSHA	ONTARIO (Canada) TWA
Inhalable dust	3 mg/m ³ (respirable)	5 mg/m ³ (respirable)	3 mg/m ³ (respirable)
	10 mg/m ³ (inhalable)	15 mg/m ³ (inhalable)	10 mg/m ³ (inhalable)
	Particles (insoluble or poorly soluble) Not Otherwise specified (PNOS)	Particles (insoluble or poorly soluble) Not Otherwise specified (PNOS)	Particles (insoluble or poorly soluble) Not Otherwise specified (PNOS)

Exposure Controls:

Engineering controls:	Provide good general ventilation or local exhaust ventilation when necessary to control dust concentrations below exposure limits.
Personal protection:	Follow the directions for personal protective equipment for the worksite. Appropriate protective footwear is recommended when handling large boards.
Inhalation:	When dust concentrations in air exceed the occupational exposure guidelines, wear an approved particulate respirator equipped with an N95, R95 or P95 filter. A respiratory protection program that meets the regulatory requirements, such as OSHA's 29 CFR 1910.134 and ANSI Z88.2 or Canadian Standards Association (CSA) Standard Z94.4, must be followed whenever workplace conditions warrant a respirator's use.
Eyes / Face:	Wear safety glasses or goggles for all cutting operations.
Skin:	Not required for normal use of this product, however it is good practice to wear gloves and clean body-covering clothing.

9 Physical and Chemical Properties

Information on basic physical and chemical properties:

Appearance:	Solid; Green extruded polystyrene Insulation Board
Odor:	Odorless
Odor threshold:	Not applicable
pH:	Not applicable
Melting point:	>93°C (200°F)
Initial boiling point and boiling range:	Not applicable
Evaporation rate:	Not applicable
Flash point:	Not applicable
Flammability:	>260°C (500°F) ASTM D 1929
Auto-ignition temperature:	>482°C (900°F)
Upper/lower flammability or explosive limits:	Not determined
Explosive properties:	Not applicable
Oxidizing properties:	Not applicable
Sensitivity to mechanical impact:	Not applicable
Sensitivity to static discharge:	Not available
Vapor pressure:	Not applicable
Vapor Density:	Not applicable
Relative density:	0.07 (water=1)
Solubility (is):	Insoluble in water
Partition coefficient (n-octane / water):	Not applicable
Decomposition temperature:	Not available
VOC Content:	Not available
Viscosity:	Not applicable

10 Stability and Reactivity

Reactivity: Not classified for reactivity hazards.

Chemical stability: Stable at normal ambient and anticipated storage and handling conditions.

Possibility of hazardous reactions: None known.

Conditions to avoid: Do not use in conditions of extreme heat or near open flames.

Incompatible materials: Strong oxidizers, aromatic and chlorinated hydrocarbons.

Hazardous decomposition products: Thermal decomposition and incomplete combustion can produce toxic fumes containing the following: acids, acrolein, aldehydes, halogens, ketones, monomers, possible hydrocarbons, carbon monoxide and carbon dioxide.

11 Toxicological Information

Information on toxicological effects:

Acute health effects:

Acute toxicity data are not available for this article.

Irritation:

Worker experience with this material indicates the product is non-irritating. Animal test data indicates the material is non-irritating.

Dusts of this product may cause mild, temporary skin irritation by mechanical abrasion. Dusts may cause temporary irritation as a foreign objection in the eye.

Chronic health effects:

None known

Sensitization:

None known

Neurological effects:

None known

Genetic effects:

None known

Reproductive effects:

Data not available

Developmental effects:

For the flame retardant additive listed in Section 3: NOAEL for teratogenic effects = 1000 mg/kg bw (rat, gavage)

Target organ effects:

None known

Carcinogenicity:

The component substances are not classified as carcinogens in humans as described by ACGIH (American Conference of Governmental Industrial Hygienists) and IARC (International Agency for Research on Cancer)

Medical conditions aggravated by exposure:

None known

Interactions with other chemicals:

Tobacco smoking in combination with long-term high dust exposures may increase both smoking and dust-related pulmonary health problems.

12 Ecological Information

Toxicity: Not available

Persistence and degradability: This product is not readily bio-degradable. Plastic components will photodegrade with prolonged exposures to UV light (e.g. sunlight). Product is treated with a flame retardant substance which is known to be persistent, bioaccumulative and toxic in the aquatic environment. Prevent releases to the environment and ensure proper disposal.

Bioaccumulative potential: Not available

Mobility in soil: Not available

13 Disposal Considerations

Waste treatment methods:

Where facilities exist, the product and packaging can be recycled. Dispose in accordance with local regulations. Store material for disposal as indicated in Section 7 Handling and Storage. Proper incineration in state-of-the-art incinerators equipped with after-burners, yields carbon dioxide and water. Polymer materials may not decompose in modern sanitary landfills. Materials may be recycled where adequate collection and recycling facilities exist.

14 Transport Information

UN Number: Not regulated as a dangerous good for transport

UN proper shipping name: Not regulated as a dangerous good for transport

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for user: None known

15 Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

USA:

OSHA: Article, Non-Hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.120 (2012).

TSCA Inventory: All component substances are listed on the TSCA 8(b) inventory.

Contains: Hexabromocyclododecane as flame-retardant TSCA Section 8(a) PAIR reporting list; Section 8(d) health and safety reporting list of substances.

SARA Title III : Sec.302 / 304 : None.

Sec. 313 : None.

Canada:

WHMIS Classification: Not controlled. Product meets the definition of a "manufactured article" and is not subject to the regulations of the Hazardous Products Act.

DSL: Component substances are listed on the DSL.

RoHS Compliance:

Restricted substances Cadmium, Lead, Mercury, Chromium VI, Polybrominated Biphenyls (PBBs) and Polybrominated Diphenyl Ethers (PBDEs) were below RoHS limits.

16 Other Information

Revision Date:

February 20, 2017.

References and sources for data:

Supplier MSDS for component materials.

Legend to abbreviations:

ACGIH: American Conference of Governmental Industrial Hygienists.

GHS: Globally Harmonized System for Classification and Labeling, UNECE 2013.

IARC: International Agency for Research on Cancer.

OSHA: United States, Occupational Safety and Health Administration.

NOAEL: No observed adverse effect level.

NTP: National Toxicology Program.

WHMIS: Canada, Workplace Hazardous Materials Information System.

Additional information:

For additional product and / or MSDS information, please contact Kingspan Insulation LLC at 800) 241-4402. Information provided by sources external to our company and set forth herein is offered in good faith as accurate, but without guarantee. Safety precautions contained herein cannot anticipate all individual and unique situations. Conditions of use and suitability of the product for particular uses are beyond our control. All risks of use of the product are, therefore, assumed by the user, and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing herein is intended as recommendation for uses which infringe valid patents or as extension of license under valid patents. Appropriate warnings and safe handling procedures should be provided to users.



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SAFETY DATA SHEET

1. Identification

Product identifier L&M Cure
Other means of identification None.
Recommended use Concrete curing compound.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Company Name LATICRETE International
Address 1 Laticrete Park, N
Bethany, CT 06524
Telephone (203)-393-0010
Contact person Steve Fine
Website www.laticrete.com
Emergency phone number Call CHEMTREC day or night
USA/Canada - 1.800.424.9300
Mexico - 1.800.681.9531
Outside USA/Canada
1.703.527.3887

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1
OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes skin irritation. Causes serious eye damage.

Precautionary statement

Prevention Wash thoroughly after handling. Wear protective gloves/eye protection/face protection.

Response If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) Not classified.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Sodium silicate	1344-09-8	35 - 40

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Skin contact	Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Get medical attention immediately.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if any discomfort continues.
Most important symptoms/effects, acute and delayed	Irritation of eyes and mucous membranes. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	By heating and fire, irritating vapors/gases may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Environmental manager must be informed of all major releases.

7. Handling and storage

Precautions for safe handling	Do not breathe mist or vapor. Do not get in eyes, on skin, on clothing. Use with adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in a cool and well-ventilated place. Store away from incompatible materials (See Section 10).

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles). Face-shield.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear liquid.
Physical state	Liquid.
Form	Liquid.
Color	Clear.
Odor	Odorless.
Odor threshold	Not available.
pH	11.3
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not applicable.
Flash point	Non flammable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	1.39
Solubility(ies)	
Solubility (water)	Soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Will not occur.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.

Incompatible materials	Strong acids.
Hazardous decomposition products	Silicon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	In high concentrations, vapors may be irritating to the respiratory system.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye damage.
Ingestion	Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics Irritation of eyes and mucous membranes. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity May cause discomfort if swallowed.

Components	Species	Test Results
Sodium silicate (CAS 1344-09-8)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	> 2.06 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	3400 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization No data available.

Skin sensitization Not a skin sensitizer.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity No data available.

Specific target organ toxicity - single exposure No data available.

Specific target organ toxicity - repeated exposure No data available.

Aspiration hazard No data available.

Chronic effects Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Further information No other specific acute or chronic health impact noted.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available for this product.

Mobility in soil No data available.

Mobility in general The product is soluble in water.

Other adverse effects No data available.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed.
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed.
Superfund Amendments and Reauthorization Act of 1986 (SARA)	
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazardous substance	Not listed.
SARA 311/312 Hazardous chemical	Yes
SARA 313 (TRI reporting)	Not regulated.
Other federal regulations	
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated.
Safe Drinking Water Act (SDWA)	Not regulated.
US state regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
US. Massachusetts RTK - Substance List	Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not Listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	15-July-2014
Revision date	15-July-2014
Version #	02
NFPA ratings	

List of abbreviations

References HSDB® - Hazardous Substances Data Bank
Registry of Toxic Effects of Chemical Substances (RTECS)

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SAFETY DATA SHEET

1. Identification

Product identifier L&M Seal Hard
Other means of identification Not available.
Recommended use Concrete hardener/sealer.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Company Name LATICRETE International
Address 1 Laticrete Park, N
Bethany, CT 06524
Telephone (203)-393-0010
Contact person Steve Fine
Website www.laticrete.com
Emergency phone number Call CHEMTREC day or night
USA/Canada - 1.800.424.9300
Mexico - 1.800.681.9531
Outside USA/Canada
1.703.527.3887

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1
OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes skin irritation. Causes serious eye damage.

Precautionary statement

Prevention Wash thoroughly after handling. Wear protective gloves/eye protection/face protection.

Response If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) Not classified.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Sodium silicate	1344-09-8	10 - 13

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Skin contact	Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Get medical attention immediately.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if any discomfort continues.
Most important symptoms/effects, acute and delayed	Irritation of eyes and mucous membranes. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	By heating and fire, irritating vapors/gases may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Environmental manager must be informed of all major releases.

7. Handling and storage

Precautions for safe handling	Do not breathe mist or vapor. Do not get in eyes, on skin, on clothing. Use with adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in a cool and well-ventilated place. Store away from incompatible materials (See Section 10).

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles). Face-shield.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear liquid.
Physical state	Liquid.
Form	Liquid.
Color	Clear.
Odor	Odorless.
Odor threshold	Not available.
pH	11.3
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not applicable.
Flash point	Non flammable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	1.39
Solubility(ies)	
Solubility (water)	Soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Will not occur.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.

Incompatible materials Strong acids.
Hazardous decomposition products Silicon oxides.

11. Toxicological information

Information on likely routes of exposure

Ingestion Ingestion may cause irritation and malaise.
Inhalation In high concentrations, vapors may be irritating to the respiratory system.
Skin contact Causes skin irritation.
Eye contact Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics Irritation of eyes and mucous membranes. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity May cause discomfort if swallowed.

Components	Species	Test Results
Sodium silicate (CAS 1344-09-8)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 2.06 mg/l, 4 Hours
<i>Oral</i>		
LD50	Mouse	6600 mg/kg
	Rat	1500 - 2200 mg/kg
		500 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization No data available.

Skin sensitization Not a skin sensitizer.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity No data available.

Specific target organ toxicity - single exposure No data available.

Specific target organ toxicity - repeated exposure No data available.

Aspiration hazard No data available.

Chronic effects Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Further information No other specific acute or chronic health impact noted.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Mobility in general The product is soluble in water.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 15-July-2014**Revision date** -**Version #** 01**NFPA ratings****References**HSDB® - Hazardous Substances Data Bank
Registry of Toxic Effects of Chemical Substances (RTECS)**Disclaimer**

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SAFETY DATA SHEET

SDS ID NO.: 0290MAR019
Revision Date 06/01/2016

1. IDENTIFICATION

Product Name: Marathon Petroleum No. 2 Ultra Low Sulfur Diesel

Synonym: #2 Diesel; No. 2 Ultra Low Sulfur Diesel 15 ppm Sulfur Max; Ultra Low Sulfur Diesel No. 2 15 ppm Sulfur Max; Ultra Low Sulfur Diesel No. 2 15 ppm Sulfur Max with Polar Plus; No. 2 Diesel, Motor Vehicle Use, Undyed; No. 2 Diesel, Motor Vehicle Use, Undyed, with Polar Plus; ULSD No. 2 Diesel 15 ppm Sulfur Max; ULSD No. 2 Diesel 15 ppm Sulfur Max with Polar Plus; No. 2 NR 15 Diesel; No. 2 NR 15 Diesel with Polar Plus; No. 2 Ultra Low Sulfur Diesel Dyed 15 ppm Sulfur Max; Ultra Low Sulfur Diesel No. 2 Dyed 15 ppm Sulfur Max; Ultra Low Sulfur Diesel No. 2 Dyed 15 ppm Sulfur Max with Polar Plus; No. 2 Diesel, Tax Exempt-Motor Vehicle Use, Dyed; No. 2 Diesel, Tax Exempt-Motor Vehicle Use, Dyed, with Polar Plus; ULSD No. 2 Diesel Dyed 15 ppm Sulfur Max; ULSD No. 2 Diesel Dyed 15 ppm Sulfur Max, with Polar Plus; No. 2 NR 15 Diesel Dyed; No. 2 NR 15 Diesel Tx Le Dyed; #2 NR 15 CFI Diesel; #2 NR 15 CFI Diesel Dyed; No. 2 Low Sulfur Diesel (TxLED); No. 2 NR 15 Diesel Dyed, with Polar Plus; No. 2 NRLM 15 Diesel Dyed; No.2 NRLM Diesel Dyed; No.2 Low Emission Low Sulfur Diesel; No. 2 Heating Oil 5000 NMA Unmarked; NEMA No. 2 Heating Oil; Heating Oil, No. 2 Low Sulfur 5000 ppm; No. 2 Ultra Low Sulfur Diesel Dyed with <6% Renewable Diesel Fuel; Ultra Low Sulfur No. 2 Diesel Dyed with <6% Renewable Diesel Fuel; No. 2 Diesel Dyed with <6% Renewable Diesel Fuel 15 ppm Sulfur Max; No. 2 Ultra Low Sulfur Diesel with <6% Renewable Diesel Fuel; Ultra Low Sulfur No. 2 Diesel with <6% Renewable Diesel Fuel; No. 2 Diesel with <6% Renewable Diesel Fuel 15 ppm Sulfur Max; Garyville Export Diesel; Export Diesel, Garyville; Diesel Fuel, Export Garyville; #2 Motor Vehicle ULSD 15 ppm with 0-5% Renewable Diesel; Marathon No. 2 ULSD with 0-5% Renewable Fuel with R100; Marathon No. 2 ULSD with 0-5% Renewable Fuel with R99; No. 2 Heating Oil 2000 ppm Sulfur Max, Clear (Undyed) Unmarked; Ultra Low Sulfur Heating Oil 15 ppm Sulfur Max, Clear (Undyed) Unmarked; ULS Heating Oil 15 ppm Clear (Undyed) Unmarked; ULS HO 15 ppm CLR; Ultra-Low Sulfur Heating Oil (<= 15ppm, Undyed); No. 2 Heating Oil 2000 ppm Sulfur Max, Dyed Unmarked; No. 2 Heating Oil 2000 ppm Sulfur Max, Dyed Marked; Ultra Low Sulfur Heating Oil 15 ppm Sulfur Max, Dyed Unmarked; Ultra Low Sulfur Heating Oil 15 ppm Sulfur Max, Dyed Marked; 15 ppm Sulfur Heating Oil Grade 67; 15 PPM Heating Oil; 15 PPM Dyed Heating Oil; 0291MAR019; 0306MAR019; 0308MAR019; 0334MAR019; 0335MAR019; 0336MAR019; 0337MAR019; 0340MAR019;

Product Code: 0290MAR019
Chemical Family: Complex Hydrocarbon Substance

Recommended Use: Fuel.
Restrictions on Use: All others.

Manufacturer, Importer, or Responsible Party Name and Address:
MARATHON PETROLEUM COMPANY LP
539 South Main Street
Findlay, OH 45840

SDS information: 1-419-421-3070

Emergency Telephone: CHEMTREC: 1-800-424-9300

2. HAZARD IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

Hazards Not Otherwise Classified (HNOC)


Static accumulating flammable liquid

Label elements

EMERGENCY OVERVIEW

Danger

FLAMMABLE LIQUID AND VAPOR
 May accumulate electrostatic charge and ignite or explode
 May be fatal if swallowed and enters airways
 Harmful if inhaled
 Causes skin irritation
 May cause respiratory irritation
 May cause drowsiness or dizziness
 Suspected of causing cancer
 May cause damage to organs (thymus, liver, bone marrow) through prolonged or repeated exposure
 Toxic to aquatic life with long lasting effects



Appearance Yellow to Red Liquid **Physical State** Liquid **Odor** Hydrocarbon

Precautionary Statements - Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use only non-sparking tools.
- Use explosion-proof electrical/ventilating/lighting/equipment
- Take precautionary measures against static discharge
- Do not breathe the mist/vapors/spray
- Use only outdoors or in a well-ventilated area

Wear protective gloves/protective clothing/eye protection/face protection
Wash hands and any possibly exposed skin thoroughly after handling
Avoid release to the environment

Precautionary Statements - Response

IF exposed or concerned: Get medical attention
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation occurs: Get medical attention
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell
IF SWALLOWED: Immediately call a POISON CENTER or doctor
Do NOT induce vomiting
In case of fire: Use water spray, fog or regular foam for extinction
Collect spillage

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Keep cool
Store locked up

Precautionary Statements - Disposal

Dispose of contents/container at an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

No. 2 Ultra Low Sulfur Diesel is a complex mixture of paraffins, cycloparaffins, olefins and aromatic hydrocarbon chain lengths predominantly in the range of eleven to twenty carbons. May contain up to 5% Renewable Diesel. May contain small amounts of dye and other additives (<0.15%) which are not considered hazardous at the concentration(s) used. May contain a trace amount of benzene (<0.01%). Contains a trace amount of sulfur (<0.0015%)

Composition Information:

Name	CAS Number	% Concentration
No. 2 Diesel Fuel	68476-34-6	50-100
Kerosine (petroleum)	8008-20-6	0-50
Alkanes, C10-C20 branched and linear	928771-01-1	0-5
Naphthalene	91-20-3	0.3-2.6

All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

4. FIRST AID MEASURES

First Aid Measures

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

Inhalation: Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

Skin Contact: Immediately wash exposed skin with plenty of soap and water while removing contaminated clothing and shoes. May be absorbed through the skin in harmful amounts. Get medical attention if irritation persists. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN).

Place contaminated clothing in closed container until cleaned or discarded. If clothing is to be laundered, inform the person performing the operation of contaminant's hazardous

properties. Destroy contaminated, non-chemical resistant footwear.

Eye Contact: Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. Get medical attention if irritation persists.

Ingestion: Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

Most important signs and symptoms, both short-term and delayed with overexposure

Adverse Effects: Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking. Prolonged or repeated exposure may cause adverse effects to the thymus, liver, and bone marrow.

Indication of any immediate medical attention and special treatment needed

Notes To Physician: INHALATION: This material (or a component) sensitizes the myocardium to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

SKIN: Leaks or accidents involving high-pressure equipment may inject a stream of material through the skin and initially produce an injury that may not appear serious. Only a small puncture wound may appear on the skin surface but, without proper treatment and depending on the nature, original pressure, volume, and location of the injected material, can compromise blood supply to an affected body part. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function and/or the affected body part. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES.

INGESTION: This material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small fires, Class B fire extinguishing media such as CO₂, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

Unsuitable extinguishing media

Do not use straight water streams to avoid spreading fire.

Specific hazards arising from the chemical

This product has been determined to be a flammable liquid per the OSHA Hazard Communication Standard and should be handled accordingly. May accumulate electrostatic charge and ignite or explode. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the Emergency Response Guidebook 128.

