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## ANNUAL REVIEW

**SIGNATURE**

[illegible]

Mid South Floor Systems  
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# **SAFETY PROGRAM WITH HAZARD COMMUNICATION SDS**

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# AIR SAMPLING DATA

10/09/2023

AREA/OPERATION/EMPLOYEE	AIR CONTAMINANT	LIMIT <sup>1</sup>	SAMPLING RESULTS
Flatbed truck / Supporting bag breaker / Jose Sierra	Respirable Dust	5 mg/m <sup>3</sup> (PEL)	0.15 mg/m <sup>3</sup> (143 minutes)
	Respirable Crystalline Silica	50 ug/m <sup>3</sup> (PEL) 25 ug/m <sup>3</sup> (AL)	None Detected
Skid Steer / Dumping wet sand into mixer using skid steer / Jose Hernandez	Respirable Dust	5 mg/m <sup>3</sup> (PEL)	0.06 mg/m <sup>3</sup> (140 minutes)
	Respirable Crystalline Silica	50 ug/m <sup>3</sup> (PEL) 25 ug/m <sup>3</sup> (AL)	None Detected
Flatbed truck / Breaking bags of Gyp- Crete, Operating Mixer, and spraying water / Melvin Joel Hernandez Garcia	Respirable Dust	5 mg/m <sup>3</sup> (PEL)	0.81 mg/m <sup>3</sup> (149 minutes)
	Respirable Crystalline Silica	50 ug/m <sup>3</sup> (PEL) 25 ug/m <sup>3</sup> (AL)	None Detected

<sup>1</sup> Exposure limits: PEL - Permissible Exposure Limit (8-hour average); AL – Action Level (8-hour average)

**NOTE:** The measured exposures are expressed in milligrams of air contaminant per cubic meter of air (mg/m<sup>3</sup>) or in micrograms of air contaminant per cubic meter of air (ug/m<sup>3</sup>).



Complete Health Environmental and Safety Services

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West St Paul, MN 55118  
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www.chess-safety.com

21 September 2017

Tom Walters  
Max-Tech, Inc.  
920 Hamel Road  
Hamel, MN 55340

RE: Air monitoring for crystalline silica during flooring installations on 22 June 2017

Dear Tom:

We evaluated employee exposure to respirable crystalline silica during flooring installations done by Floor Technologies employees on 22 June 2017. We measured the exposure of the pump operator, pump helper, the Bobcat operator, a grinder, and an applicator.

No respirable crystalline silica was detected in any of the samples. All employees' time-weighted average exposures were well below OSHA's Action Level for all three forms of respirable crystalline silica.

We measured each task for the entire time it was done that day. Sampling began before employees started mixing and applying the Gypcrete or grinding on it. It ended once employees had finished cleaning up, just before they left the site. We do not expect that they had any additional exposure that day.

Task	Respirable crystalline silica	
	Time weighted average	Concentration during task
Pump operator	Less than 4.2 $\mu\text{g}/\text{m}^3$	Less than 12 $\mu\text{g}/\text{m}^3$
Pump helper	Less than 3.0 $\mu\text{g}/\text{m}^3$	Less than 17 $\mu\text{g}/\text{m}^3$
Bobcat operator	Less than 4.2 $\mu\text{g}/\text{m}^3$	Less than 12 $\mu\text{g}/\text{m}^3$
Applicator	Less than 3.6 $\mu\text{g}/\text{m}^3$	Less than 14 $\mu\text{g}/\text{m}^3$
Grinder	Less than 1.9 $\mu\text{g}/\text{m}^3$	See note below
OSHA Action Level	25 $\mu\text{g}/\text{m}^3$	
OSHA PEL	50 $\mu\text{g}/\text{m}^3$	

$\mu\text{g}/\text{m}^3$  is micrograms per cubic meter of air.

*Note:* The time the grinder spent grinding was short, so we can state that his exposure during the actual work was below 27  $\mu\text{g}/\text{m}^3$  but we cannot be more precise than that, because of the laboratory's detection limit. The actual sampling time ranged from 74 minutes, for the grinder, to 168 minutes for the pump operator.

The time weighted average is for an eight hour work day. This assumes any unsampled time had no exposure. Task is the exposure level only during the sampling time

Based on these results, employees do **not** have exposure to crystalline silica.

If you have any questions, please call me at 651-458-4930 or email me at [jkeyes@chess-safety.com](mailto:jkeyes@chess-safety.com).

Sincerely yours,

Janet L. Keyes, CIH, FAIHA

## **SAFETY POLICY**

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The Occupational Safety Health Act of 1970 clearly states our common goal of safe and healthful working conditions. The safety and health of our employees continues to be the first consideration in the operation of this business. Safety and health in our business must be a part of every operation. Without question it is every employee's responsibility at all levels. It is the intent of this company to comply with all laws. To do this we must constantly be aware of conditions in all work areas that can produce injuries. No employee is required to work at a job that he or she knows is not safe. Your cooperation in detecting hazards and controlling them is a condition of your employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct. The personal safety and health of each employee of this company is of primary importance. The prevention of occupationally induced injuries and illness is of such consequence that it will be given precedence over operating productivity. To the greatest degree possible, management will provide all mechanical and physical facilities required for personal safety and health in keeping with the highest standards. We will maintain a safety and health program conforming to the best practices of organizations of this type. To be successful, such a program must embody the proper attitudes toward injury and illness prevention on the part of supervisors and employees, but also between each employee and his or her co-workers. Only through such a cooperative effort can a safety program, in the best interest of all, be established and preserved. Our objective is a safety and health program that will reduce the number of injuries and illnesses to an absolute minimum, not merely in keeping with, but surpassing, the best experience of operations similar to ours. Our goal is zero accidents and injuries.