Hazardous combustion products

Smoke, carbon monoxide, and other products of incomplete combustion.

Explosion data

Sensitivity to Mechanical Impact No.
Sensitivity to Static Discharge Yes.

Special protective equipment and precautions for firefighters

Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Keep run-off water out of sewers and water sources.

Additional firefighting tactics

FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles: if this is impossible, withdraw from area and let fire burn.

EVACUATION: Consider initial downwind evacuation for at least 1000 feet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 5280 feet (1 mile) in all directions; also, consider initial evacuation of 5280 feet (1 mile) in all directions.

NFPA Health 1 Flammability 2 Instability 0 Special Hazard -

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources. All contaminated surfaces will be slippery.
- Protective equipment:** Use personal protection measures as recommended in Section 8.
- Emergency procedures:** Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.
- Environmental precautions:** Avoid release to the environment. Avoid subsoil penetration.
- Methods and materials for containment:** Contain liquid with sand or soil. Prevent spilled material from entering storm drains, sewers, and open waterways.
- Methods and materials for cleaning up:** Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers. When recovering free liquids ensure all equipment is grounded and bonded. Use only non-sparking tools.

7. HANDLING AND STORAGE

Safe Handling Precautions: NEVER SIPHON THIS PRODUCT BY MOUTH. Use appropriate grounding and bonding practices. Static accumulating flammable liquid. Bonding and grounding may be insufficient to eliminate the hazard from static electricity. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Vapors may travel along the ground or be moved by ventilation. Flashback may occur along vapor trails. No smoking. Use only non-sparking tools. Avoid breathing fumes, gas, or vapors. Use only with adequate ventilation. Avoid repeated and prolonged skin contact. Use personal protection measures as recommended in Section 8. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water. Do not cut, drill, grind or weld on empty containers since explosive residues may remain. Refer to applicable EPA, OSHA, NFPA and consistent state and local requirements.

Hydrocarbons are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering, pumping at high flow rates or loading and transfer operations. If this charge reaches a sufficiently high level, sparks can form that may ignite

the vapors of flammable liquids. Sudden release of hot organic chemical vapors or mists from process equipment operating under elevated temperature and pressure, or sudden ingress of air into vacuum equipment may result in ignition of vapors or mists without the presence of obvious ignition sources. Nozzle spouts must be kept in contact with the containers or tank during the entire filling operation.

Portable containers should never be filled while in or on a motor vehicle or marine craft. Containers should be placed on the ground. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. The nozzle spout must be kept in contact with the container before and during the entire filling operation. Use only approved containers.

A buildup of static electricity can occur upon re-entry into a vehicle during fueling especially in cold or dry climate conditions. The charge is generated by the action of dissimilar fabrics (i.e., clothing and upholstery) rubbing across each other as a person enters/exits the vehicle. A flash fire can result from this discharge if sufficient flammable vapors are present. Therefore, do not get back in your vehicle while refueling.

Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres or keep devices inside your vehicle during refueling.

High-pressure injection of any material through the skin is a serious medical emergency even though the small entrance wound at the injection site may not initially appear serious. These injection injuries can occur from high-pressure equipment such as paint spray or grease or guns, fuel injectors, or pinhole leaks in hoses or hydraulic lines and should all be considered serious. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES (See First Aid Section 4).

Storage Conditions: Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area. Do not store near an open flame, heat or other sources of ignition.

Incompatible Materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	ACGIH TLV	OSHA PELS:	OSHA - Vacated PELs	NIOSH IDLH
No. 2 Diesel Fuel 68476-34-6	100 mg/m ³ TWA Skin - potential significant contribution to overall exposure by the cutaneous route	-	-	-
Kerosine (petroleum) 8008-20-6	200 mg/m ³ TWA Skin - potential significant contribution to overall exposure by the cutaneous route	-	-	-
Alkanes, C10-C20 branched and linear 928771-01-1	-	-	-	-
Naphthalene 91-20-3	10 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 10 ppm TWA: 50 mg/m ³	10 ppm TWA 50 mg/m ³ TWA 15 ppm STEL 75 mg/m ³ STEL	250 ppm

Notes: The manufacturer has voluntarily elected to provide exposure limits contained in OSHA's 1989 air contaminants standard in its SDSs, even though certain of those exposure limits were vacated in 1992.

Engineering measures: Local or general exhaust required in an enclosed area or with inadequate ventilation. Use

mechanical ventilation equipment that is explosion-proof.

Personal protective equipment

- Eye protection:** Use goggles or face-shield if the potential for splashing exists.
- Skin and body protection:** Wear neoprene, nitrile or PVA gloves to prevent skin contact. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times.
- Respiratory protection:** Use a NIOSH approved organic vapor chemical cartridge or supplied air respirators when there is the potential for airborne exposures to exceed permissible exposure limits or if excessive vapors are generated. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 29 CFR 1910.134. Self-contained breathing apparatus should be used for fire fighting.
- Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Yellow to Red Liquid
Color	Yellow to Red
Odor	Hydrocarbon
Odor Threshold	No data available.

<u>Property</u>	<u>Values (Method)</u>
Melting Point / Freezing Point	No data available.
Initial Boiling Point / Boiling Range	154-366 °C / 310-691 °F (ASTM D86)
Flash Point	58-76 °C / 136-168 °F (ASTM D93)
Evaporation Rate	No data available.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%):	
Upper Flammability Limit:	No data available.
Lower Flammability Limit:	No data available.
Explosion limits:	No data available.
Vapor Pressure	No data available.
Vapor Density	No data available.
Specific Gravity / Relative Density	0.82-0.86
Water Solubility	No data available.
Solubility in other solvents	No data available.
Partition Coefficient	No data available.
Decomposition temperature	No data available.
pH:	Not applicable
Autoignition Temperature	No data available.
Kinematic Viscosity	1.90-3.32 cSt @ 40°C (ASTM D445)
Dynamic Viscosity	No data available.
Explosive Properties	No data available.
VOC Content (%)	No data available.
Density	No data available.
Bulk Density	Not applicable.

10. STABILITY AND REACTIVITY

- Reactivity** The product is non-reactive under normal conditions.
- Chemical stability** The material is stable at 70°F (21°C), 760 mmHg pressure.

<u>Possibility of hazardous reactions</u>	None under normal processing.
<u>Hazardous polymerization</u>	Will not occur.
<u>Conditions to avoid</u>	Excessive heat, sources of ignition, open flame.
<u>Incompatible Materials</u>	Strong oxidizing agents.
<u>Hazardous decomposition products</u>	None known under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Potential short-term adverse effects from overexposures

Inhalation	Harmful if inhaled. May cause irritation of respiratory tract. May cause drowsiness or dizziness. Breathing high concentrations of this material in a confined space or by intentional abuse can cause irregular heartbeats which can cause death.
Eye contact	Exposure to vapor or contact with liquid may cause mild eye irritation, including tearing, stinging, and redness.
Skin contact	Irritating to skin. Effects may become more serious with repeated or prolonged contact. May be absorbed through the skin in harmful amounts.
Ingestion	May be fatal if swallowed or vomited and enters airways. May cause irritation of the mouth, throat and gastrointestinal tract.

Acute toxicological data

Name	Oral LD50	Dermal LD50	Inhalation LC50
No. 2 Diesel Fuel 68476-34-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	>1 - <5 mg/L (Rat) 4 h
Kerosine (petroleum) 8008-20-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.28 mg/L (Rat) 4 h
Alkanes, C10-C20 branched and linear 928771-01-1	-	-	>1 - <5 mg/l (Rat) 4 h
Naphthalene 91-20-3	490 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 340 mg/m ³ (Rat) 1 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

MIDDLE DISTILLATES, PETROLEUM: Long-term repeated (lifetime) skin exposure to similar materials has been reported to result in an increase in skin tumors in laboratory rodents. The relevance of these findings to humans is not clear at this time. Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

MIDDLE DISTILLATES WITH CRACKED STOCKS: Light cracked distillates have been shown to be carcinogenic in animal tests and have tested positive with in vitro genotoxicity tests. Repeated dermal exposures to high concentrations in test animals resulted in reduced litter size and litter weight, and increased fetal resorptions at maternally toxic doses. Dermal exposure to high concentrations resulted in severe skin irritation with weight loss and some mortality. Inhalation exposure to high concentrations resulted in respiratory tract irritation, lung changes/infiltration/accumulation, and reduction in lung function.

ISOPARAFFINS: Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

NAPHTHALENE: Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

DIESEL EXHAUST: The combustion of diesel fuels produces gases including carbon monoxide, carbon dioxide, oxides of nitrogen and/or sulfur, and hydrocarbons that can be irritating and hazardous with overexposure. Long-term occupational overexposure to diesel exhaust and diesel exhaust particulate matter has been associated with an increased risk of respiratory disease, including lung cancer, and is characterized as a “known human carcinogen” by the International Agency for Research on Cancer (IARC), as “a reasonably anticipated human carcinogen” by the National Toxicology Program, and as “likely to be carcinogenic to humans” by the EPA, based upon animal and occupational exposure studies. However, uncertainty exists with these classifications because of deficiencies in the supporting occupational exposure/epidemiology studies, including reliable exposure estimates. Lifetime animal inhalation studies with pulmonary overloading exposure concentrations of diesel exhaust emissions have produced tumors and other adverse health effects. However, in more recent long-term animal inhalation studies of diesel exhaust emissions, no increase in tumor incidence and in fact a substantial reduction in adverse health effects along with significant reductions in the levels of hazardous material emissions were observed and are associated with fuel composition alterations coupled with new technology diesel engines.

Adverse effects related to the physical, chemical and toxicological characteristics

- Signs and Symptoms** Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking. Prolonged or repeated exposure may cause damage to organs.
- Skin corrosion/irritation** Causes skin irritation.
- Serious eye damage/eye irritation** None known.
- Sensitization** None known.
- Mutagenic effects** None known.
- Carcinogenicity** Suspected of causing cancer.

Cancer designations are listed in the table below

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
No. 2 Diesel Fuel 68476-34-6	Confirmed animal carcinogen (A3)	Not Classifiable (3)	Not Listed	Not Listed
Kerosine (petroleum) 8008-20-6	Confirmed animal carcinogen (A3)	Not Classifiable (3)	Not Listed	Not Listed
Alkanes, C10-C20 branched and linear	Not Listed	Not Listed	Not Listed	Not Listed

928771-01-1				
Naphthalene 91-20-3	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Reasonably anticipated to be a human carcinogen	Not Listed

Reproductive toxicity None known.

Specific Target Organ Toxicity (STOT) - single exposure Respiratory system. Central nervous system.

Specific Target Organ Toxicity (STOT) - repeated exposure Thymus. Liver. Bone marrow.

Aspiration hazard May be fatal if swallowed or vomited and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity This product should be considered toxic to aquatic organisms, with the potential to cause long lasting adverse effects in the aquatic environment.

Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
No. 2 Diesel Fuel 68476-34-6	-	96-hr LC50 = 35 mg/l Fathead minnow (flow-through)	-	48-hr EL50 = 6.4 mg/l Daphnia magna
Kerosine (petroleum) 8008-20-6	72-hr EL50 = 5.0-11 mg/l Algae	96-hr LL50 = 18-25 mg/l Fish	-	48-hr EL50 = 1.4-21 mg/l Invertebrates
Alkanes, C10-C20 branched and linear 928771-01-1	-	-	-	-
Naphthalene 91-20-3	-	96-hr LC50 = 0.91-2.82 mg/l Rainbow trout (static) 96-hr LC50 = 1.99 mg/l Fathead minnow (static)	-	48-hr LC50 = 1.6 mg/l Daphnia magna

Persistence and degradability Expected to be inherently biodegradable.

Bioaccumulation Has the potential to bioaccumulate.

Mobility in soil May partition into air, soil and water.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Description of Waste Residues

This material may be a flammable liquid waste.

Safe Handling of Wastes

Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required. Use appropriate grounding and bonding practices. Use only non-sparking tools. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. No smoking.

Disposal of Wastes / Methods of Disposal

The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

Methods of Contaminated Packaging Disposal

Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT (49 CFR 172.101):

UN Proper Shipping Name: Fuel Oil, No. 2
UN/Identification No: NA 1993
Class: 3
Packing Group: III

TDG (Canada):

UN Proper Shipping Name: Diesel Fuel
UN/Identification No: UN 1202
Transport Hazard Class(es): 3
Packing Group: III

15. REGULATORY INFORMATION

US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b): This product and/or its components are listed on the TSCA Chemical Inventory.

EPA Superfund Amendment & Reauthorization Act (SARA):

SARA Section 302: This product does not contain any component(s) included on EPA's Extremely Hazardous Substance (EHS) List.

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
No. 2 Diesel Fuel	NA
Kerosine (petroleum)	NA
Alkanes, C10-C20 branched and linear	NA
Naphthalene	NA

SARA Section 304: This product may contain component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	Hazardous Substances RQs
No. 2 Diesel Fuel	NA
Kerosine (petroleum)	NA
Alkanes, C10-C20 branched and linear	NA
Naphthalene	100 lb final RQ 45.4 kg final RQ

SARA Section 311/312: The following EPA hazard categories apply to this product:

- Acute Health Hazard
- Fire Hazard
- Chronic Health Hazard

SARA Section 313: This product may contain component(s), which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

Name	CERCLA/SARA 313 Emission reporting:
No. 2 Diesel Fuel	None
Kerosine (petroleum)	None
Alkanes, C10-C20 branched and linear	None
Naphthalene	0.1 % de minimis concentration

State and Community Right-To-Know Regulations:

The following component(s) of this material are identified on the regulatory lists below:

No. 2 Diesel Fuel	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 2444
Pennsylvania Right-To-Know:	Not Listed
Massachusetts Right-To Know:	Not Listed
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Not Listed
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	SN 2444 TPQ: 10000 lb (Under N.J.A.C. 7:1G, environmental hazardous substances in mixtures such as gasoline or new and used petroleum oil may be reported under these categories)
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Kerosine (petroleum)	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 1091
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Not Listed
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	SN 1091 TPQ: 10000 lb (Under N.J.A.C. 7:1G, environmental hazardous substances in mixtures such as gasoline or new and used petroleum oil may be reported under these categories)
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Alkanes, C10-C20 branched and linear	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed
Pennsylvania Right-To-Know:	Not Listed
Massachusetts Right-To Know:	Not Listed
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Not Listed
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Naphthalene	
Louisiana Right-To-Know:	Not Listed

California Proposition 65:	Carcinogen, initial date 4/19/02
New Jersey Right-To-Know:	SN 1322 SN 3758
Pennsylvania Right-To-Know:	Environmental hazard Present (particulate)
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Carcinogen
New Jersey - Environmental Hazardous Substances List:	SN 1322 TPQ: 500 lb (Reportable at the de minimis quantity of >0.1%)
Illinois - Toxic Air Contaminants:	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	100 lb RQ (air); 1 lb RQ (land/water)

Canada DSL/NDSL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

Canadian Regulatory Information: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
No. 2 Diesel Fuel	B3,D2A,D2B	0.1%
Kerosine (petroleum)	B3,D2B	1%
Alkanes, C10-C20 branched and linear	B3,D2A,D2B	0.1%
Naphthalene	B4,D2A	0.1%



Note: Not applicable.

16. OTHER INFORMATION

Prepared By Toxicology and Product Safety

Issue Date 10/31/2016

Revision Notes

Revision Date 06/01/2016

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



SAFE USE INSTRUCTION SHEET

Creation Date 05-Mar-1997

Revision Date 28-Aug-2019

Version 4

0. General Information

This Safe Use Instruction Sheet is the document provided by Owens Corning to communicate recommended safe handling and use instructions for manufactured articles neither regulated by OSHA Hazard Communication Standard, 29 CFR 1910.1200 nor by the Canada Hazardous Products Regulation SOR/2015-17 (WHMIS 2015)

1. IDENTIFICATION

Product Name	FOAMULAR®
Synonyms	FOAMULAR Cel-Lok System Extruded Polystyrene Rigid Insulation, FOAMULAR C-200 Extruded Polystyrene Rigid Insulation, FOAMULAR C-200 Cel-Drain Insulation, FOAMULAR C-300 Extruded Polystyrene Rigid Insulation, FOAMULAR CodeBord Extruded Polystyrene Rigid Insulation, FOAMULAR CodeBord Air Barrier System, FOAMULAR 400/600/1000 High Density Extruded Polystyrene Rigid Insulation, FOAMULAR F-350, System R Insulation, FOAMULAR INSULPINK Extruded Polystyrene Rigid Insulation, TermaPink, InsulPink, FlashSealR, JointSealR-Foam-J-T, ProPink ComfortSeal Sill Gasket, ProPink ComfortSeal Framing Gasket,
Product Code	OCFI00005
Recommended Use	No information available
Supplier Address	Owens Corning Canada LP 3450 McNicoll Ave Scarborough, Ontario M1V 1Z5
Manufacturer Address	Owens Corning Foam Insulation, LLC One Owens Corning Parkway Toledo, Ohio 43659
Company Phone Number	1-800-GET-PINK or 1-800-438-7465
E-mail address	safetydatasheet@owenscorning.com
Company Website	http://owenscorning.com/

2. HAZARDS IDENTIFICATION

Regulatory Status This product is considered an article. 29 CFR 1910.1200(c) definition of an article is as follows: "Article" means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees

This product is considered an article per the Canadian Hazardous Products Regulation SOR/2015-17
Manufactured articles which meet the definition of the Canadian Hazardous Products Act (any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an individual to be exposed to a hazardous product) are not regulated by the Canadian Hazardous Products

Regulation SOR/2015-17

3. COMPOSITION/INFORMATION ON INGREDIENTS

Comments There are no hazardous components/ingredients in this product

4. FIRST AID MEASURES**Description of First Aid Measures**

- | | |
|---------------------|--|
| Eye contact | <ul style="list-style-type: none">• Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes• If eye irritation persists: Get medical advice/attention |
| Skin contact | <ul style="list-style-type: none">• Wash skin with soap and water |
| Inhalation | <ul style="list-style-type: none">• Remove to fresh air |
| Ingestion | <ul style="list-style-type: none">• Accidental release of this product is unlikely• If this does occur watch person for several days to make sure intestinal blockage does not occur |

5. FIRE-FIGHTING MEASURES

- | | |
|--|---|
| Suitable extinguishing media | <ul style="list-style-type: none">• Dry chemical• Foam• Carbon dioxide (CO2)• Water spray (fog) |
| Protective equipment and precautions for firefighters | <ul style="list-style-type: none">• As in any fire, wear self-contained breathing apparatus (positive-pressure), MSHA/NIOSH (approved or equivalent) and full protective gear |

6. ACCIDENTAL RELEASE MEASURES

- | | |
|--------------------------------|--|
| Personal precautions | <ul style="list-style-type: none">• Avoid contact with eyes and skin |
| Methods for cleaning up | <ul style="list-style-type: none">• Use personal protective equipment as required• Take up mechanically, placing in appropriate containers for disposal• Clean contaminated surface thoroughly• Avoid creating dust |

7. HANDLING AND STORAGE

- | | |
|-------------------------------|--|
| Storage Conditions | <ul style="list-style-type: none">• Store in a manner which will minimize dust generation and accumulation• Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity)• To prevent build-up of flammable vapors, do not store large quantities of this product in unventilated spaces |
| Incompatible materials | <ul style="list-style-type: none">• Amines• Esters• Hydrocarbons |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region

specific regulatory bodies

Engineering Controls Ensure adequate ventilation, especially in confined areas

Individual protection measures, such as personal protective equipment

- | | |
|---------------------------------|---|
| Eye/face protection | • Wear safety glasses with side shields (or goggles) |
| Skin and body protection | • Wear protective gloves
• Wear long-sleeved shirt and long pants |
| Respiratory protection | • When workers are facing concentrations above the exposure limit they must use appropriate certified respirators in accordance with their company's respiratory protection program, local regulations or 29 CFR 1910.134 |

General Hygiene Considerations • Wash face, hands and any exposed skin thoroughly after handling

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid Board
Appearance	Board Pellets
Odor	No detectable odor
Color	Pink, White, Gray
Water solubility	Insoluble in water
Specific Gravity	0.021-0.064 (Ref: water=1)
Softening point	104 °C

10. STABILITY AND REACTIVITY

- | | |
|---|--|
| Stability | • Stable |
| Possibility of Hazardous Reactions | • None under normal processing conditions |
| Hazardous Decomposition Products | • Carbon dioxide (CO ₂)
• Carbon monoxide
• Styrene
• Small quantities of hydrogen fluoride, hydrogen chloride, fluorine and chlorine could be released
• Other undetermined compounds could be released in small quantities |

11. TOXICOLOGICAL INFORMATION

- | | |
|----------------------------|---|
| Product Information | Product does not present an acute toxicity hazard based on known or supplied information |
| Carcinogenicity | This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP |

12. ECOLOGICAL INFORMATION

This product is not expected to be hazardous for the environment

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable regional, national and local laws and regulations

14. TRANSPORT INFORMATION

This material is not subject to regulation as a hazardous material for shipping

15. REGULATORY INFORMATION

International Inventories

This product is classified as an article. Articles are exempted from registration or listing under chemicals inventories like TSCA (USA), DSL/NDSL (CAN), REACH (EU), ENCS (JP), IECSC (CN), KECL (KR), PICCS (PH), AICS (AUS)

California Proposition 65

This product does not contain any Proposition 65 chemicals

16. OTHER INFORMATION

Creation Date	05-Mar-1997
Revision Date	28-Aug-2019
Revision Note	No information available

Disclaimer

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use

End of Safe Use Instruction Sheet

PRODUCT SAFETY DATA SHEET

The product referenced in this PSDS document is a consumer product. Under OSHA regulations vapor retarder / barrier is considered an "article" and is not subject to OSHA Hazard Communication Standard MSDS/SDS requirements which apply for "hazardous chemicals in the workplace." Additionally, vapor retarder / barrier is considered an "article" under the Global Harmonized System and is exempted from the GHS labeling and SDS classification criteria.

Section 1	Product and Company Identification
------------------	---

Product Description:	Vapor Retarder / Barrier
Stock:	Various
Formula:	Various
Company:	Poly-America, LP 2000 W Marshall Drive Grand Prairie, TX 75051
Emergency Phone Number:	1-800-527-3322 ext. 7411
Notice:	This product is not FDA, CPSC or NSF compliant. It is unsuitable for use in applications such as direct or indirect food contact, toys, medical device or pharmaceutical applications or for potable water application.

Section 2	Composition/Information on Ingredients
------------------	---

	% by wt.
Polyethylene	95 -100

Section 3	Hazards Identification
------------------	-------------------------------

This product is an inert, non-hazardous solid article.

Exposure to vapors and fumes from heating the polymer to decomposition may cause eye, mucous membrane and respiratory irritation.

Vapor retarder / barrier can create a suffocation hazard when placed over the nose and mouth.

KEEP OUT OF REACH OF CHILDREN

Section 4	First Aid Measures
------------------	---------------------------

Swallowing:	No adverse effects are expected, however, if this material is swallowed call a physician or poison control center.
Skin:	No adverse effects are expected from normal contact. Molten or heated vapor retarder / barrier may cause serious burns. For contact with molten vapor retarder / barrier material, flush area with large amounts of cold water. Do not attempt to remove material that adheres to the skin. Get prompt medical attention.

Inhalation: No adverse effects are expected from normal use of this product. Breathing vapors and fumes from heating the polymer to decomposition may cause eye, mucous membrane and respiratory irritation. If exposure to decomposition of product occurs and irritation develops, remove to fresh air. If irritation persists, seek medical attention.

Eyes: No adverse effects are expected from contact but any foreign body in the eye may cause irritation. No first aid is normally needed.

Section 5	Fire Fighting Measures
------------------	-------------------------------

The flash point of this material is over 600° F. If a fire should occur, Carbon Monoxide (CO) and irritating smoke may be produced. Wear NIOSH approved self-contained breathing apparatus when fighting fires in enclosed areas. Fight fire with water, CO₂, or dry chemicals. Use flooding quantities of water until well after the fire is out.

Section 6	Accidental Release Measures
------------------	------------------------------------

Clean up material promptly to avoid a slipping hazard. As a matter of good practice; prevent material from entering storm drains, surface waters. Collect for use or disposal.

Section 7	Handling and Storage
------------------	-----------------------------

This product is normally shipped on pallets.

Store in a cool, dry area away from excessive heat

Section 8	Exposure Controls and Personal Protection
------------------	--

Ventilation: General ventilation should be adequate for normal use.

Hand Protection: None needed under normal use conditions.

Eye Protection: None needed under normal use conditions.

Respiratory Protection: None needed under normal use conditions.

Section 9	Physical and Chemical Properties
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Density will vary depending on color, and processing components. Therefore, the product can sink or float in water depending on the properties. The product is not soluble in water and is odorless at ambient temperature.

Section 10	Stability and Reactivity
-------------------	---------------------------------

This product is stable and non-reactive. Hazardous decomposition of products can occur if overheated or ignited.

Section 11	Ecological Information
-------------------	-------------------------------

No data is available at this time. This material is an inert plastic product. No adverse environmental effects are expected from normal use or disposal.

Section 12	Disposal Measures
-------------------	--------------------------

Dispose in accordance with federal, state and local regulations as ordinary trash.

Section 13	Transportation
-------------------	-----------------------

This product is not a regulated substance under the Department of Transportation (DOT) regulations.

Section 14	Regulatory Information
-------------------	-------------------------------

Notice: The information herein is presented in good faith and believed to be accurate as of the effective date shown. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyers' responsibility to ensure that its activities comply with federal, state, and local laws. The following specific information is made for purpose of complying with numerous federal, state and local law regulations. See other sections for health and safety information.

Sara 313 Information: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" (SARA Title III) and is considered, under applicable conditions to meet the following categories: Not to have met any hazard category.

Toxic Substances Control Act (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

State Right-to-Know: This product is not known to contain any substances subject to disclosure requirements of New Jersey, Pennsylvania and California.

OSHA Hazard Communication Standard: This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Section 15	Other Information
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National Fire Protection Association (NFPA) ratings:

Health - 0 Flammability - 1 Reactivity - 0

SAFETY DATA SHEET

PROSOCO, Inc.



PROSOCO
Version 1.01

Issue Date 11-Aug-2014

Revision Date 08-Jun-2015

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Consolideck® LS®

Other means of identification

Product Code 46068

Recommended use of the chemical and restrictions on use

Recommended Use Restricted to professional users.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

PROSOCO, Inc.
3741 Greenway Circle
Lawrence, Kansas 66046

Emergency telephone number

8:00 AM – 5:00 PM CST Monday-Friday 785-865-4200
NON-BUSINESS HOURS (INFOTRAC) 800-535-5053

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

Label elements

Emergency Overview

Danger

Hazard statements

Causes skin irritation
Causes serious eye damage



Appearance clear

Physical state Liquid

Odor Odorless

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse

Hazards not otherwise classified (HNOC)

Other Information

3.15001% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Water	7732-18-5	60 - 100	*
Silicic Acid, lithium salt	12627-14-4	7 - 13	*
Potassium methylsiliconate	31795-24-1	1 - 5	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice	If symptoms persist, call a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash off immediately with plenty of water. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Ingestion	Drink plenty of water. Do NOT induce vomiting. Get medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms Causes serious eye damage. Causes skin irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information. Do not allow into any sewer, on the ground or into any body of water.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling If product freezes, allow to thaw and mix well.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

Appearance	clear	Odor	Odorless
Color	colorless	Odor threshold	No information available
Property	Values	Remarks • Method	
pH	11		
Melting point/freezing point	0 °C / 32 °F		
Boiling point/boiling range	No information available		
Flash point		Not Applicable	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limits in Air			
Upper flammability limits	No information available		
Lower flammability limit	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Specific Gravity	1.10		
Water solubility	Soluble in water		
Solubility in other solvents	No information available		
Partition coefficient	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Kinematic viscosity	No information available		
Dynamic viscosity	No information available		
Explosive properties	Not an explosive		
Oxidizing properties	Not Applicable		

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong acids. Strong oxidizing agents.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Avoid contact with skin, eyes and inhalation of vapors
Inhalation	Avoid breathing vapors or mists.
Eye contact	Avoid contact with eyes. Causes serious eye damage.
Skin Contact	Avoid contact with skin. Irritating to skin.
Ingestion	Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg (Rat)	-	-

7732-18-5

Information on toxicological effects

Symptoms Causes serious eye damage. Causes skin irritation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 3.15001% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 16032 mg/kg
ATEmix (dermal) 40080 mg/kg mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity**Persistence and degradability**

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

DOT

Not Regulated for all modes of transportation.

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDSL Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 2	Flammability 0	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection X

Prepared By Regulatory Department

Issue Date 11-Aug-2014

Revision Date 08-Jun-2015

Revision Note

SDS sections updated 4 6 7 14 15

Disclaimer

The information contained on the Material Safety Data Sheet has been compiled from data considered accurate. This data is believed to be reliable, but it must be pointed out that values for certain properties are known to vary from source to source. PROSOCO, Inc. expressly disclaims any warranty express or implied as well as any liability for any injury or loss arising from the use of this information or the materials described. This data is not to be construed as absolutely complete since additional data may be desirable when particular conditions or circumstances exist. It is the responsibility

of the user to determine the best precautions necessary for the safe handling and use of this product for his unique application. This data relates only to the specific material designated and is not to be used in combination with any other material. Many federal and state regulations pertain directly or indirectly to the product's end use and disposal of containers and unused material. It is the purchaser's responsibility to familiarize himself with all applicable regulations.

End of Safety Data Sheet

SCOFIELD® Cureseal-W Concrete Curing Compound and Sealer



Revision Date 03/28/2018

Print Date 03/28/2018

1. Identification

Product name : SCOFIELD® Cureseal-W Concrete Curing Compound and Sealer

Supplier : Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
USA
www.sikausa.com

Telephone : (201) 933-8800

Telefax : (201) 804-1076

E-mail address : ehs@sika-corp.com

Emergency telephone : CHEMTREC: 800-424-9300
INTERNATIONAL: 703-527-3887

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

2. Hazards identification

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

See Section 11 for more detailed information on health effects and symptoms.

There are no hazards not otherwise classified that have been identified during the classification process.

There are no ingredients with unknown acute toxicity used in a mixture at a concentration \geq 1%.

3. Composition/information on ingredients

Hazardous ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

SCOFIELD® Cureseal-W Concrete Curing Compound and Sealer



Revision Date 03/28/2018

Print Date 03/28/2018

If inhaled	: Move to fresh air.
In case of skin contact	: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.
In case of eye contact	: Flush eyes with water as a precaution. Remove contact lenses. Keep eye wide open while rinsing.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	: No known significant effects or hazards. See Section 11 for more detailed information on health effects and symptoms.
Protection of first-aiders	: No hazards which require special first aid measures.
Notes to physician	: Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific extinguishing methods	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	: In the event of fire, wear self-contained breathing apparatus.

6. Accidental release measures

Environmental precautions	: Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	: Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

7. Handling and storage

Advice on safe handling	: For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handling chemical products.
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SCOFIELD® Cureseal-W Concrete Curing Compound and Sealer



Revision Date 03/28/2018

Print Date 03/28/2018

- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Store in accordance with local regulations.
- Materials to avoid : No data available

8. Exposure controls/personal protection

Contains no substances with occupational exposure limit values.

- Engineering measures** : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective equipment

- Respiratory protection : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
- Hand protection
Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Hygiene measures : Wash hands before breaks and immediately after handling the product.
Remove contaminated clothing and protective equipment before entering eating areas.

9. Physical and chemical properties

- Appearance : liquid

SCOFIELD® Cureseal-W Concrete Curing Compound and Sealer

Revision Date 03/28/2018

Print Date 03/28/2018

Color	: white
Odor	: slight
Odor Threshold	: No data available
Flash point	: > 235 °F (> 113 °C)
Ignition temperature	: No data available
Decomposition temperature	: No data available
Lower explosion limit (Vol%)	: No data available
Upper explosion limit (Vol%)	: No data available
Flammability (solid, gas)	: No data available
Oxidizing properties	: No data available
pH	: 8 - 10 at 68 °F (20 °C)
Melting point/freezing point	: ca. 32 °F (0 °C)
Boiling point/boiling range	: ca. 212 °F (100 °C)
Vapor pressure	: 17 mmHg (23 hpa)
Density	: 1.02 - 1.05 g/cm ³ at 73 °F (23 °C)
Water solubility	: Note: partly soluble
Partition coefficient: n-octanol/water	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm ² /s at 104 °F (40 °C)
Relative vapor density	: No data available
Evaporation rate	: No data available
Burning rate	: No data available
Volatile organic compounds (VOC) content	: 96.07 g/l

10. Stability and reactivity

Reactivity	: No dangerous reaction known under conditions of normal use.
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SCOFIELD® Cureseal-W Concrete Curing Compound and Sealer



Revision Date 03/28/2018

Print Date 03/28/2018

Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Stable under recommended storage conditions.
Conditions to avoid	: No data available
Incompatible materials	: No data available

11. Toxicological information

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC Not applicable

NTP Not applicable

12. Ecological information

Other information	Do not empty into drains; dispose of this material and its container in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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SCOFIELD® Cureseal-W Concrete Curing Compound and Sealer



Revision Date 03/28/2018

Print Date 03/28/2018

13. Disposal considerations

Disposal methods

- Waste from residues : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

Special precautions for user

No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. Regulatory information

- TSCA list** : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA304 Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

- SARA 311/312 Hazards** : No SARA Hazards

SCOFIELD® Cureseal-W Concrete Curing Compound and Sealer



Revision Date 03/28/2018

Print Date 03/28/2018

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

Ozone-Depletion Potential This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
 This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

California Prop 65  **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

16. Other information

HMIS Classification

Health	/	1
Flammability		1
Physical Hazard		0
Personal Protection		X

Caution: HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

Notes to Reader

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

SIKA MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO LIABILITY ARISING FROM THIS INFORMATION OR ITS USE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT

**SCOFIELD® Cureseal-W Concrete Curing Compound and
Sealer**



Revision Date 03/28/2018

Print Date 03/28/2018

BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

All sales of Sika products are subject to its current terms and conditions of sale available at www.sikausa.com or 201-933-8800.

Revision Date 03/28/2018

Material number: 540984



1. Identification

Product name : SCOFIELD® Integral Color SG

Supplier : Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
USA
www.sikausa.com

Telephone : (201) 933-8800

Telefax : (201) 804-1076

E-mail address : ehs@sika-corp.com

Emergency telephone : CHEMTREC: 800-424-9300
INTERNATIONAL: 703-527-3887


Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

2. Hazards identification

GHS Classification

Eye irritation, Category 2A	H319: Causes serious eye irritation.
Carcinogenicity, Category 1A (Inhalation)	H350i: May cause cancer by inhalation.
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ systemic toxicity - repeated exposure, Category 1, Lungs	H372: Causes damage to organs through prolonged or repeated exposure.

GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H350i May cause cancer by inhalation.
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read



and understood.

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear eye protection/ face protection.

P281 Use personal protective equipment as required.

Response:

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

See Section 11 for more detailed information on health effects and symptoms.

There are no hazards not otherwise classified that have been identified during the classification process.

There are no ingredients with unknown acute toxicity used in a mixture at a concentration $\geq 1\%$.

3. Composition/information on ingredients

Hazardous ingredients

Chemical name	CAS-No.	Concentration (%)
Pozzolans, coal-ash	71243-67-9	$\geq 25 - < 50$ %
Quartz (SiO ₂) <5µm	14808-60-7	$\geq 2 - < 5$ %
calcium oxide	1305-78-8	$\geq 1 - < 2$ %
titanium dioxide	13463-67-7	< 1 %

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

If inhaled : Move to fresh air.
Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.



- | | |
|---|---|
| In case of eye contact | : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist. |
| If swallowed | : Clean mouth with water and drink afterwards plenty of water.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | : irritant effects
carcinogenic effects

Prolonged exposure can cause silicosis.

Cough
Respiratory disorder
Excessive lachrymation
See Section 11 for more detailed information on health effects and symptoms.

Causes serious eye irritation.
May cause respiratory irritation.
May cause cancer by inhalation.
Causes damage to organs through prolonged or repeated exposure. |
| Protection of first-aiders | : Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance. |
| Notes to physician | : Treat symptomatically. |

5. Fire-fighting measures

- | | |
|--|---|
| Suitable extinguishing media | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Specific extinguishing methods | : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| Special protective equipment for fire-fighters | : In the event of fire, wear self-contained breathing apparatus. |

6. Accidental release measures

- | | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment.
Avoid breathing dust.
Deny access to unprotected persons. |
|---|--|



- Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. Handling and storage

- Advice on safe handling : Avoid formation of respirable particles. Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Follow standard hygiene measures when handling chemical products.
- Conditions for safe storage : Prevent unauthorized access. Store in original container. Keep in a well-ventilated place. Observe label precautions. Store in accordance with local regulations.
- Materials to avoid : No data available

8. Exposure controls/personal protection

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
diiron trioxide	1309-37-1	ACGIH	TWA	5 mg/m3 Respirable fraction
		OSHA P0	TWA	10 mg/m3
		OSHA Z-1	TWA	10 mg/m3 Fumes
		OSHA Z-1	TWA	15 mg/m3 total dust
		OSHA Z-1	TWA	5 mg/m3 respirable fraction
		OSHA P0	TWA	10 mg/m3 Fumes
		NIOSH REL	TWA	5 mg/m3 dust and fume
		CAL PEL	PEL	10 mg/m3



				Total dust
		CAL PEL	PEL	5 mg/m3 respirable dust fraction
		CAL PEL	PEL	5 mg/m3 Fumes
C.I. PIGMENT GREEN 17	1308-38-9	OSHA Z-1	TWA	0.5 mg/m3
		ACGIH	TWA	0.5 mg/m3
		OSHA P0	TWA	1 mg/m3
		OSHA Z-1	TWA	1 mg/m3
		OSHA Z-1	TWA	1 mg/m3
Quartz (SiO ₂) <5µm	14808-60-7	OSHA Z-3	TWA	10 mg/m3 / %SiO ₂ +2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO ₂ +5 respirable
		OSHA P0	TWA	0.1 mg/m3 Respirable fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m3 Respirable dust
calcium oxide	1305-78-8	ACGIH	TWA	2 mg/m3
		OSHA Z-1	TWA	5 mg/m3
		OSHA P0	TWA	5 mg/m3
		NIOSH REL	TWA	2 mg/m3
		CAL PEL	PEL	2 mg/m3
titanium dioxide	13463-67-7	OSHA Z-1	TWA	15 mg/m3 total dust
		OSHA P0	TWA	10 mg/m3 Total dust
		ACGIH	TWA	10 mg/m3



		ACGIH	TWA	10 mg/m3
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*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

****Basis**

- ACGIH. Threshold Limit Values (TLV)
- OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values)
- OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant
- OSHA P2. Permissible Exposure Limits (PEL), Table Z-2
- OSHA Z3. Table Z-3, Mineral Dust

Engineering measures : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective equipment

- Respiratory protection** : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
- The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
- Hand protection**
Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
- Skin and body protection** : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Hygiene measures** : Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.
Remove contaminated clothing and protective equipment before entering eating areas.
Avoid breathing dust.

**9. Physical and chemical properties**

Appearance	: powder
Color	: various
Odor	: odorless
Odor Threshold	: No data available
Flash point	: Note: Not applicable
Ignition temperature	: No data available
Decomposition temperature	: No data available
Lower explosion limit (Vol%)	: No data available
Upper explosion limit (Vol%)	: No data available
Flammability (solid, gas)	: No data available
Oxidizing properties	: No data available
pH	: Note: Not applicable
Melting point/freezing point	: Note: Not applicable
Boiling point/boiling range	: Note: Not applicable
Vapor pressure	: No data available
Density	: 2.8 - 4.5 g/cm ³ at 73 °F (23 °C)
Water solubility	: Note: slightly soluble
Partition coefficient: n- octanol/water	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: Note: Not applicable
Relative vapor density	: No data available
Evaporation rate	: No data available
Burning rate	: No data available
Volatile organic compounds (VOC) content	: Not applicable

10. Stability and reactivity

Reactivity	: No dangerous reaction known under conditions of normal use.
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Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Stable under recommended storage conditions.
Conditions to avoid	: No data available
Incompatible materials	: No data available

11. Toxicological information

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

Causes damage to organs (Lungs) through prolonged or repeated exposure.
Prolonged exposure can cause silicosis.

Aspiration toxicity

Not classified based on available information.

Carcinogenicity

May cause cancer by inhalation.