## **OUR SAFETY AND HEALTH PROGRAM WILL INCLUDE:**

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- ☐ Providing mechanical and physical safeguards to the maximum extent possible.
- ☐ Conducting a program of safety and health inspections to find and eliminate unsafe working conditions or practices, to control health hazards, and to comply fully with the safety and health standards for every job.
- ☐ Training all employees in good safety and health practices.
- ☐ Providing necessary personal protective equipment and instructions for its use and care.
- ☐ Developing and enforcing safety and health rules and requiring that employees cooperate with these rules as a condition of employment.
- ☐ Investigating, promptly and thoroughly, every accident to find out what caused it and to correct the problem so that it won't happen again.
- ☐ Setting up a system of recognition and awards for outstanding safety, service and performance.

We recognize that the responsibilities for safety and health are shared:

- ☐ The employer accepts the responsibility for leadership of the safety and health program, for its effectiveness and improvement, and for providing the safeguards required ensuring safe conditions.
- ☐ Supervisors are responsible for developing the proper attitudes toward safety and health in the selves and in those they supervise, and for ensuring that all operations are performed with the utmost regard or the safety and health of all personnel involved, including themselves.
- ☐ Employees are responsible for cooperation with all aspects of the safety and health program including compliance with all rules and regulations -and for continuously practicing safety while performing their duties.

**CODES OF SAFE PRACTICE**

1. All employees of this firm shall follow these safe practice rules, render every possible aid to safe operations and report all unsafe conditions or practices to the supervisor/employer.
2. Supervisors shall insist that employees observe and obey every rule, regulation and order necessary to the safe conduct of the work, and shall take such action necessary to obtain compliance.
3. Anyone known to be under the influence of alcohol or drugs shall not be allowed on the job while in that condition.
4. No one shall knowingly be permitted or required to work while his or her ability or alertness is impaired by fatigue, illness or other causes that might expose that individual or others to injury.
5. Employees should be alert to see that all guards and other protective devices are in proper places and adjusted, and shall report deficiencies. Approved protective equipment shall be worn in specified work areas.
6. Horseplay, scuffling and other acts, which tend to endanger the safety or wellbeing of employees, are prohibited.

7. Work shall be well planned and supervised to prevent injuries when working with equipment and handling heavy materials. When lifting heavy objects, employees should bend their knees and use the large muscles in the leg instead of the smaller muscles of the back. Back injuries are the most frequent and often the most persistent and painful type of work-place injury.
8. Workers shall not handle or tamper with any electrical equipment, machinery or air or water lines in a manner not within the scope of their duties, unless they have received instructions from their supervisor/employer.
9. All injuries shall be reported promptly to the supervisor so that arrangements can be made for medical and/or first aid treatment. First aid and fire extinguishers will be located behind rear seat of crew cabs and passenger area of flatbeds.

### SAFETY RULES

#### GENERAL

1. Any accidents or injuries that occur must be reported immediately to management and an accident report must be filled out ASAP.
2. If unsafe working condition is noticed, bring to attention of proper personnel (Foreman, Manager, etc.)
3. Wash thoroughly after handling injurious or poisonous substances.
4. Do not leave a potential safety hazard alone for someone else.
5. Gasoline shall not be used for cleaning purposes.
6. Eye protection must be worn where there is a reasonable probability of preventable injury when such equipment is used.
7. Eye protection must be worn when operating any power tool such as saws, powder actuated tools (grinders, etc.), and when using any release agents (sealers, primer, etc.).

#### SITE CONDITIONS

- Ensure proper loading areas are sufficient for access
- Do not pull trucks off Pavement unless instructed by a Foreman or Manager
- Keep vehicles on paved or hard surfaces at all times.



- Place dropped sand on level hard surface
- Maintain proper speed on all Job Sites.

### USE OF TOOLS AND EQUIPMENT

- ☐ No extension cord can be used if there are splices or bare spots in the cord. New, approved ends must be installed.
- ☐ All power tools, such as saws and drills must have a ground plug on them.
- ☐ Do not lift or lower portable electric tools by the power cords; use a rope.
- ☐ Do not leave the cords of these tools where cars or trucks will run over them.
- ☐ Do not operate any power tools with any flammable or explosive materials near by

### MACHINERY AND VEHICLES

- ☐ Operators must be trained and qualified
- ☐ Perform all DOT required inspections of Vehicles
- ☐ Check Fluids of Vehicles and Equipment daily
- ☐ Do not put equipment in excess mud or flooded areas
- ☐ Do not bumper pull equipment or trucks into or out of a Site
- ☐ Do not operate any equipment unless proper operating instructions have been given to you.
- ☐ Do not attempt to operate machinery or equipment without special permission unless it is one of your regular duties
- ☐ All safety guards must be in place before operation of a piece of equipment
- ☐ Before any repair or maintenance can be done, the equipment must be stopped and motors turned off
- ☐ Make sure all guards are in place and operational on the pumps and trucks
- ☐ Loose or frayed clothing, dangling ties or jewelry, finger rings, etc., must not be worn around moving machinery or other places they can get caught.
- ☐ Machinery shall not be repaired or adjusted while in operation.