IARC	Group 1: Carcinogenic to humans	
	Quartz (SiO ₂) <5µm	14808-60-7
NTP	Group 2B: Possibly carcinogenic to humans	
	titanium dioxide	13463-67-7
	Known to be human carcinogen	
	Quartz (SiO ₂) <5µm	14808-60-7
Titanium dioxide (13463-67-7)		

In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have been shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these



adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that cause lung cancer. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

12. Ecological information

Other information	Do not empty into drains; dispose of this material and its container in a safe way.
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13. Disposal considerations

Disposal methods

Waste from residues	: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Contaminated packaging	: Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

Special precautions for user

No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. Regulatory information

TSCA list	: All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory
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exemption.

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA304 Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Carcinogenicity
 Specific target organ toxicity (single or repeated exposure)
 Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:
 C.I. PIGMENT GREEN 17 1308-38-9 >= 5 - < 10 %

Clean Air Act

Ozone-Depletion Potential This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

C.I. PIGMENT GREEN 17 1308-38-9 >= 5 - < 10 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

California Prop 65  **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

16. Other information

HMIS Classification

Health	*	3
Flammability		0
Physical Hazard		0
Personal Protection	X	

Caution: HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating

SCOFIELD® Integral Color SG



Revision Date 02/20/2018

Print Date 02/27/2018

is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

Notes to Reader

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

SIKA MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO LIABILITY ARISING FROM THIS INFORMATION OR ITS USE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

All sales of Sika products are subject to its current terms and conditions of sale available at www.sikausa.com or 201-933-8800.

Revision Date 02/20/2018

Material number: 561299



1. Identification

Product name	:	LITHOTEX® Liquid Release
Supplier	:	Sika Corporation 201 Polito Avenue Lyndhurst, NJ 07071 USA www.sikausa.com
Telephone	:	(201) 933-8800
Telefax	:	(201) 804-1076
E-mail address	:	ehs@sika-corp.com
Emergency telephone	:	CHEMTREC: 800-424-9300 INTERNATIONAL: 703-527-3887
Recommended use of the chemical and restrictions on use	:	For further information, refer to product data sheet.

2. Hazards identification

GHS Classification

Flammable liquids, Category 4 H227: Combustible liquid.

GHS label elements

Signal Word	:	Warning
Hazard Statements	:	H227 Combustible liquid.
Precautionary Statements	:	Prevention: P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. Response: P370 + P378 In case of fire: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment for extinction. Storage: P403 + P235 Store in a well-ventilated place. Keep cool.
Warning	:	Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

See Section 11 for more detailed information on health effects and symptoms.



There are no hazards not otherwise classified that have been identified during the classification process.

There are no ingredients with unknown acute toxicity used in a mixture at a concentration $\geq 1\%$.

3. Composition/information on ingredients

Hazardous ingredients

Chemical name	CAS-No.	Concentration (%)
Naphtha (petroleum), hydrotreated heavy	64742-48-9	$\geq 50 - < 100\%$

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

If inhaled	: Move to fresh air.
In case of skin contact	: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.
In case of eye contact	: Flush eyes with water as a precaution. Remove contact lenses. Keep eye wide open while rinsing.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	: No known significant effects or hazards. See Section 11 for more detailed information on health effects and symptoms.
Protection of first-aiders	: No hazards which require special first aid measures.
Notes to physician	: Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	: Carbon dioxide (CO ₂)
Unsuitable extinguishing media	: Water
Specific extinguishing methods	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must



be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

6. Accidental release measures

Environmental precautions : Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
Keep in suitable, closed containers for disposal.

7. Handling and storage

Advice on safe handling : Do not breathe vapors or spray mist.
For personal protection see section 8.
No special handling advice required.
Follow standard hygiene measures when handling chemical products.

Conditions for safe storage : Store in original container.
Keep in a well-ventilated place.
Observe label precautions.
Store in accordance with local regulations.

Materials to avoid : No data available

8. Exposure controls/personal protection

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Naphtha (petroleum), hydrotreated heavy	64742-48-9	OSHA Z-1	TWA	500 ppm 2,000 mg/m3
		OSHA P0	TWA	400 ppm 1,600 mg/m3

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

****Basis**

- ACGIH. Threshold Limit Values (TLV)
- OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values)
- OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant
- OSHA P2. Permissible Exposure Limits (PEL), Table Z-2
- OSHA Z3. Table Z-3, Mineral Dust

Engineering measures : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this



product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

Personal protective equipment

- Respiratory protection : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
- The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
- Hand protection
Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Hygiene measures : Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.
Remove respiratory and skin/eye protection only after vapors have been cleared from the area.
Remove contaminated clothing and protective equipment before entering eating areas.

9. Physical and chemical properties

- Appearance : liquid
- Color : clear
- Odor : slight
- Odor Threshold : No data available
- Flash point : ca. 144.00 °F (62.22 °C)
- Ignition temperature : No data available
- Decomposition temperature : No data available



Lower explosion limit	: 0 %(V)
Upper explosion limit	: 5.3 %(V)
Flammability (solid, gas)	: No data available
Oxidizing properties	: No data available
pH	: No data available
Melting point/freezing point	: ca. -67 °F (-55 °C)
Boiling point/boiling range	: 383 - 412 °F (195 - 211 °C)
Vapor pressure	: 2 mmHg (3 hpa)
Density	: 0.76 - 0.9 g/cm ³ at 73 °F (23 °C)
Water solubility	: Note: insoluble
Partition coefficient: n- octanol/water	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm ² /s at 104 °F (40 °C)
Relative vapor density	: No data available
Evaporation rate	: No data available
Burning rate	: No data available
Volatile organic compounds (VOC) content	: 765.71 g/l

10. Stability and reactivity

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Stable under recommended storage conditions.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: No data available

11. Toxicological information**Acute toxicity**



Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

Aspiration toxicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC Not applicable

NTP Not applicable

12. Ecological information

Other information	Do not empty into drains; dispose of this material and its container in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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13. Disposal considerations

Disposal methods

Waste from residues	: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
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Contaminated packaging	: Empty containers should be taken to an approved waste handling site for recycling or disposal.
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14. Transport information

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

Special precautions for user

No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. Regulatory information

TSCA list : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA304 Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

Ozone-Depletion Potential

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

LITHOTEX® Liquid Release



Revision Date 03/27/2018

Print Date 03/27/2018

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

16. Other information

HMIS Classification

Health	/	1
Flammability		2
Physical Hazard		0
Personal Protection		X

Caution: HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

Notes to Reader

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

SIKA MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO LIABILITY ARISING FROM THIS INFORMATION OR ITS USE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

All sales of Sika products are subject to its current terms and conditions of sale available at www.sikausa.com or 201-933-8800.

Revision Date 03/27/2018

Material number: 545000

1. Identification

Product Identification

Product Identifier: AT-XP[®] (AT-XP10, AT-XP13, AT-XP30)
Recommended Use: Two Component High Strength Acrylic-Based Anchoring Adhesive
Use Restrictions: None Known.

Company Identification

Company: Simpson Strong-Tie Company Inc.
Address: 5956 W. Las Positas Blvd.
 Pleasanton, CA 94588
Phone: 1-800-999-5099
Website: www.strongtie.com
Emergency: 1-800-535-5053 (US/Canada)
 1-352-323-3500 (International)

For most current SDS, please visit our website at www.strongtie.com/sds

2. Hazard Identification

General Information

AT-XP[®] Anchoring Adhesive is a two part system. The two parts of this product have been assessed according to GHS and are classified below. The final hardened material is considered nonhazardous. Some hazards apply upon grinding or cutting through hardened product.

Resin (teal side) GHS Classification



Physical Hazards:	Not Classified.	
Health Hazards	Skin Corrosion/Irritation	Category 2
	Serious Eye Damage/Irritation	Category 2A
	Sensitization, Skin	Category 1
Environmental Hazards:	Not Classified.	
Signal Word:	WARNING!	
Hazard Statements:	Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.	
Precautionary Statements:		
Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Do not breathe mist or vapor. Wash hands thoroughly after handling.	
Response:	If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If eye irritation persists: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
Storage:	Store locked up. Store in a well-ventilated place. Store between 32-80°F (0-27°C).	
Disposal:	Dispose of contents/container in accordance with local/regional/national regulations.	

Initiator (white or tan side) GHS Classification



Physical Hazards:	Flammable Liquids	Category 4
Health Hazards	Serious Eye Damage/Irritation	Category 2A
	Sensitization, Skin	Category 1

AT-XP[®] Anchoring Adhesive

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Environmental Hazards: Acute Aquatic Environment Hazard Category 1
Chronic Aquatic Environment Hazard Category 1

Signal Word: **WARNING!**
Hazard Statements: Combustible liquid. Causes serious eye irritation. May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from flames and hot surfaces. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Contaminated clothing must not be allowed out of the workplace. Avoid release to the environment.

Response: In case of fire: Use appropriate media for extinction. If exposed or concerned: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage: Store locked up. Store in a well-ventilated place. Store between 32-80°F (0-27°C).

Disposal: Dispose of contents/container in accordance with local/regional/national regulations.

Hazards Not Otherwise Classified (HNOC)

The above hazards are for the uncured components of AT-XP. Upon combination an innocuous solid is formed which does not present any immediate hazards. Upon grinding or cutting the cured product the following hazards may apply.



Health Hazard: Carcinogenicity Category 1A
STOT, Repeated Exposure Category 2 (Lung)
Hazard Statements: May cause cancer. May cause damage to organs through prolonged or repeated exposure.
Precautionary Statements: Do not breathe dust.

3. Composition Information

General Information

This product is a mixture. Hazardous ingredients for each component are listed below. May include other nonhazardous ingredients. May include other trace ingredients, see Section 15.

Resin (teal side)

Chemical Name	CAS Number	Weight %
Portland Cement	65997-15-1	20-30
Calcined Clay	66402-68-4	10-20
Ethoxylated Bisphenol-A Dimethacrylate	41637-38-1	10-20
Propylidynetimethyl Trimethyl Trimethacrylate	3290-92-4	10-20
Crystalline Silica, Quartz	14808-60-7	1-5
Tetrahydrofurfuryl methacrylate	2455-24-5	5-10

Initiator (white or tan side)

Chemical Name	CAS Number	Weight %
Dibenzoyl Peroxide	94-36-0	10-15
White Mineral Oil (petroleum)	8042-47-5	10-15
Titanium Dioxide	13463-67-7	5-10
Kaolin	1332-58-7	1-5
Silicon Dioxide	7631-86-9	1-5

4. First-Aid Measures

General Information

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

Routes of Exposure

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. Remove contact lenses if present and easy to do. If redness, burning, blurred vision, or swelling persists, **consult a physician.**

Skin Contact: Remove contaminated clothing and product, immediately wash affected area with soap and water. If redness, burning, or swelling persists, **consult a physician.**

Ingestion: Rinse mouth immediately. Do not induce vomiting. **Consult a physician.**

Inhalation: Remove patient to fresh air. Give oxygen or artificial respiration if needed. If patient continues to experience difficulty breathing, **consult a physician.**

Most Important Symptoms

Irritant effects. Rash. Sensitization. Prolonged exposure may cause chronic effects.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Extinguish with foam, carbon dioxide, dry powder, or water fog.

Additional Information: Do not use water jet as an extinguisher as this will spread the fire.

Hazards during Fire-Fighting: Irritating and toxic gases/fumes may be released during a fire. May re-ignite after fire is extinguished. Sealed containers may rupture when heated.

Fire-Fighting Procedures: Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. Accidental Release Measures

Personal Precautions

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Clean-Up Methods

Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Place in leak-proof containers. Seal tightly. Clean surface thoroughly to remove residual contamination.

Large spills: Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product. Place in leak-proof containers. Seal tightly for proper disposal. Following product recovery, flush area with water.

Environmental Precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so.

7. Handling and Storage

Handling

Keep away from open flame, hot surfaces, and sources of ignition. Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. When using not drink, eat, or smoke. Use only in well-ventilated places. Wash thoroughly after handling. Observe good industrial hygiene practices.

Storage

Store in a closed container away from incompatible materials. Keep in original container. Keep container tightly closed. Store in a dry place out of direct sunlight. Store between 32-80°F (0-27°C). Keep away from heat and sources of ignition. Store in a well-ventilated place. Store locked up. Protect container from physical damage.

8. Exposure Controls / Personal Protection

Personal Protective Equipment

- General Protection:** Wear appropriate personal protective equipment.
- Eye Protection:** Wear chemical splash goggles or safety glasses with side shield.
- Hand Protection:** Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.
- Skin and Body Protection:** Wear long sleeved shirts/long pants and other clothing as required to minimize contact. Avoid contact with unhardened Portland Cement products. If contact occurs, wash immediately with soap and water.
- Respirator Protection:** The use of a respirator is not required during regular use of this product. An NIOSH or MSHA approved respirator should be worn whenever workplace conditions warrant respirator use or when grinding or cutting cured product.
- General Hygiene:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Engineering Controls

When using indoors good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Ready access to running water is required. Provide eyewash station.

Exposure Limits

Component	OSHA (PEL)	ACGIH (TLV)	NIOSH Pocket Guide
Portland Cement (65997-15-1)	5 mg/m ³ (Respirable) 15 mg/m ³ (Total dust)	1 mg/m ³ (TWA, respirable)	N/E
Quartz** (14808-60-7)	0.3 mg/m ³ (total dust) 0.1 mg/m ³ (respirable)	0.025 mg/m ³ (respirable)	N/E
Propylidynetrimethyl Trimethacrylate (3290-92-4)*	N/E	N/E	1 mg/m ³ (TWA)
Dibenzoyl Peroxide (94-36-0)	5 mg/m ³	5 mg/m ³	5 mg/m ³
Kaolin* (1332-58-7)	5 mg/m ³ (respirable) 15 mg/m ³ (total dust)	2 mg/m ³ (respirable)	5 mg/m ³ (respirable) 10 mg/m ³ (total)
Titanium Dioxide* (13463-67-7)	5 mg/m ³ (respirable) 15 mg/m ³ (total dust)	10 mg/m ³	N/E
Silicon Dioxide* (7631-86-9)	0.8 mg/m ³	N/E	6 mg/m ³
White Mineral Oil, petroleum (8042-47-5)	5 mg/m ³ (mist)	N/E	5 mg/m ³ (TWA, mist) 10 mg/m ³ (STEL, mist)

*Skin Designation: Material can be adsorbed through the skin

**after cure hazard, avoid breathing dust.

Additional Information

- After Cure:** Product forms an innocuous solid. Processing after cure (grinding or cutting) may produce dust containing compounds that present an inhalation hazard.

9. Physical and Chemical Properties

<u>Property</u>	<u>Resin</u>	<u>Initiator</u>
Physical State:	Liquid, Paste	Liquid, Paste
Color:	Teal	White or Tan
Odor:	No Significant Odor	No Significant Odor
pH:	No data	No data
Flammability limit – lower %:	No data	No data
Flammability limit – upper %:	No data	No data
Vapor Pressure:	No data	No data

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Vapor Density:	No data	No data
Solubility:	Slight	Miscible
Freezing/Melting Point:	No data	No data
Boiling Point:	No data	No data
Flash Point:	>200 °F (>93.3 °C) Closed Cup	159 °F (70.6 °C) Closed Cup
Evaporation Rate:	No data	No data
Decomposition Temperature:	No data	122°F (50°C) (SADT)
Specific Gravity:	No data	1.58
VOC (after cure):	30 g/L	30 g/L
Kow:	No data	No data
Viscosity:	No data	No data
Corrosiveness:	Non-corrosive	Non-corrosive

10. Stability and Reactivity

Resin (teal side)

Reactivity:	Oxidizing, avoid contact with reducing agents.
Chemical Stability:	Stable under normal storage conditions.
Condition to Avoid:	Heat, sparks, flame, elevated temperatures.
Substances to Avoid:	Oxidizing and reducing agents.
Hazardous Reactions:	The product is stable if stored and handled as prescribed/indicated. Hazardous polymerization can occur with excessive heat.
Decomposition Products:	Carbon dioxide, carbon monoxide, oxides of nitrogen, and other organic compounds.

Initiator (white or tan side)

Reactivity:	This product is stable and non-reactive under normal conditions.
Chemical Stability:	Stable under normal storage conditions.
Condition to Avoid:	Avoid conditions over 113°F (45°C).
Substances to Avoid:	Rust, iron, copper. Hazardous decomposition will occur when in contact with acids, alkalies, heavy metal, reducing agents, and peroxide accelerators.
Hazardous Reactions:	The product is stable if stored and handled as prescribed/indicated.
Decomposition Products:	Benzoic acid. Benzene. Biphenyl. Phenyl Benzoate.

11. Toxicological Information

Likely Routes of Exposure

Ingestion:	Ingestion may cause irritation to the gastrointestinal tract.
Inhalation:	This material is a viscous liquid to semi-solid that does not easily form vapors. Inhalation of dust from grinding/cutting cured product may irritate the respiratory tract.
Skin contact:	Causes skin irritation.
Eye contact:	Causes serious eye irritation.

Information on Toxicological Effects

Acute toxicity: Occupational exposure to the substance or mixture may cause adverse effects.

Product	Species	Test Result
AT-XP Resin (CAS mixture)	Acute, Dermal, LC50	Rabbit >1000 mg/kg
	Acute, Oral, LD50	Rat >5000 mg/kg
AT-XP Initiator (CAS mixture)	Acute, Dermal, LC50	Rabbit >1000 mg/kg
	Acute, Oral, LD50	Rat >5000 mg/kg

Skin corrosion/irritation:	Causes skin irritation.
Eye damage/eye irritation:	Causes serious eye irritation.
Respiratory sensitization:	No data available.
Skin sensitization:	May cause an allergic skin reaction.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	May cause cancer. Both components of this product contain ingredients that are listed carcinogens. Quartz and Titanium Dioxide are considered carcinogens only in their inhalable form. Due to the nature of this product inhalation is highly unlikely.

Exposure to respirable Quartz and Titanium Dioxide is likely only when grinding or cutting cured product, ensure good work practice and use of personal protective equipment as needed to control exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Quartz (14808-60-7) 1 Carcinogenic to humans.
 Titanium Dioxide (13463-67-7) 2B Possibly Carcinogenic to humans.
 Iron Oxide (1309-37-1) 3 Not classifiable as to carcinogenicity to humans.
 Dibenzoyl Peroxide (94-36-0) 3 Not classifiable as to carcinogenicity to humans.
 Silicon Dioxide (7631-86-9) 3 Not classifiable as to carcinogenicity to humans.

NTP Report on Carcinogens

Quartz (14808-60-7) Known to be Human Carcinogen.
 No data available.
 Due to the physical form of this product it is not an aspiration hazard.

Reproductive toxicity:

Aspiration hazard:

Specific target organ toxicity:

Single exposure

Repeated exposure

No data available.

May cause damage to organs (Lung) through prolonged or repeated exposure.

Further Information

Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with certain pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material.

12. Ecological Information

General Information

Information given is based on the components and the ecotoxicity of similar products. Resin is not classified as environmentally hazardous. Initiator is classified as very toxic to aquatic life with long lasting effects. Avoid release to the environment.

Supporting Data

Component	Species	Test Result
Tetrahydrofurfuryl Methacrylate (2455-24-5) Aquatic, Fish, LC50	Fathead minnow	31.1-38.8 mg/l, 96 hours
Dibenzoyl Peroxide (94-36-0) Aquatic Acute, Algae, LC50	Pseudokirchnerella subcapitata	0.0711 mg/l, 72 hours
Aquatic Acute, Crustacea, EC50	Daphnia magna	0.11 mg/l, 48 hours
Aquatic Acute, Fish, EC50	Oncorhynchus mykiss	0.0602 mg/l, 96 hours

Persistence and degradability:

No data available.

Bioaccumulative potential:

No data available for this product.

Partition coefficient n-octanol / water (log Kow)

Dibenzoyl Peroxide (94-36-0) 3.46

Ethoxylated Bisphenol-A Dimethacrylate 5.3 - 5.62

Mobility in soil:

No data available.

Further Information

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Consideration

Waste Disposal of Substance:

Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Container Disposal:

Empty containers or liners may retain some product residues; follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal of Cured Substance:

Grind or chip off surface. Solid material does not need special disposal consideration.

14. Transportation Information

Resin (teal side)

Resin is not regulated as a dangerous good for transportation.

Hardener (white or tan side)

UN number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Standard Dibenzoyl Peroxide), 9, III, Marine Pollutant
Precautions: Marine Pollutant
Required Labels: 9
ERG Code (IATA): 9L
EmS (IMDG): F-A, S-F

Additional Information

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
 This substance/mixture is not intended to be transported in bulk.

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. Regulatory Information

United States

Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.
CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories:	Immediate	Delayed	Fire	Pressure	Reactivity
Resin	Yes	Yes	No	No	No
Initiator	Yes	Yes	Yes	No	No

SARA 302 Extremely hazardous substance: No
SARA 311/312 Hazardous chemical: Yes
SARA 313 (TRI reporting)

Chemical Name	CAS Number	% by weight
Dibenzoyl Peroxide	94-36-0	10-15

US. California Proposition 65 WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or reproductive harm.

Component	Regulation	% In Blend (approx.)	Remark
Quartz (14808-60-7)	ACGIH	10-20	Carcinogenic
Titanium Dioxide (13463-67-7)	ACGIH	5-10	Carcinogenic
Carbon Black (1333-86-4)	ACGIH	< 0.1	Carcinogenic

US State Right-To-Know Lists

Chemical	Massachusetts RTK	New Jersey Work and Community RTK Act	Pennsylvania Worker and Community RTK Law	Rhode Island RTK
Portland Cement (CAS 65997-15-1)	Listed		Listed	
Quartz (CAS 14808-60-7)	Listed		Listed	

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Dibenzoyl Peroxide (CAS 94-36-0)	Listed	Listed	Listed	Listed
Kaolin (CAS 1332-58-7)	Listed		Listed	
Silicon Dioxide (CAS 7631-86-9)	Listed		Listed	
Titanium Dioxide (CAS 13463-67-7)	Listed		Listed	
White Mineral Oil (CAS 8042-47-5)	Listed		Listed	

Canada

This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

WHMIS Classification

	
Class B-3: Combustible Liquid	Class D-2B: Material Causing other toxic effects

International

International Inventories

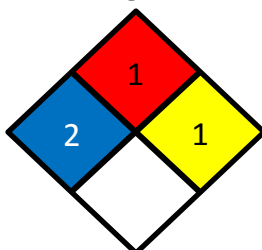
Country or Region	Inventory	On Inventory? (Yes/No)
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)/ Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

16. Other Information

Date Prepared or Revised: September 2014
Supersedes: March 2012

Additional Resin (teal side) Classifications

NFPA Ratings



HMIS Rating

HEALTH HAZARD	2
FLAMMABILITY HAZARD	1
PHYSICAL HAZARD	1
PERSONAL PROTECTION	B

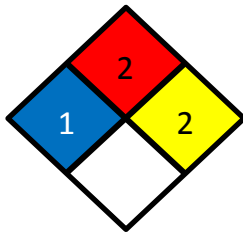
AT-XP[®] Anchoring Adhesive

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Additional Initiator (white or tan side) Classifications

NFPA Ratings



HMIS Rating

HEALTH HAZARD	1
FLAMMABILITY HAZARD	2
PHYSICAL HAZARD	2
PERSONAL PROTECTION	B

Abbreviations

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No.:	Chemical Abstract Service Registry Number
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)
CPR:	Controlled Product Regulations (Canada)
DOT:	Department of Transportation (U.S.)
EPA:	Environmental Protection Agency (U.S.)
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
HEPA:	High-Efficiency Particulate Air
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods code
NIOSH:	National Institute of Occupational Safety and Health (U.S.)
NFPA:	National Fire Protection Association (US)
NTP:	National Toxicology Program (US)
OSHA:	Occupational Safety and Health Administration (U.S.)
PEL:	Permissible Exposure Limit
SARA:	Superfund Amendments and Reauthorization Act (U.S. EPA)
SDS:	Safety Data Sheet
STEL:	Short Term Exposure Limit (15 minute Time Weighted Average)
STOT:	Specific Target Organ Toxicity (GHS Classification)
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act (U.S.)
TWA:	Time Weighted Average (exposure for 8-hour workday)
U.S.:	United States
VOC:	Volatile Organic Compounds
WHMIS:	Canadian Workplace Hazardous Materials Information System

Disclaimer

This Safety Data Sheet (SDS) is prepared by Simpson Strong-Tie Co. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this SDS. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

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Internal

FOR INTERNAL USE ONLY

AT-XP Resin:	AT-XP Hardener:
XCOM3B – 90% Cartridge	XCOM3A – 10% Cartridge

SC Multipurpose Grout

Version 1

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name (as labeled):	SC Multipurpose Grout
Synonyms:	N/A
CAS No:	Mixture
1.2 Product Use:	Multi-purpose grout
1.3 Company Name:	SpecChem
Company Address:	1511 Baltimore Ave; Suite 600
Company Address Cont:	Kansas City, MO 64108
Business Phone:	(816) 968-5600
Website:	www.specchemllc.com
1.4 Emergency Telephone Number:	Chemtrec: (800) 424-9300
Date of Current Revision:	February 1, 2015
Date of Last Revision:	May 17, 2012

SECTION 2 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This product is a gray powder with minimal odor.

Health Hazards: May cause skin and respiratory irritation and burns to the eyes. Contact with skin may cause an allergic reaction. Repeated exposure may cause damage to the lungs. Contains components that are defined as human carcinogens.

Flammability Hazards: This product is not considered flammable.

Reactivity Hazards: None.

Environmental Hazards: The environmental effects of this product have not been investigated, however release may cause long term adverse environmental effects.

US DOT Symbols Not Regulated



EU and GHS Symbols

Signal Word Danger

2.1 EU Labeling and Classification:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:

Index Number:

266-043-4 is not listed in Annex I
 CAS 26499-65-0 is not listed in ESIS
 215-279-6 is not listed in Annex I
 CAS 93763-70-3 is not listed in ESIS
 215-138-9 is not listed in Annex I
 215-168-2 is not listed in Annex I

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202-049-5 index number is 601-052-00-2

Substances not listed either individually or in group entries must be self classified.

Components Contributing to Classification:

Portland Cement, Plaster of Paris, Limestone, Perlite, Calcium Oxide, Diiron Trioxide, Naphthalene

2.2 Label Elements:

GHS Hazard Classifications:

Carcinogenicity Category 2
STOT – SE Category 3 (Respiratory System)
Skin Irritation Category 2
Skin Sensitization Category 1
Eye Damage Category 1

Hazard Statements:

H351 Suspected of causing cancer
H335 May cause respiratory irritation
H315 Causes skin irritation
H317 May cause an allergic skin reaction

Precautionary Statements:

H318 Causes serious eye damage
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breath dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace
P270 Do not eat, drink or smoke when using this product.

Response Statements:

P280 Wear protective gloves/eye protection/face protection..
P308+P313 IF exposed or concerned: Get medical advice/attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/Doctor if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P312 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/Doctor

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Storage Statements:

P403+P233 Store in a well-ventilated place.
Keep container tightly closed.
P405 Store locked up.

Disposal Statements:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Health Hazards or Risks From Exposure:

Symptoms of Overexposure by Route of Exposure:

The most significant routes of overexposure for this product are by contact with skin or eyes. The symptoms of overexposure are described in the following paragraphs.

Acute:

Inhalation: May cause respiratory irritation.

Skin Contact: May cause irritation to skin.

Eye Contact: Contact with the eyes may cause burns or irritation.

Ingestion: May cause gastrointestinal irritation, nausea, and vomiting.

Chronic: Repeated exposure may cause skin dryness or cracking.

Target Organs:

Acute: Eyes, Skin, Respiratory

Chronic: Lung, Skin

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	WT%	CAS No.	EINECS No.	Hazard Classification
Portland Cement	< 50%	65997-15-1	266-043-4	STOT SE3, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1
Crystalline Silica (Quartz)/ Silica Sand	< 50%	14808-60-7	238-878-4	Carc. 2, STOT RE2
Limestone	10-15%	1317-65-3	215-279-6	Skin Irrit. 3, Eye Irrit. 2B
Fly Ash	< 15%	681131-74-8	N/A	N/A
Napthalene	< 0.4%	91-20-3	202-049-5	Acute Tox. 4, Carc. 2, Aquatic Acute 1, Aquatic Chro 1

Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).

Note: All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures:

Eye Contact:

If product enters the eyes, flush with plenty of water or eye wash solution for several minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.

Skin Contact:

Wash skin thoroughly with soap and water after handling. Seek medical

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Inhalation:

attention if irritation develops and persists. If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

Ingestion:

If product is swallowed, call physician or poison center immediately. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

**Medical Conditions
Generally Aggravated
By Exposure:**

Pre-existing skin, respiratory system or eye problems may be aggravated by prolonged contact.

4.2 Symptoms and Effects Both Acute and Delayed: Exposure to skin and respiratory may cause irritation. Contact with the eyes may cause burns. Contact with skin may cause an allergic reaction. Repeated exposure may cause damage to the lungs.

4.3 Recommendations to Physicians: Treat symptoms and eliminate overexposure.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Fire Extinguishing Materials:

Use the following fire extinguishing materials:

Water Spray:	Yes
Foam:	Yes
Halon:	Yes
Carbon Dioxide:	Yes
Dry Chemical:	Yes
Other:	Any "C" Class

5.2 Unusual Fire and Explosion Hazards:

Irritating and toxic fumes may be produced at high temperatures. Use of water may result if the formation of a toxic aqueous solution. Do not allow run-off from fire fighting to enter drains or water courses.

Explosive Sensitivity to Mechanical Impact:	No
Explosive Sensitivity to Static Discharge:	No

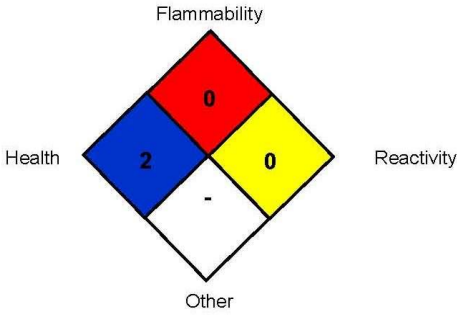






5.3 Special Fire-Fighting Procedures:

- Incipient fire responders should wear eye protection.
- Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment.
- Isolate materials not yet involved in the fire and protect personnel.
- Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray.

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- If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.

<p>NFPA RATING SYSTEM</p>  <p>Flammability: 0 Health: 2 Reactivity: 0 Other: -</p>	<p>HMIS RATING SYSTEM HAZARDOUS MATERIAL IDENTIFICATION SYSTEM</p> <table border="1"> <tr> <td style="background-color: #00b0f0; color: white;">HEALTH HAZARD (BLUE)</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="background-color: #ff0000; color: white;">FLAMMABILITY HAZARD (RED)</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="background-color: #ffff00; color: black;">PHYSICAL HAZARD (YELLOW)</td> <td style="text-align: center;">0</td> </tr> </table> <table border="1"> <thead> <tr> <th colspan="4">PROTECTIVE EQUIPMENT</th> </tr> <tr> <th>EYES</th> <th>RESPIRATORY</th> <th>HANDS</th> <th>BODY</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">See Sect 8</td> <td style="text-align: center;"></td> <td style="text-align: center;">See Sect 8</td> </tr> </tbody> </table> <p style="text-align: center; font-size: small;">For Routine Industrial Use and Handling Applications</p> <p style="text-align: center; font-size: x-small;">Hazard Scale: 0 = Minimum 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic Hazard</p>	HEALTH HAZARD (BLUE)	2	FLAMMABILITY HAZARD (RED)	0	PHYSICAL HAZARD (YELLOW)	0	PROTECTIVE EQUIPMENT				EYES	RESPIRATORY	HANDS	BODY		See Sect 8		See Sect 8
HEALTH HAZARD (BLUE)	2																		
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PHYSICAL HAZARD (YELLOW)	0																		
PROTECTIVE EQUIPMENT																			
EYES	RESPIRATORY	HANDS	BODY																
	See Sect 8		See Sect 8																

SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Use cautious judgment when cleaning up spill. Wear suitable protective clothing, gloves, and eye/face protection.

6.2 Environmental Precautions:

If liquid was introduced, construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

6.3 Spill and Leak Response:

Small Spills:

- Collect material via broom or mop. Place in tightly sealed containers for proper disposal.
- Approach spill areas with caution.
- If liquid was introduced, create a dike or trench to contain material.
- Soak up with absorbent material such as clay, sand or other suitable non-reactive material.

Large Spills:

- Place in leak-proof containers. Seal tightly for proper disposal.
- Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING AND STORAGE

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7.1 Precautions for Safe Handling:

To prevent eye contact under the foreseeable conditions of use, wear appropriate safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling.

7.2 Storage and Handling Practices:

Keep away from incompatible materials. Keep container closed when not in use and store in well ventilated area.

7.3 Specific Uses:

Multi-purpose grout.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure Parameters:

Ingredients	CAS No.	OSHA PEL	NIOSH PEL	ACGIH TWA
Portland Cement	65997-15-1	TWA 5 mg/m ³ (resp) TWA 15 mg/m ³ (total)	TWA 5 mg/m ³ (resp) TWA 10 mg/m ³ (total)	10 mg/m ³ (total)
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	TWA 0.1 mg/m ³ (resp) TWA 0.3 mg/m ³ (total)	Ca TWA 0.05 mg/m ³	0.025 mg/m ³
Naphthalene	91-20-3	TWA 10 ppm (50 mg/m ³)	TWA 10 ppm (50 mg/m ³)	Not Listed
Fly Ash	681131-74-8	TWA 5 mg/m ³	TWA 5mg/m ³	Not Listed

8.2 Exposure Controls:

Ventilation and Engineering Controls:

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132), or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

Respiratory Protection:

Maintain airborne contaminant concentrations below guidelines listed above. Use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

Eye Protection:

Safety glasses or goggles are required. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

Hand Protection:

Chemical resistant gloves are required to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European

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Body Protection:

Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.
Use body protect appropriate to task being performed.
If necessary, refer to appropriate Standards of Canada, or appropriate standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance (Physical State and Color): Gray powder

Odor: Minimal

Odor Threshold: No data available

pH: No data available

Melting/Freezing Point: No data available

Boiling Point: No data available

Flash Point: No data available

Evaporation Rate: No data available

Flammability (Solid; Gas): No data available

Upper/Lower Flammability or Explosion Limits: No data available

Vapor Pressure (mm Hg @ 20°C (68° F): No data available

Vapor Density: No data available

Relative Density: No data available

Specific Gravity: 2.6 - 3.2

Solubility in Water: Miscible

Weight per Gallon: No data available

Partition Coefficient (n-octanol/water): No data available

Auto-Ignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

9.2 Other Information: No data available

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity:

This product is not reactive.

10.2 Stability:

Stable under conditions of normal storage and use.

10.3 Possibility of Hazardous Reactions:

Will not occur.

10.4 Conditions to Avoid:

No data available.

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10.5 Incompatible Substances: Hydrogen fluoride.

10.6 Hazardous Decomposition Products: No data available.

SECTION 11 – TOXICOLOGY INFORMATION

11.1 Information on Toxicological Effects:

Toxicity Data:

Naphthalene	91-20-3	LD50 Oral – Rat	490 mg/kg
Crystalline Silica (Quartz/ Silica Sand	14808-60-7		

Suspected Cancer Agent: Naphthalene (CAS 91-20-3) and Crystalline Silica (Quartz)/Silica Sand is found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore is considered to be a cancer-causing agent by these agencies.

Irritancy: Skin, eye, and respiratory irritant.

Sensitization to the Product: This product is expected to cause skin sensitization.

Germ Cell Mutagenicity: This product does not contain ingredients that are suspected to be a germ cell mutagenic.

Reproductive Toxicity: This product is not expected to be a human reproductive toxicant.

Toxicity

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity: No data available

12.2 Persistence and Degradability: No specific data available on this product.

12.3 Bioaccumulative Potential: No specific data available on this product.

12.4 Mobility in Soil: No specific data available on this product.

12.5 Results of PBT and vPvB Assessment: No specific data available on this product.

12.6 Other Adverse Effects: No data available

12.7 Water Endangerment Class: At present, there are no ecotoxicological assessments for this product.

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.

13.2 EU Waste Code: Not determined

SECTION 14 - TRANSPORTATION INFORMATION

14.1 U.S. Department of Transportation (DOT) Shipping Regulations:

This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

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UN Identification Number:	Not applicable
Proper Shipping Name:	Not regulated
Hazard Class Number and Description:	Not applicable
Packing Group:	Not applicable
DOT Label(s) Required:	Not applicable
North American Emergency Response Guidebook Number:	Not applicable
14.2 Environmental Hazards:	
Marine Pollutant:	The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).
14.3 Special Precaution for User:	None
14.4 International Air Transport Association Shipping Information (IATA):	Not regulated.
14.5 International Maritime Organization Shipping Information (IMO):	
UN Identification Number:	Not applicable
Proper Shipping Name:	Not regulated
Hazard Class Number and Description:	Not applicable
Packing Group:	Not applicable
EMS-No:	Not applicable

SECTION 15 – REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations Specific for the Substance or Mixture:

United States Regulations:

U.S. SARA Reporting Requirements:

The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA 311/312:

Acute Health: Yes; Chronic Health: Yes; Fire: No; Reactivity: No

U.S. CERCLA Reportable Quantity:

None

U.S. TSCA Inventory Status:

The components of this product are listed on the TSCA Inventory or are exempted from listing.

Other U.S. Federal Regulations:

None known

California Safe Drinking Water and Toxic Enforcement Act (Proposition 66):

This product does contain “Silica, crystalline”, which is on the Proposition 65 Lists.

15.2 Canadian Regulations:

Canadian DSL/NDSL Inventory Status:

Components are DSL Listed, NDSL Listed and/or are exempt from listing

Other Canadian Regulations:

Not applicable

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

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Canadian WHMIS Classification and Symbols:

This product is Class E, Corrosive, and D2B, Materials causing other toxic effects, per WHMIS Controlled Product Regulations



15.3 European Economic Community Information:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives. See Section 2 for Details.

Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.4 Australian Information for Product:

Components of this product are listed on the International Chemical Inventory list.

15.5 Japanese Information for Product:

Japanese Minister of International Trade and Industry (MITI) Status: The components of this product are not listed as Class I specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

15.6 International Chemical Inventories:

Listing of the components on individual country Chemical Inventories is as follows:

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

U.S. TSCA: Listed

SECTION 16 – OTHER INFORMATION

Prepared By: Chris Eigbrett (MSDS to GHS Compliance)

Date of Printing: February 1, 2015

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. SpecChem assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, SpecChem assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET

**SAFETY DATA SHEET**

Revision Date: 09/07/2018

Print Date: 6/27/2019

SDS Number: R0067073

Valvoline™ ANTI-WEAR 46 HYDRAULIC OIL

Version: 1.3

3012

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier**Trade name : Valvoline™ ANTI-WEAR 46
HYDRAULIC OIL**Details of the supplier of the safety data sheet**Valvoline LLC
100 Valvoline Way
Lexington, KY 40509
United States of America (USA)
1-800-TEAMVAL (1-800-832-6825)

SDS@valvoline.com

Emergency telephone number

1-800-VALVOLINE (1-800-825-8654)

Regulatory Information Number

1-800-TEAMVAL (1-800-832-6825)

Product Information

1-800-TEAMVAL (1-800-832-6825)

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.


SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Static Accumulator

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	Not a hazardous substance or mixture.	>=90.00 - <= 100.00
Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based	72623-87-1	Asp. Tox. 1; H304	>=1.00 - < 1.50

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SECTION 4. FIRST AID MEASURES

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : No symptoms known or expected.
- Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO₂)
Dry chemical
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide
Hydrocarbons
- Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.
- Further information : Standard procedure for chemical fires.