### JOB SITE RULES

- ☐ Hard hats shall be worn in areas where there is possible danger of head injuries, flying or falling objects or electrical shock or burns.
- ☐ Hard hats shall be worn where a job site has been designated as a HARD HAT JOB
- ☐ Boots must be worn on all jobs.
- ☐ Do not throw material, tools or other objects from heights until proper precautions are taken to protect others from the falling object hazard.
- ☐ Check all guard rails as you go up where you are working

- When removing materials, nails must be removed so as not to create a safety hazard.
- Be aware of dangerous weather conditions such as lightning or strong winds.

#### OPERATION OF UNDERLAYMENT PUMPS

- Eye protection must be worn.
- Inspect pump hydraulic lines and grease fittings
- Ensure proper water pressure is reached to operate pump
- Keep hands away from mixing hopper.
- Mixing hopper grate must be on
- Chain guards must be in place
- It is recommended to wear a dust mask when mixing underlayment
- All hose couplings must be in complete working condition to ensure proper pressure management
- All materials must be labeled and in proper containers
- Do not open latex tank under pressure
- Grease Pump every 100 bags as required
- Clean hoses and clams after each use to reduce pack offs and blown hoses
- Reduce pressure on hose due to pack off before uncoupling hose

#### OPERATION OF CONCRETE PUMPS

- Do not operate pump with pump hood up
- Do not put hands in pump when motor is running
- Clean hoses and clams after each use to reduce pack offs and blown hoses
- Reduce pressure on hose due to pack off before uncoupling hose
- Do not leave pump unattended when it is in operation

MID SOUTH FLOOR SYSTEMS, INC  
800-831-6987

## PPE WRITTEN PLAN

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## **PERSONAL PROTECTIVE EQUIPMENT (PPE) PROGRAM**

This written program documents steps Mid South Floor Systems has taken to minimize injury resulting from various occupational hazards present at our construction sites by protecting workers through the use of PPE when the hazards cannot be eliminated.

The safety and health manager is the program coordinator, acting as the representative of the plant manager, who has overall responsibility for the program. The safety and health manager will designate appropriate plant supervisors to assist in training employees and monitoring their use of PPE. This written plan is kept in MSF office. Joshua Manning, safety manager will review and update the program as necessary. Copies of this program may be obtained from Joshua Manning, at Mid South Floor Systems, Inc. Offices

We at Mid South Floor Systems believe it is our obligation to provide a hazard free environment to our employees. Any employee encountering hazardous conditions must be protected against the potential hazards. The purpose of protective clothing and equipment (PPE) is to shield or isolate individuals from chemical, physical, biological, or other hazards that may be present in the workplace. (See separate documents for respiratory protection and hearing concentration programs.)

Establishing an overall written PPE program detailing how employees use PPE makes it easier to ensure that they use PPE properly in the workplace and document our PPE efforts in the event of an OSHA inspection. Mid South Floor Systems, Inc. PPE program covers:

- Purpose
- Hazard assessment
- PPE selection
- Employee training
- Cleaning and maintenance of PPE
- PPE specific information

If after reading this program, you find that improvements can be made, please contact the safety and health manager, Joshua Manning. We encourage all suggestions because we are committed to the success of our Personal Protective Equipment Program. We strive for clear understanding, safe behavior} and involvement in the program from every level of the company.

## **PURPOSE OF PROGRAM**

The basic element of any PPE program is an in depth evaluation of the equipment needed to protect against the hazards at the workplace; this is the initial hazard assessment for which written documentation is required. Two basic objectives of any PPE program should be to protect the wearer from incorrect use and/or malfunction of PPE. The purpose of this Personal Protective Equipment (PPE) Program is to document the hazard assessment, protective measures in place, and PPE in use at this company. PPE devices are not to be relied on as the only means to provide protection against hazards, but are used in conjunction with guards, engineering controls, and sound manufacturing practices. If possible, hazards will be abated first through engineering controls with PPE to provide protection against hazards that cannot reasonably be abated otherwise.

## **HAZARD ASSESSMENT**

In order to assess the need for PPE the following steps are taken:

1. The Safety Manager} with other appropriate employees Rick Manning} identifies job classifications where exposures occur or could occur. The Safety Manager or designee examines the following records to identify and rank jobs according to exposure hazards:
  - Injury/illness records
  - First aid logs
2. The Safety Manager conducts a walk through survey of workplace areas where hazards exist or may exist to identify sources of hazards to employees. They consider these basic hazards categories:
  - Impact
  - Heat or extreme cold
  - Penetration
  - Harmful dust
  - Compression (rollover)
  - Light (optical) radiation
  - Chemical
  - Electrical



During the walk through survey the Safety Manager observes and records the following hazards along with PPE currently in use (type and purpose):