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Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
- Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable fraction	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
		PEL	5 mg/m3	CAL PEL

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			particulate	
Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based	72623-87-1	REL	5 mg/m3 Mist.	NIOSH/GUID E
		STEL	10 mg/m3 Mist.	NIOSH/GUID E
				NIOSH/GUID E
		PEL	5 mg/m3 Mist.	OSHA_TRANS
				OSHA_TRANS
		TWA	5 mg/m3 Mist.	ACGIH
		STEL	10 mg/m3 Mist.	ACGIH
				ACGIH
		TWA	0.2 mg/m3 Inhalable fraction.	ACGIHLIS_P
				ACGIHLIS_P
				ACGIHLIS_P
				ACGIHLIS_P

Engineering measures : General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection : Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

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Odour	: No data available
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: > 425 °F / 218 °C (1013.33 hPa)
Flash point	: > 390 °F / > 199 °C Method: Cleveland open cup
Evaporation rate	: 1 Ethyl Ether
Flammability (solid, gas)	: No data available
Upper explosion limit	: 6 %(V) Calculated Explosive Limit
Lower explosion limit	: 1 %(V) Calculated Explosive Limit
Vapour pressure	: 0.0133333 hPa (21.11 °C) Calculated Vapor Pressure
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.8686 g/cm ³ (15.56 °C)
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: 42 - 50 mm ² /s (40 °C)
Oxidizing properties	: No data available

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SECTION 10. STABILITY AND REACTIVITY

- Reactivity : No decomposition if stored and applied as directed.
- Chemical stability : Stable under recommended storage conditions.
- Possibility of hazardous reactions : Product will not undergo hazardous polymerization.
- Conditions to avoid : None known.
- Incompatible materials : Strong acids
Strong oxidizing agents
- Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

- Inhalation
- Skin contact
- Eye Contact
- Ingestion

Acute toxicity

Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Acute oral toxicity : LD50 (Rat): > 15 g/kg

Acute dermal toxicity : LD50 (Rabbit): > 5 g/kg

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.58 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Assessment: Not classified as acutely toxic by inhalation under GHS.
 Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
 Remarks: No mortality observed at this dose.

Skin corrosion/irritation

Not classified based on available information.

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Components:**DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:**

Assessment : Slight, transient irritation
Result : Slight, transient irritation

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks : Unlikely to cause eye irritation or injury.

Components:**DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:**

Result : No eye irritation
Assessment : No eye irritation

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitisation**Skin sensitisation**

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:**Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:**

Test Type : Buehler Test
Species : Guinea pig
Assessment : Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Components:**DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:**


Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is

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on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

No aspiration toxicity classification

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Not classified based on available information.

Long-term (chronic) aquatic hazard : Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Toxicity to fish : LL50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EL50 (Aquatic invertebrates): > 10,000 mg/l
Exposure time: 48 h

Toxicity to algae : EL50 (Algae, algal mat (Algae)): > 100 mg/l
Exposure time: 72 h

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- Toxicity to fish (Chronic toxicity) : NOEC (Fish): 10 mg/l
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Aquatic invertebrates): 10 mg/l
- Ecotoxicology Assessment Short-term (acute) aquatic hazard : Not classified based on available information.
- Long-term (chronic) aquatic hazard : Not classified based on available information.
- Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:
 Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
 Exposure time: 96 h
 Test Type: static test
 Test substance: WAF
 Method: OECD Test Guideline 203
 Remarks: No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 10,000 mg/l
 Exposure time: 48 h
 Test Type: static test
 Test substance: WAF
 Method: OECD Test Guideline 202
- Toxicity to algae : NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
 End point: Growth inhibition
 Exposure time: 72 h
 Test Type: static test
 Test substance: WAF
 Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : NOELR (Oncorhynchus mykiss (rainbow trout)): >= 1,000 mg/l
 Exposure time: 14 d
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEL (Daphnia (water flea)): 10 mg/l
 Exposure time: 21 d
 Test substance: WAF
 Method: OECD Test Guideline 211

Persistence and degradability

Components:

- Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:
 Biodegradability : Result: Not readily biodegradable.
 Biodegradation: 2 - 4 %
 Exposure time: 28 d
 Method: OECD Test Guideline 301B



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No data available

Bioaccumulative potential

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Partition coefficient: n-octanol/water : log Pow: Expected > 7

No data available

Mobility in soil

Components:

No data available

Other adverse effects

No data available

Product:

Additional ecological information : No data available

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

U.S. DOT - ROAD

Not dangerous goods

CFR_RAIL_C

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods



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TDG_ROAD_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

TDG_INWT_C

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MX_DG

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	no
------------------	----

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act


CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
TOLUENE	108-88-3	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

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SARA 311/312 Hazards : No SARA Hazards

California Prop. 65

This product contains a chemical that is at or below California Propositions 65's "safe harbor level" for carcinogenicity as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

This product contains a chemical that is at or below California Propositions 65's "safe harbor level" for reproductive/developmental toxicity as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

The components of this product are reported in the following inventories:

- DSL : All components of this product are on the Canadian DSL
- AICS : On the inventory, or in compliance with the inventory
- ENCS : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory
- TCSI : On the inventory, or in compliance with the inventory
- TSCA : On TSCA Inventory

TSCA list

No substances are subject to TSCA 12(b) export notification requirements.

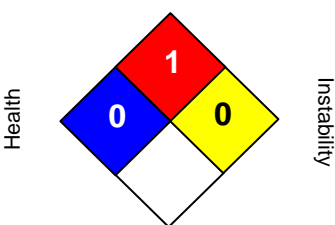
SECTION 16. OTHER INFORMATION

Further information

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NFPA:	HMIS III:
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<p>Flammability</p>  <p>Health</p> <p>Instability</p> <p>Special hazard.</p>	<table border="1"> <tr> <td>HEALTH</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FLAMMABILITY</td> <td style="text-align: center;">1</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td style="text-align: center;">0</td> </tr> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	0	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	0						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements

H304 May be fatal if swallowed and enters airways.

Sources of key data used to compile the Safety Data Sheet

Valvoline internal data including own and sponsored test reports


The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline’s Environmental Health and Safety Department (1-800-VALVOLINE).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :


- ACGIH : American Conference of Industrial Hygienists
- BEI : Biological Exposure Index
- CAS : Chemical Abstracts Service (Division of the American Chemical Society).
- CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
- FG : Food grade
- GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
- H-statement : Hazard Statement
- IATA : International Air Transport Association.
- IATA-DGR : Dangerous Goods Regulation by the “International Air Transport Association” (IATA).

- ICAO : International Civil Aviation Organization
- ICAO-TI (ICAO) : Technical Instructions by the “International Civil Aviation Organization”

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IMDG : International Maritime Code for Dangerous Goods
 ISO : International Organization for Standardization
 logPow : octanol-water partition coefficient
 LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement
 PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment
 STEL : Short-term exposure limit
 STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
 DOT : Department of Transportation
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
 HMIRC : Hazardous Materials Information Review Commission
 HMIS : Hazardous Materials Identification System
 NFPA : National Fire Protection Association
 NIOSH : National Institute for Occupational Safety and Health
 OSHA : Occupational Safety and Health Administration
 PMRA : Health Canada Pest Management Regulatory Agency
 RTK : Right to Know
 WHMIS : Workplace Hazardous Materials Information System

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29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Valvoline™ GM Multipurpose Grease

Details of the supplier of the safety data sheet Valvoline LLC 100 Valvoline Way Lexington, KY 40509 United States of America (USA) 1-800-TEAMVAL	Emergency telephone number 1-800-VALVOLINE (1-800-825-8654) Regulatory Information Number 1-800-TEAMVAL Product Information 1-800-TEAMVAL
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SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS label elements

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC	64742-65-0	Asp. Tox. 1; H304	74.9999
ASPHALT	8052-42-4	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom)	24.9999



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		2012).	
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHT	64742-52-5	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	9.9999

SECTION 4. FIRST AID MEASURES

- General advice : No hazards which require special first aid measures.
 - If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
 - In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
 - In case of eye contact : Remove contact lenses.
Protect unharmed eye.
 - If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
 - Most important symptoms and effects, both acute and delayed : Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.
- Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)

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Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO₂)
Dry chemical
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide
Sulphur oxides
Hydrocarbons
Aldehydes
Ketones
Nitrogen oxides (NO_x)
- Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

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SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.

Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ASPHALT	8052-42-4	TWA	0.5 mg/m3 Fume, inhalable fraction (benzene soluble aerosol)	ACGIH
		C	5 mg/m3 Fumes	NIOSH REL
		PEL	5 mg/m3 Fumes	CAL PEL
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHT	64742-52-5	TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable fraction	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
		PEL	5 mg/m3 particulate	CAL PEL

Hazardous components without workplace control parameters

Components	CAS-No.
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC	64742-65-0

Engineering measures : General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure

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guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
- Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.
- Skin and body protection : Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).
- Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : gel
- Physical state : liquid
- Colour : red
- Odour : No data available
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Boiling point/boiling range : 640 °F / 338 °C
- Flash point : 471 °F / 244 °C
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Vapour pressure : < 0.01 mmHg (20 °C)



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Relative vapour density : No data available

Relative density : 0.95 (15.6 °C)

Density : 0.90 g/cm³ (20 °C)

Solubility(ies)

Water solubility : negligible

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : > 315 °C

Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : > 20.5 mm²/s (40 °C)

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : None known.

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide
Hydrocarbons
Sulphur oxides

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SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate (Rat): 3,019 mg/kg

Acute dermal toxicity : Acute toxicity estimate (Rabbit): 169,492 mg/kg

Components:

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

ASPHALT:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : Assessment: Not classified as acutely toxic by inhalation under GHS.
Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: Not classified as acutely toxic by dermal absorption under GHS.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHT:


Acute oral toxicity : LD50 (Rat): > 5 g/kg

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: Not classified as acutely toxic by inhalation under GHS.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: Not classified as acutely toxic by dermal absorption under GHS.
Remarks: No mortality observed at this dose.

Skin corrosion/irritation

Not classified based on available information.

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Product:

Result: No skin irritation

Components:

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

Result: Slight, transient irritation

ASPHALT:

Species: Rabbit

Result: No skin irritation

Remarks: Information given is based on data obtained from similar substances.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHT:

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Result: No eye irritation

Remarks: Unlikely to cause eye irritation or injury.

Components:

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

Result: Slight, transient irritation

ASPHALT:

Species: Rabbit

Remarks: May irritate eyes.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHT:

Species: Rabbit

Result: Slight, transient irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

ASPHALT:

Test Type: Buehler Test

Species: Guinea pig

Assessment: Does not cause skin sensitisation.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHT:

Species: Guinea pig

Assessment: Does not cause skin sensitisation.

Method: OECD Test Guideline 406



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Germ cell mutagenicity
Not classified based on available information.

Components:

ASPHALT:

Genotoxicity in vitro : Result: Positive results were obtained in some in vitro tests.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Components:

DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

Components:

ASPHALT:

Toxicity to fish : Remarks: No toxicity at the limit of solubility
QSAR

Toxicity to daphnia and other aquatic invertebrates : Remarks: No toxicity at the limit of solubility
QSAR

Toxicity to algae : Remarks: No toxicity at the limit of solubility
QSAR

Toxicity to fish (Chronic toxicity) : Remarks: No toxicity at the limit of solubility
QSAR

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DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHT:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 202

Toxicity to algae : NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEL (Daphnia (water flea)): 10 mg/l
Exposure time: 21 d
Test Type: semi-static test
Test substance: WAF
Method: OECD Test Guideline 211

Persistence and degradability**ASPHALT:**

Biodegradability : Result: Not readily biodegradable.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHT:

Biodegradability : Result: Inherently biodegradable.
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS



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Disposal methods

General advice : Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

U.S. DOT - ROAD

Not dangerous goods

CFR_RAIL_C

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TDG_ROAD_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

TDG_INWT_C


Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MX_DG

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	no
------------------	----

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

**EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards


SARA 313 This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 Proposition 65 warnings are not required for this product based on the results of a risk assessment.

The components of this product are reported in the following inventories:

- TSCA : On TSCA Inventory
- AICS : On the inventory, or in compliance with the inventory
- DSL : All components of this product are on the Canadian DSL
- ENCS : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

Inventories

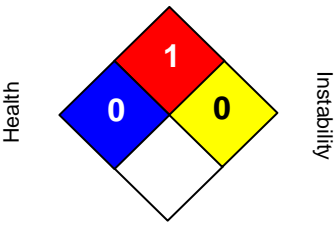
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AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

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<p>NFPA:</p> <div style="text-align: center;"> <p>Flammability</p>  <p>Health Instability</p> <p>Special hazard.</p> </div>	<p>HMIS III:</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: blue; color: white;">HEALTH</td> <td>0</td> </tr> <tr> <td style="background-color: red; color: white;">FLAMMABILITY</td> <td>1</td> </tr> <tr> <td style="background-color: yellow;">PHYSICAL HAZARD</td> <td>0</td> </tr> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	0	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	0						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements

H304 May be fatal if swallowed and enters airways.

Sources of key data used to compile the Safety Data Sheet


Valvoline internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline's Environmental Health and Safety Department (1-800-VALVOLINE).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

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BEI : Biological Exposure Index
 CAS : Chemical Abstracts Service (Division of the American Chemical Society).
 CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
 FG : Food grade
 GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
 H-statement : Hazard Statement
 IATA : International Air Transport Association.
 IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization
 ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
 IMDG : International Maritime Code for Dangerous Goods
 ISO : International Organization for Standardization
 logPow : octanol-water partition coefficient
 LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement
 PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment
 STEL : Short-term exposure limit
 STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
 DOT : Department of Transportation
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
 HMIRC : Hazardous Materials Information Review Commission
 HMIS : Hazardous Materials Identification System
 NFPA : National Fire Protection Association
 NIOSH : National Institute for Occupational Safety and Health
 OSHA : Occupational Safety and Health Administration
 PMRA : Health Canada Pest Management Regulatory Agency
 RTK : Right to Know
 WHMIS : Workplace Hazardous Materials Information System

**SAFETY DATA SHEET**

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SDS Number: R0239085

SynPower™ SYNPOWER 10W30 4/5 L VALUE PKG Synthetic Motor Oil

Version: 1.4

3126

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier**

Trade name : SynPower™ SYNPOWER 10W30 4/5 L VALUE PKG Synthetic Motor Oil

Details of the supplier of the safety data sheetValvoline LLC
100 Valvoline Way
Lexington, KY 40509
United States of America (USA)
1-800-TEAMVAL (1-800-832-6825)**Emergency telephone number**

1-800-VALVOLINE (1-800-825-8654)

Regulatory Information Number

1-800-TEAMVAL (1-800-832-6825)

Product Information

1-800-TEAMVAL (1-800-832-6825)

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS label elements

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
Mineral Oil		Asp. Tox. 1; H304	5.871
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	Asp. Tox. 1; H304	1.254

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SECTION 4. FIRST AID MEASURES

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
acne
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
- Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam



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Carbon dioxide (CO2)
Dry chemical

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : carbon dioxide and carbon monoxide
Hydrocarbons
nitrogen oxides (NOx)

Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.

Further information : Standard procedure for chemical fires.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions : Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.

Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable fraction	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
		PEL	5 mg/m3 particulate	CAL PEL

Hazardous components without workplace control parameters

Components	CAS-No.
Mineral Oil	

Engineering measures : General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection : Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

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Colour	: amber
Odour	: No data available
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: 662 °F / 350 °C (1,013.333333 hPa) Calculated Phase Transition Liquid/Gas
Flash point	: > 390 °F / > 199 °C Method: Cleveland open cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: 0.1333333 hPa (20 °C) Calculated Vapor Pressure
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.8555 g/cm ³
Solubility(ies)	
Water solubility	: negligible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: ca. 70 mm ² /s (40 °C)

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Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : None known.

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : carbon dioxide and carbon monoxide
Hydrocarbons
Nitrogen oxides (NOx)**SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion**Acute toxicity**

Not classified based on available information.

Components:Distillates (Petroleum), Hydrotreated Heavy Paraffinic:
Acute oral toxicity : LD50 (Rat): > 15 g/kg

Acute dermal toxicity : LD50 (Rabbit): > 5 g/kg

Skin corrosion/irritation

Not classified based on available information.


Components:Distillates (Petroleum), Hydrotreated Heavy Paraffinic:
Result: Slight, transient irritation**Serious eye damage/eye irritation**

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

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Distillates (Petroleum), Hydrotreated Heavy Paraffinic:
Result: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.
Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Components:

Mineral Oil:
May be fatal if swallowed and enters airways.

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:
May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: No data available

Carcinogenicity:

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

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Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

Components:

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

Toxicity to fish : LL50 (Fish): > 100 mg/l
Exposure time: 96 hToxicity to daphnia and other : EL50 (Aquatic invertebrates): > 10,000 mg/l
aquatic invertebrates Exposure time: 48 hToxicity to algae : EL50 (Algae, algal mat (Algae)): > 100 mg/l
Exposure time: 72 hToxicity to fish (Chronic : NOEC (Fish): 10 mg/l
toxicity)Toxicity to daphnia and other : NOEC (Aquatic invertebrates): 10 mg/l
aquatic invertebrates
(Chronic toxicity)**Persistence and degradability**

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:Additional ecological : No data available
information

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

General advice : Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION**International transport regulations**



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REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
-----------	----------------------	---------------	--------------------	---------------	------------------------------

U.S. DOT - ROAD

Not dangerous goods

CFR_RAIL_C

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TDG_ROAD_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

TDG_INWT_C

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MX_DG

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID



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Marine pollutant	no
------------------	----

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
TOLUENE	108-88-3	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AICS : Not in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

IECSC : q (quantity restricted)

PICCS : Not in compliance with the inventory

TSCA : On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

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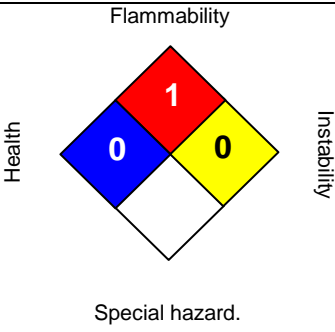
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SECTION 16. OTHER INFORMATION

Further information

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<p>NFPA:</p>  <p>Flammability</p> <p>Health</p> <p>Instability</p> <p>Special hazard.</p>	<p>HMIS III:</p> <table border="1"> <tr> <td style="background-color: blue; color: white;">HEALTH</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="background-color: red; color: white;">FLAMMABILITY</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: yellow; color: black;">PHYSICAL HAZARD</td> <td style="text-align: center;">0</td> </tr> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	0	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	0						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements

H304 May be fatal if swallowed and enters airways.

Sources of key data used to compile the Safety Data Sheet

Valvoline internal data including own and sponsored test reports

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BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

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GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act

DOT : Department of Transportation

FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act

HMIRC : Hazardous Materials Information Review Commission

HMIS : Hazardous Materials Identification System

NFPA : National Fire Protection Association

NIOSH : National Institute for Occupational Safety and Health

OSHA : Occupational Safety and Health Administration

PMRA : Health Canada Pest Management Regulatory Agency

RTK : Right to Know

WHMIS : Workplace Hazardous Materials Information System



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product:	1100	Part Number:	3011000
Manufacturer:	W. R. MEADOWS, INC.	Address:	300 Industrial Drive Hampshire, Illinois 60140
Telephone:	(847) 214-2100	In case of emergency, dial (800) 424-9300 (CHEMTREC)	
Revision Date:	8/31/2018		
Product Use:	Concrete Curing Compound		

SECTION 2: HAZARDS IDENTIFICATION/EXPOSURE LIMITS

HMIS		HAZARD STATEMENTS	
 Health 	 1 	WARNING! May cause skin irritation.	
 Flammability 	 0 	May cause eye irritation.	
 Reactivity 	 0 	May cause respiratory irritation.	
 Personal Protection 	 	PRECAUTIONARY STATEMENTS Avoid direct contact. Avoid of inhalation of mists/vapors.	

SECTION 3: HAZARDS COMPONENTS

<u>Chemical Name:</u>	<u>CAS Number</u>	<u>% by Weight</u>	<u>SARA 313</u>	<u>Vapor Pressure (mm Hg@20°C)</u>	<u>LEL (@25°C)</u>
1. Light Aromatic Naphtha	64742-95-6	5-10	No	2.1	1

Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1966 (SARA) and 40 CFR Part 372, chemicals listed on the 313 List (40 CFR Part 373.65) are identified under the heading "SARA 313." *N/A: Not Applicable*

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Immediately flush eyes with water for fifteen minutes. If symptoms persist, seek medical attention.

SKIN CONTACT: Remove contaminated shoes/clothing. Wipe excess from skin and wash with soap if available. Seek medical attention if irritation persists. Do not use clothing until thoroughly decontaminated.

INHALATION: Remove victim to fresh air and treat symptomatically. Seek medical attention if symptoms persist.

INGESTION: Do not induce vomiting. If vomiting spontaneously occurs, keep the victim's head below the hips to prevent lung aspiration. Seek immediate medical attention.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND CHRONIC: See Section Eleven for Symptoms/Effects.

SECTION 5: FIRE AND EXPLOSIVES HAZARDS

FLASHPOINT: >210 °F

EXTINGUISHING MEDIA: Water fog, foam, dry chemical, or carbon dioxide.

CHEMICAL/COMBUSTION HAZARDS: Carbon dioxide, carbon monoxide, and incomplete combustion products.