- Sources of motion; .i.e. machinery or processes where any movement of tools} machine elements or particles could exist} or movement of personnel that could result in collision with stationary objects: Shop-grinding} chipping, welding, flame cutting, falling parts} prying and pinch hazard Field-grinding, mixing, spraying, falling objects, sharp materials, chipping, flying debris.
  - Sources of high temperatures that could result in burns, eye injury or ignition of protective equipment} etc., are welding
  - Types of Chemical exposures are: Shop-Battery acid, Field-Mixing and applying primers and epoxy's
  - Sources of harmful dust are mixing underlayment, grinding concrete, sanding underlayment
  - Sources of light radiation, i.e., welding} brazing, cutting} furnaces, heat treating, high intensity lights, etc. are: Welding
  - Sources of falling objects or potential for dropping objects: Field-other workers dropping objects from upper floors of building
  - Sources of sharp objects that might pierce the feet or cut the hands: metal flashing, metal lath, nails
  - Sources of rolling or pinching objects that could crush the feet Shop-parts slipping or dropped during installation
  - Layout of workplace and location of co-workers: no known hazards
  - We have not identified any electrical hazards.
3. Following the walk through survey, the Safety Manager organizes the data and information for use in the assessment of hazards to analyze the hazards and enable proper selection of protective equipment.
  4. An estimate of the potential for injuries is now made. Each of the basic hazards is reviewed and a determination made as to the frequency, type, level of risk, and seriousness of potential injury from each of the hazards found. The existence of any situations where multiple exposures occur or could occur is considered.
  5. The Safety Manager documents the hazard assessment via a written certification that

identifies the workplace evaluated} the person certifying that the evaluation has been performed, the date(s) of the hazard assessment, and that the document is a certification of hazard assessment.

### **Selection Guidelines**

Once any hazards have been identified and evaluated through hazard assessment, the general procedure for selecting protective equipment is to:

1. Become familiar with the potential hazards and the type of protective equipment (PPE) that are available} and what they can do,
2. Compare types of equipment to the hazards associated with the environment
3. Select the PPE that meets selection requirements found in the OSHA regulations and ensures a level of protection greater than the minimal required to protect employees from hazards.
4. Fit the user with proper, comfortable} well-fitting protection and instruct employees on care and use of the PPE, It is very important that the users are aware of all warning labels for and limitations of their PPE. (See the Employee Training guidelines outlined in the next section of this program for a more detailed description of training procedures.)

It's the responsibility of the Safety Manager to reassess the workplace hazard situation as necessary, to identify and evaluate new equipment and processes, to review accident records, and reevaluate the suitability of previously selected PPE. This reassessment will take place as needed, but at least once a year.

### **Elements that should be considered in the reassessment include:**

- Adequacy of PPE program
- Accidents and illness experience
- Levels of exposure (this implies appropriate exposure monitoring)
- Adequacy of equipment selection
  
- Number of person hours that workers wear various protective ensembles
- Adequacy of training/fitting of PPE
- Program costs
- The adequacy of program records
- Recommendation for program improvement and modification
- Coordination with overall safety and health program

## **EMPLOYEE TRAINING**

The Safety Manager/supervisor provides training for each employee who is required to use personal protective equipment. Training includes:

- When PPE is necessary
- What PPE is necessary
- How to wear assigned PPE
- Limitations of PPE
- The proper care, maintenance, useful life, and disposal of assigned PPE

Employees must demonstrate an understanding of the training and the ability to use the PPE properly before they are allowed to perform work requiring the use of the equipment.

Employees are prohibited from performing work without donning appropriate PPE to protect them from the hazards they will encounter in the course of that work.

If the Safety Manager has reason to believe an employee does not have the understanding or the skill required the employer must retrain. Since an employee's supervisor is in the best position to observe any problems with PPE use by individual employees, the Safety Manager will seek this person's input when making this determination. Circumstances where retraining may be required include changes in the workplace or changes in the types of PPE to be used, which would render previous training obsolete. Also, inadequacies in an affected employee's knowledge or use of the assigned PPE which indicates that the employee has not retained the necessary understanding or skills, would require retraining.

The Safety Manager certifies in writing that the employee has received and understands the PPE training because failure to comply with company policy concerning PPE can result in OSHA citations and fines as well as employee injury, an employee who does not comply with this program will be disciplined for noncompliance according to the following schedule: Failure to follow any of the MSF safety rules can result in varying penalties ranging from a written warning, single day suspension and up to immediate termination. The MSF management team will consider each incident on a case by case basis and determine what penalty will be assigned

- Verbal warning for the first offense accompanied by retraining
- Written reprimand for the second offense that goes in the employee's permanent record

- Suspension without pay for a third offense and documentation in the permanent record
- Dismissal as a last resort.

## **CLEANING AND MAINTENANCE**

It is important that all PPE be kept clean and properly maintained by the employee to whom it is assigned. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. PPE is to be inspected, cleaned, and maintained by employees at regular intervals as part of their normal job duties so that the PPE provides the requisite protection. Supervisors are responsible for ensuring compliance with cleaning responsibilities by employees. If PPE is for general use, the Safety Manager has responsibility for cleaning and maintenance. If a piece of PPE is in need of repair or replacement it is the responsibility of the employee to bring it to the immediate attention of his or her supervisor or the Safety Manager. It is against work rules to use PPE that is in disrepair or not able to perform its intended function. Contaminated PPE that cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.

## **PPE SPECIFIC INFORMATION**

### ***Eye and Face protection-Goggles and face Shields***

It is the policy of the company that as a condition of employment all regular full time, part time, and temporary employees working in designated work areas and/or job assignments are required to wear ANSI approved goggles/face shields to help prevent eye and face injuries, including those resulting from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or light radiation, for example. Employees in the following designated work areas are required to wear goggles/face shields:

- Work Area
- Anywhere on a jobsite or in the shop that involves grinding, chipping, or sanding. Any operations involving the use of pressurized spray equipment
- Work Area Hazard
- High speed flying pieces of sand, concrete, and metal
- Pressurized liquid chemicals
- Type of goggles/face shield
- ANSI approved safety glasses and or goggles, full face shield

Employees from temporary work agencies and contractors are required to wear goggles/face shields if assigned to work in the designated work areas.

All supervisors and managers are responsible for ensuring employees under their charge are in compliance with this policy.

All employees who work in designated work areas and/or job assignments are responsible for

wearing company provided goggles/face shields to comply with this policy. Failure to comply will result in disciplinary action up to and including discharge.

### ***Foot Protection-Safety Shoes***

It is the policy of the company that as a condition of employment, all regular full time, part time and temporary employees working in designated work areas and/or job assignments are required to wear safety shoes to help prevent foot injuries, ankle injuries, slips, and falls.

Employees in the following designated work areas are required to wear ANSI-approved safety shoes or safety shoes that have been demonstrated to be equally effective:

- Work area
- All areas including the shop
- Hazard
- Slippery and or hazardous footing conditions} heavy objects falling onto feet, nails and other penetration risks
- Type of safety shoe
- Leather work boots with aggressive tread pattern and non-slip sole material, steel toes

Employees from temporary work agencies and contractors are required to wear safety shoes if assigned to work in the designated work areas. It is the responsibility of the agency and/or contractor to ensure the employee reports to his or her temporary assignment at this company wearing approved safety shoes.

Those employees who work in non-designated areas of the company and vendors and visitors will be allowed to walk through the designated work areas without safety shoes as long as they remain in outlined aisles or walkways

All employees who work in designated work areas and/or job assignments are responsible for purchasing and wearing safety shoes to comply with this policy. Failure to comply will result in disciplinary action up to and including discharge. Purchase of shoes are done by the employee

Personnel are responsible for informing new employees who are assigned to the designated work areas of the safety shoe policy and the procedures for obtaining them. The new employee is responsible for reporting to his or her first day of work wearing approved safety shoes.

### ***Hand protection --gloves***



It is the policy of the company that as a condition of employment, all regular full time, part time, and temporary employees working in designated work areas and/or job assignments are required to wear gloves to help prevent hand injuries, including cuts, burns, chemical exposure, for example.

Employees in the following designated work areas are required to wear protective gloves:

- Work area
- Handling and cutting metal flashing and lath,
- Grinding or chipping concrete and metal
- Welding or flame cutting steel.
- Cuts and lacerations, puncture wounds} burns and abrasions
- Type of glove
- Leather work gloves

Employees from temporary work agencies and contractors are required to wear protective gloves if assigned to work in the designated work areas.

All supervisors and managers are responsible for ensuring employees under their charge are in compliance with this policy.

All employees who work in designated work areas and/or job assignments are responsible for wearing company provided gloves to comply with this policy. Failure to comply will result in disciplinary action up to and including discharge.

All employees required to wear protective gloves must routinely inspect and properly care for their assigned gloves (if the gloves are not disposable).

### ***Head protection --Hard hats***

It is the policy of the company that as a condition of employment, all regular full time, part time, and temporary employees working in designated work areas and/or job assignments are required to wear ANSI approved hard hats to help prevent head injuries, including those resulting from falling objects, bumping the head against a fixed object, or electrical shock.

Employees in the following designated work areas are required to wear hard hats:

- Work-area
- All jobsite functions and operations
- Hazard
- Falling objects, overhead protrusions
- Type of hard hat
- ANSI approved standard hard hat

Employees from temporary work agencies and contractors are required to wear hard hats if assigned to work in the designated work areas. All supervisors and managers are responsible for ensuring employees under their charge are in compliance with this policy.

All employees who work in designated work areas and/or job assignments are responsible for wearing company provided hard hats to comply with this policy. Failure to comply will result in disciplinary action up to and including discharge.

All employees required to wear hard hats must routinely inspect and properly care for their hard hats

**MID SOUTH FLOOR SYSTEMS, INC.**  
**800-8316987**

**FALL PROTECTION PROGRAM**  
**(COMMERCIAL / RESIDENTIAL)**

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### TRAINING

#### **POLICY:**

It is the policy of Mid South Floor Systems to take all practical measures possible to prevent employees from being injured by falls from heights. We will take necessary steps to eliminate} prevent and control fall hazards. We will comply fully with the OSHA/VOSH Fall Protection Standard (CPR 1926} Subpart M, Fall Protection). This policy will follow the OSHA standard for potential falls from heights of at least 6 feet. First considerations will be given to the elimination

of all hazards. If a fall hazard cannot be eliminated} effective fall protection will be planned implemented and monitored to control the risks of injury due to falling. All personnel exposed to potential falls from heights will be trained to minimize the exposures. Fall protection equipment will be provided and its use required by all employees. Foreman will be responsible for implementation of a fall protection plan for their jobsite.

## **FALL HAZARD IDENTIFICATION AND EVALUATION:**

The superintendent/foreman on each jobsite will be responsible for identifying fall hazards on their jobsite. The superintendent/foreman will evaluate each situation or work procedure where employees may be exposed to a fall of 6 feet or more. The superintendent/foreman will be responsible for developing a plan to eliminate the exposures} if possible} or to select the appropriate fall protection systems and/or equipment.

## **EXAMPLES OF SITUATION REQUIRING FALL PROTECTION:**

The following are examples of situations where fall protection would be needed. This Listing is by no means complete, and there are many other situations where a fall of 6 feet or more is possible. It should be noted that ladders and scaffolding are not included in this list as they are covered by different OSHA standards and other requirements of our safety program.