PRECAUTIONS/PERSONAL PROTECTIVE EQUIPMENT: Avoid smoke inhalation. Personal protective equipment should include helmet, face shield, bunker coat, gloves, rubber boots, and a positive pressure NIOSH-approved self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Evacuate unauthorized personnel from spill area. Wear appropriate personal protective equipment. Shut off source of spill if safe to do so. Dike and contain. Recover free product and soak up residue with an absorbent, such as clay or other suitable material. Place in non-leaking containers for proper disposal. Flush area to remove trace residues. Dispose of flush solutions as above.

SECTION 7: HANDLING AND STORAGE

SAFE HANDLING PROCEDURES: Avoid direct contact.

SAFE STORAGE: Keep containers closed when not in use. Prevent product from freezing.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Chemical Name:</u>	<u>OSHA</u>					<u>ACGIH</u>		
	<u>PEL</u>	<u>PEL/CEILING</u>	<u>PEL/STEL</u>	<u>SKIN</u>	<u>TWA</u>	<u>TLV/CEILING</u>	<u>TLV/STEL</u>	<u>SKIN</u>
1. Light Aromatic Naphtha	N/E	N/E	N/E	N/E	N/E	N/E	N/E	N/E

ENGINEERING CONTROLS: None required under normal use conditions.

PERSONAL PROTECTIVE EQUIPMENT: Safety glasses, chemical-resistant gloves. *N/E: Not Established*

SAFETY DATA SHEET

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 212 °F	VAPOR DENSITY: > 1 (Air=1)	% VOLATILE BY VOLUME: 85
EVAPORATION RATE: <1 (Ether =1)	pH LEVEL: 8.80	% VOLATILE BY WEIGHT: 84
WEIGHT PER GALLON: 8.33	PRODUCT APPEARANCE: Tan Liquid	VOC CONTENT: 278 g/L
ODOR: Mild Organic	ODOR THRESHOLD: N/D	MELTING/FREEZING POINT: N/D
FLASH POINT: See Section 5	FLAMMABILITY: N/D	UEL/LEL: N/D
VAPOR PRESSURE: N/D	RELATIVE DENSITY: N/D	SOLUBILITY: N/D
PARTITION COEFFICIENT: N/D	AUTOIGNITION TEMPERATURE: N/D	DECOMPOSITION TEMPERATURE: N/D
VISCOSITY: N/D		<i>N/D: Not Determined</i>

SECTION 10: STABILITY/REACTIVITY

STABILITY: Stable. **HAZARDOUS POLYMERIZATION:** Will not occur.
CONDITIONS AND MATERIALS TO AVOID: Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: None recognized.

SECTION 11: TOXICOLOGICAL INFORMATION

EYE CONTACT: Direct contact may cause mild to moderate irritation. Product vapors/mists may also cause irritation.
SKIN CONTACT: Direct contact may result in mild to moderate irritation.
INHALATION: Not expected to be an exposure pathway under normal use conditions.
INGESTION: Not expected to be an exposure pathway under normal use conditions.
SIGNS AND SYMPTOMS: Symptoms of eye irritation include pain, tearing, redness, and swelling. Symptoms of skin irritation include reddening, swelling, and rash. Symptoms of respiratory irritation include runny nose, coughing, chest discomfort, shortness of breath, and reduced lung function. Symptoms of gastrointestinal irritation include sore throat, abdominal pain, nausea, vomiting, and diarrhea.
AGGRAVATED MEDICAL CONDITIONS: None recognized.
OTHER HEALTH EFFECTS: None recognized.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: N/E	DEGRADABILITY: N/E	BIOACCUMULATIVE POTENTIAL: N/E
SOIL MOBILITY: N/E	OTHER ADVERSE EFFECTS: N/E	

SECTION 13: WASTE DISPOSAL INFORMATION

WASTE DISPOSAL INFORMATION: Classified as a non-hazardous waste.

SECTION 14: TRANSPORTATION INFORMATION

HAZARDOUS/NON-HAZARDOUS MATERIAL: Non-hazardous.
UN NUMBER: None. **HAZARD CLASS:** None. **PACKING GROUP:** None.
UN PROPER SHIPPING NAME: Not regulated.
ENVIRONMENTAL HAZARDS: Not applicable.
BULK TRANSPORTATION INFORMATION: Not regulated when shipped in bulk configuration.
SPECIAL PRECAUTIONS: Protect product from freezing.

SECTION 15: REGULATORY INFORMATION

OTHER REGULATORY CONSIDERATIONS: None.

SECTION 16: OTHER INFORMATION

PREPARATION DATE: 8/31/2018
PREPARED BY: Dave Carey

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injury from the use of this product described herein.



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION							
Product:	DECK-O-FOAM	Part Number:	4610000				
Manufacturer:	W. R. MEADOWS, INC.	Address:	300 Industrial Drive Hampshire, Illinois 60140				
Telephone:	(847) 214-2100	In case of emergency, dial (800) 424-9300 (CHEMTREC)					
Revision Date:	4/11/2019						
Product Use:	Expansion Joint for Concrete						
SECTION 2: HAZARDS IDENTIFICATION/EXPOSURE LIMITS							
HMIS							
 Health 	0	Product is classified as non-hazardous per OSHA 1910.1200. Deck-O-Foam is defined by OSHA as an "article." A manufactured item that is formed to a specific shape or design during manufacture that does not release or result in exposure to a hazardous chemical under normal use conditions.					
 Flammability 	0						
 Reactivity 	0						
 Personal Protection 							
SECTION 3: HAZARDS COMPONENTS							
Chemical Name:	CAS Number	% by Weight	SARA 313	Vapor Pressure (mm Hg@20°C)	LEL (@24°C)		
1. None							
Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1966 (SARA) and 40 CFR Part 372, chemicals listed on the 313 List (40 CFR Part 373.65) are identified under the heading "SARA 313."							
SECTION 4: EMERGENCY AND FIRST AID PROCEDURES							
EYE CONTACT: Flush eyes with water to remove particles.							
SKIN CONTACT: Flush with water to remove particles. Wash affected areas with soap and water if available.							
INHALATION: Not expected to be an exposure route.							
INGESTION: Not expected to be an exposure source.							
MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND CHRONIC: See Section Eleven for Symptoms/Effects.							
SECTION 5: FIRE AND EXPLOSIVES HAZARDS							
FLASHPOINT: Not applicable.							
EXTINGUISHING MEDIA: Water fog, foam, dry chemical.							
CHEMICAL/COMBUSTION HAZARDS: None recognized.							
PRECAUTIONS/PERSONAL PROTECTIVE EQUIPMENT: Avoid smoke inhalation. Use appropriate respiratory protection.							
SECTION 6: ACCIDENTAL RELEASE MEASURES							
SPILL OR LEAK PROCEDURES: Not applicable. Product is a solid.							
SECTION 7: HANDLING AND STORAGE							
SAFE HANDLING PROCEDURES: No special requirements							
SAFE STORAGE: None.							
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION							
Chemical Name:	OSHA			ACGIH			
	PEL	PEL/CEILING	PEL/STEL	SKIN	TLV	TLV/CEILING	TLV/STEL
1. None							
ENGINEERING CONTROLS: None required under normal use conditions.							
PERSONAL PROTECTIVE EQUIPMENT: None required under normal conditions of use.							
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES							
BOILING POINT: N/A	VAPOR DENSITY: N/A		% VOLATILE BY VOLUME: N/A				
EVAPORATION RATE: N/A	pH LEVEL: N/A		% VOLATILE BY WEIGHT: N/A				
WEIGHT PER GALLON: N/A	PRODUCT APPEARANCE: Solid Material		VOC CONTENT: N/A				
ODOR: None	ODOR THRESHOLD: N/D		MELTING/FREEZING POINT: N/D				
FLASH POINT: See Section 5	FLAMMABILITY: N/D		UEL/LEL: N/D				
VAPOR PRESSURE: N/D	RELATIVE DENSITY: N/D		SOLUBILITY: N/D				
PARTITION COEFFICIENT: N/D	AUTOIGNITION TEMPERATURE: N/D		DECOMPOSITION TEMPERATURE: N/D				
VISCOSITY: N/D	N/A: Not Applicable		N/D: Not Determined				
SECTION 10: STABILITY/REACTIVITY							
STABILITY: Stable.		HAZARDOUS POLYMERIZATION: Will not occur.					
CONDITIONS AND MATERIALS TO AVOID: None recognized.							
HAZARDOUS DECOMPOSITION PRODUCTS: None recognized.							

SAFETY DATA SHEET

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SECTION 11: TOXICOLOGICAL INFORMATION		
EYE CONTACT: No adverse effects with normal product use. SKIN CONTACT: No adverse effects with normal product use. INHALATION: Not anticipated to be an exposure route. INGESTION: Not anticipated to be an exposure route. SIGNS AND SYMPTOMS: Symptoms of eye irritation include tearing, reddening, and swelling. Symptoms of skin irritation include redness and swelling. Gastrointestinal irritation symptoms include nausea, vomiting, and abdominal discomfort. AGGRAVATED MEDICAL CONDITIONS: None recognized. OTHER HEALTH EFFECTS: None recognized.		
SECTION 12: ECOLOGICAL INFORMATION		
ECOTOXICITY: N/E SOIL MOBILITY: N/E	DEGRADABILITY: N/E OTHER ADVERSE EFFECTS: None Recognized	BIOACCUMULATIVE POTENTIAL: N/E
SECTION 13: WASTE DISPOSAL INFORMATION		
WASTE DISPOSAL INFORMATION: Product is classified as a non-hazardous waste.		
SECTION 14: TRANSPORTATION INFORMATION		
HAZARDOUS/NON-HAZARDOUS MATERIAL: Not regulated by DOT. UN NUMBER: None. HAZARD CLASS: N/A PACKING GROUP: N/A UN PROPER SHIPPING NAME: N/A ENVIRONMENTAL HAZARDS: None recognized. BULK TRANSPORTATION INFORMATION: None. SPECIAL PRECAUTIONS: None.		
SECTION 15: REGULATORY INFORMATION		
OTHER REGULATORY CONSIDERATIONS: None recognized.		
SECTION 16: OTHER INFORMATION		
PREPARATION DATE:	4/11/2019	
PREPARED BY:	Dave Carey	

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injury from the use of this product described herein.



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product:	FIBRE EXPANSION JOINT	Part Number:	1103360
Manufacturer:	W. R. MEADOWS, INC.	Address:	300 Industrial Drive Hampshire, Illinois 60140
Telephone:	(847) 214-2100	In case of emergency, dial (800) 424-9300 (CHEMTREC)	
Revision Date:	11/9/2017		
Product Use:	Expansion Joint in Concrete Construction		

SECTION 2: HAZARDS IDENTIFICATION/EXPOSURE LIMITS

HMIS		
 Health 	1	Product is classified as non-hazardous per OSHA 1910.1200. Fiber Expansion Joint is defined by OSHA as an "article." A manufactured item that is formed to a specific shape or design during manufacture that does not release or result in exposure to a hazardous chemical under normal use conditions.
 Flammability 	1	
 Reactivity 	0	
 Personal Protection 		

SECTION 3: HAZARDS COMPONENTS

<u>Chemical Name:</u>	<u>CAS Number</u>	<u>% by Weight</u>	<u>SARA 313</u>	<u>Vapor Pressure (mm Hg@20°C)</u>	<u>LEL (@24°C)</u>
1. Petroleum Asphalt	8052-42-4	35-40	No	N/A	N/A

Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1966 (SARA) and 40 CFR Part 372, chemicals listed on the 313 List (40 CFR Part 373.65) are identified under the heading "SARA 313." *N/A = Not Applicable*

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush eyes with water to remove fibers
SKIN CONTACT: Flush with water to remove fibers. Wash affected areas with soap and water if available
INHALATION: Not expected to be an exposure route. If a dust exposure occurs, remove victim from exposure source and treat symptomatically.
INGESTION: Not expected to be an exposure source.

SECTION 5: FIRE AND EXPLOSIVES HAZARDS

FLASHPOINT: Not Applicable
EXTINGUISHING MEDIA: Water fog, foam, dry chemical.
CHEMICAL/COMBUSTION HAZARDS: Stacked material will retain heat and has the potential to reignite.
PRECAUTIONS/PERSONAL PROTECTIVE EQUIPMENT: Avoid smoke inhalation. Use appropriate respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Not applicable. Product is a solid.

SECTION 7: HANDLING AND STORAGE

SAFE HANDLING PROCEDURES: Avoid direct contact.
SAFE STORAGE: None

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Chemical Name:</u>	OSHA				ACGIH			
	<u>PEL</u>	<u>PEL/CEILING</u>	<u>PEL/STEL</u>	<u>SKIN</u>	<u>TLV</u>	<u>TLV/CEILING</u>	<u>TLV/STEL</u>	<u>SKIN</u>
1. Petroleum Asphalt	5 mg/m ³ *	N/E	N/E	No	0.5 mg/m ³ *	N/E	N/E	N/E

ENGINEERING CONTROLS: None required under normal use conditions.
PERSONAL PROTECTIVE EQUIPMENT: Safety glasses, chemical-resistant gloves. *N/E = Not Established* *: Asphalt Fumes

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A	VAPOR DENSITY: N/A	% VOLATILE BY VOLUME: N/A
EVAPORATION RATE: N/A	pH LEVEL: N/A	% VOLATILE BY WEIGHT: N/A
WEIGHT PER GALLON: N/A	PRODUCT APPEARANCE: Black Board	VOC CONTENT: N/A

SECTION 10: STABILITY/REACTIVITY

STABILITY: Stable. **HAZARDOUS POLYMERIZATION:** Will not occur.
CONDITIONS AND MATERIALS TO AVOID: None recognized.
HAZARDOUS DECOMPOSITION PRODUCTS: None recognized.

SAFETY DATA SHEET

Date of Preparation: 11/09/17

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SECTION 11: TOXICOLOGICAL INFORMATION

EYE CONTACT: Direct contact may cause mild irritation.

SKIN CONTACT: Direct contact may cause slight skin irritation.

INHALATION: Not anticipated to be an exposure route.

INGESTION: Not anticipated to be an exposure route.

SIGNS AND SYMPTOMS: Symptoms of eye irritation include tearing, reddening, and swelling. Symptoms of skin irritation include redness and swelling. Gastrointestinal irritation symptoms include nausea, vomiting, and abdominal discomfort.

AGGRAVATED MEDICAL CONDITIONS: None recognized.

OTHER HEALTH EFFECTS: Wood dust is listed by the IARC as a human carcinogen (Group 1)

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: N/E

DEGRADABILITY: N/E

BIOACCUMULATIVE POTENTIAL: N/E

SOIL MOBILITY: N/E

OTHER ADVERSE EFFECTS: None Recognized

SECTION 13: WASTE DISPOSAL INFORMATION

WASTE DISPOSAL INFORMATION: Product is classified as a non-hazardous waste.

SECTION 14: TRANSPORTATION INFORMATION

HAZARDOUS/NON-HAZARDOUS MATERIAL: Not regulated by DOT.

UN NUMBER: None

HAZARD CLASS: N/A

PACKING GROUP: N/A

UN PROPER SHIPPING NAME: N/A

ENVIRONMENTAL HAZARDS: None recognized.

BULK TRANSPORTATION INFORMATION: None.

SPECIAL PRECAUTIONS: None.

SECTION 15: REGULATORY INFORMATION

OTHER REGULATORY CONSIDERATIONS: None recognized.

SECTION 16: OTHER INFORMATION

PREPARATION DATE: 11/9/2017

PREPARED BY: Dave Carey

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injury from the use of this product described herein.



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product:	WATERSTOP EC	Part Number:	5124000
Manufacturer:	W. R. MEADOWS, INC.	Address:	300 Industrial Drive Hampshire, Illinois 60140
Telephone:	(847) 214-2100	In case of emergency, dial (800) 424-9300 (CHEMTREC)	
Revision Date:	6/9/2017		
Product Use:	Water Stop		

SECTION 2: HAZARDS IDENTIFICATION/EXPOSURE LIMITS

HMIS		
Health	0	Product is classified as non-hazardous per OSHA 1910.1200. Waterstop EC is defined by OSHA as an "article." A manufactured item that is formed to a specific shape or design during manufacture that does not release or result in exposure to a hazardous chemical under normal use conditions.
Flammability	0	
Reactivity	0	
Personal Protection		

SECTION 3: HAZARDS COMPONENTS

<u>Chemical Name:</u>	<u>CAS Number</u>	<u>% by Weight</u>	<u>SARA 313</u>	<u>Vapor Pressure (mm Hg@20°C)</u>	<u>LEL (@24°C)</u>
1. None					
Waterstop EC contains small amounts of crystalline silica as a naturally occurring component. Exposure to silica is not expected to occur under normal use conditions. If the product is abraded, however, appropriate protective measures should be taken to prevent exposure to silica.					
Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1966 (SARA) and 40 CFR Part 372, chemicals listed on the 313 List (40 CFR Part 373.65) are identified under the heading "SARA 313."					

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush with water to remove particulates.
SKIN CONTACT: Flush with water to remove particulates. Wash affected area with soap and water if available.
INHALATION: None normally required.
INGESTION: None normally required.

SECTION 5: FIRE AND EXPLOSIVES HAZARDS

FLASHPOINT: Not Applicable.
EXTINGUISHING MEDIA: Not Applicable.
CHEMICAL/COMBUSTION HAZARDS: None recognized.
PRECAUTIONS/PERSONAL PROTECTIVE EQUIPMENT: Not Applicable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Not applicable. Product is a solid.

SECTION 7: HANDLING AND STORAGE

SAFE HANDLING PROCEDURES: Avoid direct contact.
SAFE STORAGE: Prevent job-site damage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Chemical Name:</u>	OSHA				ACGIH			
	<u>PEL</u>	<u>PEL/CEILING</u>	<u>PEL/STEL</u>	<u>SKIN</u>	<u>TLV</u>	<u>TLV/CEILING</u>	<u>TLV/STEL</u>	<u>SKIN</u>
1. None								
ENGINEERING CONTROLS: None required under normal use conditions.								
PERSONAL PROTECTIVE EQUIPMENT: Safety glasses, chemical-resistant gloves. <i>N/E = Not Established</i>								

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A	VAPOR DENSITY: N/A	% VOLATILE BY VOLUME: N/A
EVAPORATION RATE: N/A	pH LEVEL: N/A	% VOLATILE BY WEIGHT: N/A
WEIGHT PER GALLON: N/A	PRODUCT APPEARANCE: Gray Solid	VOC CONTENT: N/A

SECTION 10: STABILITY/REACTIVITY

STABILITY: Stable. **HAZARDOUS POLYMERIZATION:** Will not occur.
CONDITIONS AND MATERIALS TO AVOID: None recognized.
HAZARDOUS DECOMPOSITION PRODUCTS: None recognized.

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Date of Preparation: 6/9/17

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SECTION 11: TOXICOLOGICAL INFORMATION

EYE CONTACT: This product may cause mechanical irritation of the eye.

SKIN CONTACT: This product may cause mechanical irritation of the skin.

INHALATION: None normally required.

INGESTION: Not anticipated to be an exposure route.

SIGNS AND SYMPTOMS: Symptoms of eye irritation include tearing, reddening, and swelling. Symptoms of skin irritation include redness and swelling. Gastrointestinal irritation symptoms include nausea, vomiting, and abdominal discomfort.

AGGRAVATED MEDICAL CONDITIONS: None recognized.

OTHER HEALTH EFFECTS: None normally required.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: N/E

DEGRADABILITY: N/E

BIOACCUMULATIVE POTENTIAL: N/E

SOIL MOBILITY: N/E

OTHER ADVERSE EFFECTS: None Recognized

SECTION 13: WASTE DISPOSAL INFORMATION

WASTE DISPOSAL INFORMATION: Product is classified as a non-hazardous waste. Landfill dispose.

SECTION 14: TRANSPORTATION INFORMATION

HAZARDOUS/NON-HAZARDOUS MATERIAL: Not regulated by DOT.

UN NUMBER: None

HAZARD CLASS: N/A

PACKING GROUP: N/A

UN PROPER SHIPPING NAME: N/A

ENVIRONMENTAL HAZARDS: None recognized.

BULK TRANSPORTATION INFORMATION: None

SPECIAL PRECAUTIONS: None

SECTION 15: REGULATORY INFORMATION

OTHER REGULATORY CONSIDERATIONS: None recognized.