### **Wall Openings**

Each employee working on, at, above, or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is 6 feet (1.8 meters) or near above lower levels and the inside bottom edge of the wall opening is less than 39 inches (1 meter) above the walking/working surface must be protected from falling by the use of a guardrail system} a safety net system} or a personal fall arrest system.

### **Holes**

Personal fall arrest systems} covers or guardrail systems shall be erected around holes (including skylights) that are more than 6 feet (1.8 meters) above lower levels.

### **Leading Edges**

Each employee who is constructing a leading edge 6 feet (1.8 meters) or more above lower levels shall be protected by guardrail systems} safety net systems, or personal fall arrest systems.

### **Hoist Areas**

Each employee in a hoist area shall be protected from falling 6 feet (1.8 meters) or more by guardrail systems or personal fall arrest systems. If guard rail systems (or chain gate or guardrail) or portions thereof must be removed to facilitate hoisting operations} as during the

landing of materials} and a worker must lean through the access opening or out over the edge of the access opening to receive or guide equipment and materials} that employee must be protected by a personal fall arrest system.

### **Precast Concrete Erection and Residential Construction**

Each employee who is 6 feet (1.8 meters) or more above lower levels while erecting pre-cast concrete members and related operations such as grouting of pre-cast concrete members and each employee engaged in residential

### **Ramps, Runways, and other Walkways**

Each employee using ramps} runways and other walkways shall be protected from falling 6 feet (1.8 meters) or more by guardrail systems.

### **Low-Slope Roofs**

Each employee engaged in roofing activities on low-slope roofs with unprotected sides and edges 6 feet (1.8 meters) or more above lower levels shall be protected from falling by guardrail systems} safety net systems} personal fall arrest systems or a combined of a warning line systems and guardrail system., warning line system and personal fall arrest system, or warning line system and safety monitoring system. On roofs 50 feet (15.24 meters) or less in width, the use of a safety monitoring system without a warning line system is permitted.

### **Steep Roofs**

Each employee on a steep roof with unprotected sides and edges 6 feet or more Above the lower levels shall be protected by guardrail systems with toe-boards, safety net systems or personal fall arrest systems. Construction shall be protected by guardrail systems, or personal fall arrest systems.

### **Controlled Access Zones**

A controlled access zone is a work area designated and clearly marked in which certain types of work (such as overhand bricklaying may take *place* without the use of conventional fall protection systems -guardrail, personal arrest or safety net to protect the employees working in the zone.

Controlled Access Zones are used to keep out workers other than those authorized to enter work areas from which guardrails have been removed. Where there are no guardrails masons are the only workers allowed in controlled access zones.



Controlled Access Zones, when created to limit entrance to areas where leading edge work and other operations are taking place, must be defined by a control line or by any other means that restrict access. Control lines shall consist of ropes, wires, tapes or equivalent materials and supporting stanchions and each must be:

- Flagged or otherwise clearly marked at not more than 6-foot intervals with high-visibility material.
- Rigged and supported in such a way that the lowest point (including sag) is not less than 39 inches (1 meter) from the walking/working surface and the highest point is not more than 45 inches (1.3 meters) -nor more than 50 inches (1.3 meters) when overhand bricklaying operations are being performed from walking/working surface.
- Strong enough to sustain stress of not less than 200 pounds (.088 kilonewtons). Control lines shall extend along the entire length of the unprotected or leading edge ...Control lines shall be approximately parallel to the unprotected or leading edge.
- Control lines also must be connected on each side to a guardrail system or wall.

When control lines are used, they shall be erected not less than 6 feet, nor more than 25 feet (7.6 meters) from the unprotected or leading edge, except when precast concrete members are being erected. In the latter case} the control line is to be erected not less than 6 feet nor more than 60 feet (18 meters) or half the length of the member being erected, whichever is less, from the leading edge.

Controlled Access Zones when used to determine access to area where overhand bricklaying and related work are taking place are to be defined by a control line erected not less than 10 feet (3 meters) nor more than 15 feet (4.6 meters) from the working edge. Additional control lines must be erected at each end to enclose the controlled access zone.

Only employees engaged in overhand bricklaying or related work, are permitted in the controlled access zones. On floors and roofs where guardrail systems are not in place prior to the beginning of overhand bricklaying operations, controlled access zones will be enlarged as necessary to enclose all points of access, material handling areas} and storage areas.

On floors and roofs where guardrail systems are in place, but need to be removed to allow overhand bricklaying work or leading edge work to take place. That portion, only of the guardrail is necessary to accomplish that day's work shall be removed.

## **FALL PROTECTION SYSTEMS FALL**

When there is a potential fall of 6 feet or more} we will utilize one or more of the following means of providing protection:

### **Guardrail Systems**

Guardrail systems must meet the following criteria: Top-rails and mid-rails of guardrail systems must be at least 1/4 inch (0.6 centimeters) nominal diameter or thickness to prevent cuts or lacerations. If wire rope is used for top-rails, it must be flagged at not more than 6 foot intervals with high-visibility material. Steel and plastic bannings cannot be used as top-rails or mid-rails. Manila, plastic or synthetic rope used for top-rails or mid-rails must be inspected as frequently as necessary to ensure strength and stability.

The top edge height of top-rails or (equivalent) guardrails must be 42 inches (1.1 meter) plus or minus 3 inches (8 centimeters) above the walking/working level. When workers are using stilts the top edge height of the top rail, or equivalent member, must be increased an amount equal to the height of the stilts.