SECTION 16: OTHER INFORMATION

PREPARATION DATE: 6/9/2017

PREPARED BY: Dave Carey

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injury from the use of this product described herein.

1. Identification of the Substance / Mixture and of the Company

1.1 PRODUCT IDENTIFICATION

Xypex Cementitious Products
Concentrate
Modified
DS-1 & DS-2
C-500 & C-500 NF
Admix C-1000 & C-1000 NF
Admix C-1000 Red
Admix C-2000 & C-2000 NF
Megamix I & Megamix II
FCM 80 (powder component)
Patch'n Plug
RestoraTop 50, 100 & 200

1.2 PRODUCT USE

Waterproofing and protection of concrete

1.3 COMPANY IDENTIFICATION

Xypex Chemical Corporation
13731 Mayfield Place
Richmond, B.C., Canada
Tel: 604-273-5265 or 800-961-4477
Fax: 604-270-0451
E-mail: info@xypex.com
Web: www.xypex.com

1.4 EMERGENCY TELEPHONE NUMBERS

During normal Pacific Standard Time (PST)
800-961-4477 or 604-273-5265
All other times, and in times of unavailability, contact your local emergency services.

2. Hazards Identification

2.1 CLASSIFICATION OF THE MIXTURE

2.1.1 Classification In Accordance With GHS (5th Edition)

Skin Irrit. 2: H315	Causes skin irritation.
Eye Dam. 1: H318	Causes serious eye damage.
Skin Sens. 1: H317	May cause an allergic skin reaction.
STOT SE 3: H335	May cause respiratory irritation.
STOT RE 2: H373	May cause damage to respiratory organs through prolonged or repeated exposure.

2.2 LABEL ELEMENTS: in Accordance with GHS (5th Edition)



DANGER

2.3 HAZARD STATEMENTS

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H373 May cause damage to respiratory organs through prolonged or repeated exposure.

2.4 PRECAUTIONARY STATEMENTS

P280 Wear protective gloves / protective clothing / eye protection / face protection & approved duct masks.

P260 Do not breathe dust.

P264 Wash thoroughly after handling.

2.5 RESPONSIVE PRECAUTIONARY STATEMENTS

P260 Do not breathe dust

P264 Wash thoroughly after handling

P280 Wear protective gloves / protective clothing / eye protection / face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor / physician.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

3. Composition / Information on Ingredients

Hazardous Ingredients	%	CAS. No.	Classification According to GHS (5th Edition)
Portland Cement	35 - 60%	65997-15-1	Skin Irrit. 2: H315 Skin Sens. 1: H317 Eye Dam. 1: H318 STOT SE 3: H335
Alkaline Earth Compounds (calcium dihydroxide)	5 - 20%	1305-62-0	Skin Irrit. 2: H315 Eye Dam. 1: H318 STOT SE 3: H335
Silica Sand (< 0.005 % (w/w) 10 µm respirable silica)	30 - 40%	14808-60-7	STOT RE 2: H373

4. First Aid Measures

4.1 DESCRIPTION OF FIRST AID MEASURES

When seeking medical advice take this safety data sheet with you.

INHALATION: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Dust in throat and nasal passages should clear spontaneously. If not, irrigate nose and throat with clean water for at least 20 minutes. Seek immediate professional medical attention.

EYE CONTACT: IF IN EYES – Quickly and gently blot away any dry powder. Irrigate cautiously with large amounts of water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub eyes as this may cause additional irritation or damage. Seek immediate professional medical attention if irritation persists.

SKIN CONTACT: Quickly and gently blot away any dry powder. Under running water, remove contaminated clothing, shoes and leather goods. Continuously flush contaminated area with lukewarm, gently flowing water for at least 60 minutes. If skin irritation or rash occurs, seek medical advice / attention.

INGESTION: Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. If conscious, wash out mouth with clean water. Drink 1 cup (240 - 300 ml) of water followed by dilution with milk if available. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing. Seek immediate professional medical assistance and contact a poison centre.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

ACUTE: Irritation to skin and mucous membranes.

DELAYED: Precautions should be taken to ensure that dust is not inhaled; however, long-term exposure to high levels of dust may result in damage to the lungs.

4.3 IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT

Move person to fresh air and away from exposure. Wash and clean eyes or skin as described in 4.1. Ensure eyewash facilities are available.

5. Firefighting Measures

5.1 EXTINGUISHING MEDIA

Xypex Cementitious Products are not flammable and are not subject to explosion.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

No hazardous combustion products.

Alkaline earth compounds will cause explosive decomposition of maleic anhydride, nitroalkanes and nitroparaffins, in the presence of water, form salts with inorganic salts and with inorganic bases. The dry salts are explosive.

5.3 ADVICE FOR FIREFIGHTERS

No need for specialist protective equipment for firefighters. Prior to using the product liaise with local fire authority for confirmation of best and most current form of firefighting equipment for the product.

6. Accidental Release Measures

6.1 PERSONAL PROTECTIVE MEASURES

Always wear full protective equipment as referred to under Section 8.2.2 to prevent any contamination of skin, eyes, respiratory system and personal clothing. Ensure adequate measures are in place to prevent airborne dust. Avoid airborne dust generation.

6.2 ENVIRONMENT PROTECTION MEASURES

Do not allow product into drains or water courses. Any spillages into watercourses must be alerted to the Environment Agency or other regulatory body.

6.3 METHODS FOR CLEANING UP

At all times avoid inhalation of product and contact with skin and eyes. Contain the spillage. Keep the material dry if possible. Wear full personal protective equipment when cleaning up, whatever method is chosen. When the product is in a dry state, avoid airborne dust generation when cleaning up. Avoid dry sweeping. Examples of cleanup methods when in dry state are:

(A) Using a vacuum cleaner (Industrial portable units), equipped with high efficiency particulate filters (HEPA filter) or equivalent technique.

(B) Wipe up the dust by mopping, wet brushing or water sprays or hoses with a fine mist to avoid the dust becoming airborne and remove slurry. Ensure drains are covered.

If the product has become wet, clean up and place in watertight container. Allow material to dry and solidify before disposal. Check current regulations before disposing of spillage, whether in dry state or not.

7. Handling & Storage

7.1 HANDLING

Avoid all types of dust generation; particularly the creation of respirable dust. At all times avoid inhalation of product and contact with skin and eyes. Carrying the product may cause back injuries, strains, sprains or the like. Use correct handling techniques to avoid injury. Use handling equipment and controls if necessary to avoid injury. If in doubt, contact your local health and safety body for further guidance on annual handling. Always wear sufficient and full protective equipment and suitable clothing when handling the product. General – During work avoid kneeling in the product. If kneeling is absolutely necessary then appropriate impervious waterproof personal protective equipment must be worn.

Ensure adequate ventilation and have ventilation equipment available if required due to possibility of generation of airborne dust.

Do not eat, drink or smoke when handling or applying product. Remove contaminated clothing and protective equipment before entering eating areas.

Avoid mishandling of pails of bags so as to prevent accidental bursting and creation of dust.

7.2 STORAGE

P402 + P232 + 233 Store in a dry place. Protect from moisture. Keep container tightly closed.

Store this product in a draught free environment, clear of the ground, avoiding humid conditions and extremes of temperature (minimum lower temperature of 7°C (45°F). The product should be used within 12 months of the date of production; product should not have been exposed to the atmosphere prior to use.

Any product that is stacked should be done so in a stable manner, and to a safe height. The stacking of product should be done in such a manner that it does not create any risk of product falling and accidentally bursting the packaging open.

This product contains Portland cement and thus Chromium (VI) and may produce an allergic reaction. The cement in this product may contain a reducing agent; the effectiveness of the reducing agent reduces with time.

8. Exposure Control / Personal Protection

8.1 CONTROL PARAMETERS

P260 Do not breathe dust.

P401 Store in original containers.

Substance	CAS No	Regulatory Limits			Recommended Limits	
		OSHA PEL		Cal/OSHA PEL (as of 4/26/13)	NIOSH REL (as of 4/26/13)	ACGIH 2015 TLV
		ppm	mg/m	8-hour TWA (ST) STEL (C) Ceiling	Up to 10-hour TWA (ST) STEL (C) Ceiling	8-hour TWA (ST) STEL (C) Ceiling
Calcium hydroxide	1305-62-0					
Total dust			15	5 mg/m ³	5 mg/m ³	5 mg/m ³
Respirable fraction			5			
Portland cement	65997-15-1					
Total dust			15	10 mg/m ³	10 mg/m ³	
Respirable fraction			5	5 mg/m ³	5 mg/m ³	1 mg/m (no asbestos and < 1% crystalline silica)
Silica: Crystalline	14808-60-7					0.025 (resp.) for a-quartz and cristobalite mg/m ³
Quartz (Respirable)		250(h) (%SiO ₂ +5)	10 mg/m (%SiO ₂ +2)	0.1 mg/m ³	Ca 0.05 mg/m ³	
Quartz (Total Dust)			30 mg/m (%SiO ₂ +2)			

Please refer to OSHA website for additional information.

Please note that the % of respirable crystalline silica in the silica sand is < 0.005 % but some processes and uses may increase this fraction.

8.2 EXPOSURE CONTROLS

8.2.1 Appropriate Engineering Controls

Provide adequate and suitable ventilation / ventilation equipment when handling product, to maintain dust below OES. All ventilation systems should be filtered before discharge to atmosphere. Isolate personnel from dusty areas.

Do not eat, drink or smoke when working with the product to avoid contact with skin or mouth. Immediately after working with the product, workers should wash or shower or use skin moisturizers. Remove contaminated clothing, footwear, watches, etc... and clean thoroughly before re-using.

8.2.2 Personal Protection Equipment

- P280 Wear protective gloves / protective clothing / eye protection / face protection.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.

Skin Protection – Use impervious, abrasion and alkali resistant gloves, enclosed rubber boots that resist powder and liquid penetration, closed long-sleeved impervious protective clothing that protects skin from contact. Close all fittings at opening.

Eye Protection – Wear safety goggles / glasses at all times when handling the product. Ensure the goggles / glasses have suitable side protection, are wide vision, and that there is no risk of product particles being able to enter the eye(s).

Respiratory Protection – Always use respiratory protection. Inhalation of product dust must be avoided at all times. Use an APPROVED NIOSH dust mask. Respiratory protective equipment must be in compliance with relevant national legislation. It is good practice to conduct fit-testing when selecting respiratory protective equipment.

Additional safety precautions may include the provision a shower facility.

8.2.3 Environmental Exposure Controls

According to available technology that limit dust dispersion into the environment.

9. Physical & Chemical Properties

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

<i>Appearance</i>	Grey particulate powder
<i>Odour</i>	None
<i>pH</i>	pH 9.1 – 9.8 (EPA method 2 parts water to 1 part powder by volume weight)
<i>Melting / Freezing Point</i>	Not applicable
<i>Initial Boiling Point and Range</i>	Not applicable
<i>Flash Point</i>	Not applicable
<i>Evaporation Rate</i>	Not applicable
<i>Flammability Upper / Lower flammability / Explosive Limits</i>	Not applicable
<i>Vapour Pressure</i>	Not applicable
<i>Vapour Density</i>	Not applicable
<i>Solubility</i>	Powder forms slurry with water, hardens over time
<i>Auto-ignition Temperature</i>	Not applicable
<i>Decomposition Temperature</i>	Alkaline earth compounds: 580°C
<i>Viscosity</i>	Not applicable
<i>Explosive Properties</i>	Not applicable
<i>Oxidizing Properties</i>	Not applicable
<i>Specific Gravity</i>	2.0 to 2.8 (water = 1)

10. Stability & Reactivity

10.1 REACTIVITY

Alkaline earth compounds react vigorously with strong acids. They also attack aluminum, lead and brass in the presence of moisture.

In the presence of water, calcium aluminates react chemically and harden to form stable calcium aluminate hydrates. This reaction is exo-thermal and may last up to 24 hours. The total heat released is < 500 kJ/kg.

10.2 CHEMICAL STABILITY

The product is chemically stable. When mixed with water it will harden, with time, into a stable mass. Products may liberate Carbon Monoxide or Carbon Dioxide.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Alkaline earth compounds will cause explosive decomposition of maleic anhydride, nitroalkanes and nitroparaffins, in the presence of water, form salts with inorganic salts and with inorganic bases. The dry salts are explosive.

Alkaline earth compound is stable up to 580°C. Alkaline earth compounds decompose with loss of water at approximately 580°C to form Calcium Oxide.

10.4 CONDITIONS TO AVOID

Avoid humid and drafty environments during storage. Also avoid storage temperatures below 7°C.

10.5 INCOMPATIBLE MATERIALS

Products are incompatible with strong acids.

It should be noted that the uncontrolled use of aluminum powder in wet cement should be avoided as hydrogen is produced.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

None known.

11. Toxicological Information

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Dermal Toxicity: The cement incorporated with the other ingredients in this product has been subject to a Limit test. (Limit test, rabbit, 24 hours contact, 2,000 mg/kg body weight – no lethality.) Calcium dihydroxide is not acutely toxic. Rabbit dermal LD50 > 2,500 mg/kg/bw.

Acute Oral Toxicity: May cause irritation to the gastrointestinal tract. Calcium dihydroxide is not acutely toxic. Rat oral LD50 > 2,000 mg/kg/bw.

Acute Inhalation Toxicity: The product may irritate the throat and respiratory tract. Inhalation may lead to irritation, inflammation or burns. Coughing, sneezing and shortness of breath may occur following exposures in excess of occupational exposure limits.

Skin Corrosion / Irritation: When skin is exposed to the product in its dry or wet state, thickening, cracking or fissuring of the skin may occur. Prolonged contact in combination with abrasion can cause severe burns.

Portland cement and alkaline earth compound are an irritant to skin. Ingredients are dermal irritants and dermatitis may develop following exposure.

Cement may have an irritating effect on moist skin (due to transpiration of humidity) after prolonged contact. Prolonged skin contact with wet cement or fresh concrete may cause serious burns because they develop without pain being felt. Repeated skin contact with wet cement may cause dermatitis.

This mixture contains < 2 ppm Chromium (VI), which is a skin irritant.

Serious Eye Damage / Irritation: Direct contact with product may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact either in dry or wet form may cause effects ranging from moderate eye irritation (eg. conjunctivitis or blepharitis) to chemical burns or blindness.

Skin Sensitization: This product contains Portland cement which is classified as a skin sensitizer.

Contact Dermatitis / Sensitizing Effects: Prolonged and repeated skin contact with Alkaline earth products may cause dermatitis.

Some individuals may exhibit eczema upon exposure to wet cementitious products, caused either by the high pH which induces irritant contact dermatitis, or by an immunological reaction to soluble Cr (VI) which elicits allergic contact dermatitis. The response may appear in a variety of forms ranging from a mild rash to severe dermatitis and is a combination of those two mechanisms. An exact diagnosis is often difficult to assess.

Germ Cell Mutagenicity: With the exception of Chromium (VI) (< 2 ppm) in the Portland cement, none of the individual substances in this mixture are classified as mutagenic.

Carcinogenicity: This product contains silica sand and this form of silica is not classified as carcinogenic due to its large particle size. However, prolonged and / or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated.

IARC (1997) has concluded that there is 'sufficient evidence for the carcinogenicity of inhaled crystalline silica in the form of quartz and cristobalite in certain industrial circumstances, but that the carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of polymorphs'.

Principle symptoms of lung fibrosis (commonly referred to as silicosis) are cough and breathlessness. Occupational exposure to respirable dust and respirable crystalline silica dust should be monitored and controlled.

Reproductive Toxicity: None of the individual substances in this mixture are classified as reproductive toxicants.

Specific Target Organ Toxicity – Single Exposure: Inhalation of dust can result in damage to the respiratory tract.

Specific Target Organ Toxicity – Repeat Exposure: Prolonged or repeated inhalation exposure may cause damage to the lungs, including chronic obstructive pulmonary disease (COPD).

Certain ingredients within these products do give potential for generation of respirable dust during handling and use. The dust may contain respirable crystalline silica.

Prolonged or frequent or excessive exposure to respirable crystalline silica dust, cement dust and alkaline earth products may cause respiratory disease, lung disease, lung and respiratory tract damage, ulceration and perforation of the nasal septum, pneumonitis and other serious bad health effects.

The excessive inhalation of crystalline silica dust may result in respiratory disease, including silicosis, pneumoconiosis and pulmonary fibrosis.

11.2 ASPIRATION HAZARD

No data available.

11.3 LIKELY ROUTES OF EXPOSURE

Inhalation: YES

Skin – Eyes: YES

Ingestion: NO – except in accidental cases

11.4 POTENTIAL HEALTH EFFECTS

The product may irritate and burn the throat and respiratory tract. Coughing, sneezing and shortness of breath may occur following exposures in excess of occupational exposure limits. Causes skin irritation and is a severe eye irritant.

Chronic exposure to respirable dust in excess of occupational exposure limits may cause coughing, shortness of breath and may cause chronic obstructive lung disease (COPD).

11.5 MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Inhaling dust may aggravate existing respiratory system disease(s) and / or medical conditions such as emphysema or asthma and / or existing skin and / or eye conditions.

12. Ecological Information

12.1 ECOTOXICITY

Do not allow the material to enter water course. If water is contaminated inform the relevant authorities immediately. The addition of a significant amount of cementitious products to water may cause a rise in the pH value and therefore may be toxic to aquatic life under certain circumstances.

Alkaline conditions may also have effects on vegetation.

The following toxicity values are available for calcium dihydroxide:

LC50 (96h) for freshwater / marine fish: 50.6 mg/l and 457 mg/l

EC50 (48h) for freshwater invertebrates: 49.1 mg/l

LD50 (96h) for marine water invertebrates: 158 mg/l

EC50 (72h) for freshwater algae: 184.57 mg/l and the NOEC is 48 mg/l

NOEC (14d) for marine water invertebrates: 32 mg/l

EC10/LC10 or NOEC for soil macro-organisms: 2,000 mg/kg soil dw and for micro-organisms is 12,000 mg/kg/ soil dw

NOEC (21d) for terrestrial plants: 1,080 mg/kg

12.2 PERSISTENCE AND DEGRADABILITY

Alkaline earth material is non bio-degradable; it reacts with atmosphere and dissolved carbon dioxide to form calcium carbonate (chalk).

12.3 BIO ACCUMULATIVE POTENTIAL

None of the substances in this mixture are known to bioaccumulate.

12.4 MOBILITY IN SOIL

Not known.

12.5 RESULTS OF PBT AND VPVB ASSESSMENT

This mixture does not contain any substances that are assessed to be PBT or vPvB.

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS

Avoid creation of airborne and respirable dust when disposing of product.

Product – Unused Residue or Dry Spillage

Pick up dry and put in containers. Mark container clearly. In case of disposal, harden with water to avoid dust creation. Dispose of at a licensed waste facility accepting cementitious and alkaline earth based waste. Dispose of all materials in accordance with current local regulations / legislation.

Product – Slurries

Allow to harden. Avoid entry into sewage and drainage systems or into bodies of water and dispose of as indicated for hardened product.

Product – After Addition of Water, Hardened

Dispose of at a licensed waste facility accepting cementitious and alkaline earth based waste. Dispose of all materials in accordance with current regulations / legislation. Avoid entry into sewage and drainage systems or into bodies of water.

13.2 PACKAGING

Completely empty packaging and process it according to current regulations / legislation.

14. Transportation Information

The product is not classified as hazardous for transport purposes.

15. Regulatory Information

GHS
WHMIS
OSHA

16. Other Information

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Number
OEL	Occupational Exposure Limit
TWA	Time Weighted Averages
PEL	Permissible Exposure Limit
MEL	Maximum Exposure Limit
LC	Lethal Concentration
LD	Lethal Dose
UEL	Upper Explosion Limit
LEL	Lower Explosion Limit
PPE	Personal Protective Equipment
EC50	Median effective concentration
LC50	Median lethal concentration
LD50	Median lethal dose
NOEC	No observable effect concentration
WHMIS	Workplace Hazardous Materials Information System

Hazard Statements In Full

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H373	May cause damage to respiratory organs through prolonged or repeated exposure.

Precautionary Statements In Full

P260	Do not breathe dust.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P272	Contaminated work clothing should not be allowed out of the workplace.
P264	Wash ... thoroughly after handling.

Responsive Precautionary Statements

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor / physician.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332+ P313	If skin irritation or rash occurs: Get medical advice / attention.
P362	Take off contaminated clothing and wash before reuse.
P501	Dispose of contents / container to ...
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P314	Get medical advice / attention if you feel unwell.

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