Screens, mid-rails, mesh intermediate vertical members/ or equivalent intermediate structural members must be installed between the top edge of the guardrail system and the walking/working surface when there are no walls or parapet walls at least 21 inches (53 centimeters) high. When mid-rails are used, they must be installed at a height midway between the top edge of the guardrail system and the walking/working level. When screens or mesh are used, they must extend from the top rail to the walking/working level and along the entire opening between top rail supports. Intermediate members/ such as balusters when used between posts, shall not be more than 19 inches (48 centimeters) apart.

Other structural members, such as additional mid-rails and architectural panels shall be installed so that there are no openings in the guardrail system more than 19 inches (48 centimeters).

The guardrail system must be capable of withstanding a force of at least 200 pounds (890 newtons) applied within 2 inches of the top edge in any outward or downward direction. When the 200 pound test is applied in a downward direction the top edge of the guardrail must not deflect to a height less than 39 inches (1 meter) above the walking/working level.

Mid-rails, screens mesh intermediate vertical members/ solid panels/ and equivalent structural members shall be capable of withstanding a force of at least 150 pounds (667 newtons) applied in any downward or outward direction at any point along the mid-rail or other member.

Guardrail systems shall be surfaced to protect workers from punctures or lacerations and to prevent clothing from snagging.

The ends of the top-rails and mid-rails must not overhang terminal posts, except where such overhang does not constitute a projection hazard.

When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section must be placed across the access opening between guardrail sections when hoisting

operations are not taking place.

At holes, guardrail systems must be set up on all unprotected sides or edges. When holes are used for the passage of materials, the hole shall have not more than two sides with removable guardrail sections. When the hole is not in use, it must be covered or provided with guardrails along all protected sides or edges.

If guard rail systems are used around holes that are used as access points (such as ladder ways)} gates must be used or the point of access must be offset to prevent accidental walking into the hole.

If guard rails are used at unprotected sides or edges of ramps or runways} they must be erected on each unprotected side or edge.

### **Personal Fall Arrest Systems**

These consist of an anchorage, connectors} and a body belt or body harness and may include a deceleration device lifeline, or suitable combinations. If a personal fall arrest system is used for fall protection, it must do the following:

- Limit maximum arresting force on an employee to 900 pounds (4 kilonewtons) when used with a body belt.
- Limit maximum arresting force on an employee to 1,800 pounds (8 kilonewtons) when used with a body harness.
- Be rigged so than an employee can neither free fall more than 6 feet, nor contact any lower lever:
  - Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet (1.07 meters) and
  - Have sufficient strength to withstand twice the potential impact energy of an employee free falling distance of 6 feet or the free fall distance permitted by the system, whichever is less.

### **USE OF BODY BELTS FOR FALL ARREST IS PROHIBITED AND A FULL BODY HARNESS IS REQUIRED.**

Personal fall arrest systems must be inspected prior to each use for wear damage, and other deterioration. Defective components must be removed from service.

## **Positioning Device Systems**

These body belts or body harness systems are to be set up so that workers can free fall no farther than 2 feet (0.6 meters). They' shall be secured to an anchorage capable of supporting at least twice the potential impact load of any employee's fall or 3,000 pounds (13.3 kilonewtons) whichever is greater.

## **Safety Monitoring Systems**

When no other alternative fall protection has been implemented, the employer shall implement a safety monitoring system. Employers must appoint a competent person to monitor the safety of workers and the employer shall ensure that the safeties monitor:

- Is competent in the recognition of fall hazards.
- Is capable of warning workers of fall hazard dangers and in detecting unsafe work practices.
- Is operating on the same walking/working surfaces of the workers and can see them.
- Is close enough to work operations to communicate orally with workers and has no other duties to distract from the monitoring function.

Mechanical equipment shall not be used or stored in areas where safety monitoring systems are being used to monitor employees engaged in roofing operations on low-sloped roofs.

No worker, other than one engaged in roofing work (on low-sloped roofs) or one covered by a Fall protection plan, shall be allowed in an area where an employee is being protected by a safety monitoring system.

All workers in a controlled access zone shall be instructed to promptly comply with fall hazard Warnings issued by safety monitors.

## **Safety Net Systems**

Safety nets must be installed as close as practical under the walking/working surface on which employees are working and never more than 30 feet (9.1 meters) below such levels. Defective nets shall not be used. Safety nets shall be inspected at least once a week for wear, damage and other deterioration. Safety nets shall be installed with sufficient clearance underneath to prevent contact with the surface or structure below.

Items that have fallen into safety nets include, but are not restricted to, materials, scrap,

equipment, and tools must be removed as soon as possible and a lease before the next work shift.

## **Warning Line Systems**

Warning line systems consist of ropes} wires, chains, and supporting stanchions and are set up as follows:

- Flagged at not more than 6 foot intervals with high-visibility material.
- Rigged and supported so that the lowest point including sag is no less than 34 inches (0.9 meters) from the walking/working surface and its highest point is no more than 39 inches (1 meter) from the walking/working surface.
- Stanchions, after being rigged with warning lines, shall be capable of resisting, without tipping over, a force of at least 16 pounds (17 newtons) applied horizontally against the stanchion, 30 inches (0.8 meters) above the walking/working surface, perpendicular to the warning line and in the direction of the floor, roof or platform edge.
- The rope, wire, or chain shall have a minimum tensile strength of 500 pounds (2.22 kilonewtons) and after being attached to the stanchions must support without breaking the load applied to the stanchions as prescribed above.
- Shall be attached to each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in the adjacent section before the stanchion tips over.

Warning lines shall be erected around all sides of roof work areas. When mechanical equipment is being used, the warning line shall be erected not less than 6 feet from the roof edge parallel to the direction of mechanical equipment operation, and not less than 10 feet (3 meters) from the roof edge perpendicular to the direction of mechanical equipment operation.

When mechanical equipment is not being used, the warning line must be erected not less than 6 feet from the roof edge.

## **Covers**

Covers located in roadways and vehicular lanes must be able to support at least twice the maximum axle load of the largest vehicle to which the cover might be subjected. All other covers must be able to support at least twice the weight of employees} equipment and

materials that may be imposed on the cover at any one time. To prevent accidental displacement resulting from wind, equipment, or worker's activities, all covers must be secured. All covers shall be color coded or bear the markings "HOLE" or "COVER".

### **Protection from Falling Objects**

When guardrail systems are used to prevent materials from falling *from* one level to another, any opening must be small enough to prevent passage of potential falling objects. No materials or equipment except masonry and mortar shall be stored within 4 feet (1.2 meters) of working edges. Excess mortar, broken or scattered masonry units, and all other materials and debris shall be kept clear of the working area by removal at regular intervals. During roofing work, materials and equipment shall not be stored within 6 feet of a roof edge unless guardrails are erected at the edge and materials piled, grouped or stacked near a roof edge must be stable and self-supporting.

### **TRAINING**

Employees will be trained in the following areas:

1. The nature of all hazards in the work area.
2. The correct procedures for erecting, maintaining, disassembling and inspecting fall protection systems.
3. The use and operation of controlled access zones and guardrail, personal fall arrest, safety net, warning line, and safety monitoring systems.
4. The role of each employee in the safety monitoring system when the system is in use.
5. The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs.
6. The correct procedures for equipment and materials handling and storage and the erection of overhead protection.

MID SOUTH FLOOR SYSTEMS, INC.  
800-831-6987

SKIDSTEER SAFETY PROGRAM

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SAFETY INSTRUCTIONS

SAFETY PRECAUTIONS

SKIDSTEER SAFETY SIGN IN SHEET

## **SAFETY INSTRUCTION**

1. Operators must be trained and qualified.
2. Operator should start in an area without bystanders and use all the controls until he can operate the loader safely under all conditions for his work area.
3. Always fasten seat belt and lower seat bar before operating.
4. Keep both feet on pedals while operating machine.
5. Do not use machine in atmosphere containing explosive gas.
6. Do not exceed rated operating capacity. Excessive load can cause tipping or loss of control.
7. Before you leave the operator's seat:
  1. Lower the lift arms; put flat on the ground.
  2. Stop the engine.
  3. Engage the parking brake.
8. Keep the lift arms as low as possible.
9. Do not travel or turn with the lift arms up
10. Turn on level ground.
11. Go up and down slopes, not across them.
12. Keep the heavy end of the machine uphill.
13. Never dump over an obstruction that can enter the operator cab.
14. Keep personnel clear of loader working area.
15. Never use as personal lift or n1over.
16. Never lift a load over a person.
17. Never stop or start suddenly or loss of control could occur.
18. Check operation fluids daily.
19. Always look before backing up.

## **SAFETY PRECAUTIONS**

1. Personal protective equipment required by State and Federal OSHA must be worn when using this equipment. If you must operate in a building, be positive there is adequate ventilation.
2. Stop and cool the engine before adding fuel.
3. Always check for underground utility lines before digging and stay clear.
4. Avoid loose fill, rocks and holes as they can be dangerous for loader operation or movement.



# Mid South Floor Systems Hazard Communication Program for OSHA Standard 29CFR 1910.1200. (Hazcom 2012 / GHS)

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**Purpose:** This Hazard Communication Program is intended to ensure compliance with Occupational Health and Safety Administration (OSHA) requirements for the adoption of the UN Globally Harmonized System (Hazcom 2012 / GHS) and to provide a safe work environment for employees and independent contractors working at Mid South Floor Systems.

**Policy:** Mid South Floor Systems is committed to providing a safe and healthy workplace for all employees. We have adopted this program to prevent illness and injury produced by exposure to liquids, solids, gases vapors, fumes and mists and to comply with OSHA Hazard Communication Standard, 29 CFR 1910.1200 as detailed in Hazcom 2012 / GHS regulations.

This document is essential to assist Mid South Floor Systems in implementing and complying with the Standard and addressing our:

- use of labels, placards, posters and other forms of warning,
- use of Safety Data Sheets (SDSs),
- respirator training,
- hazardous chemical inventory (when applicable,)
- communication of hazards by SDSs and labels,
- training of employees,
- procedure for non-routine tasks,
- communications with other employers concerning hazardous materials used on our site,
- record keeping

**Administration:** Production is responsible for the implementation of this program and its review, maintenance and updating as necessary.

- All employees, including permanent and independent contractors, who may have exposure to hazardous chemicals during normal work or in emergency situations must comply with the practices and procedures outlined in this program.
- Mid South Floor Systems through people in specific supervisory positions will be responsible for maintaining OSHA records at all times.
- Mid South Floor Systems through people in specific supervisory positions will be responsible for training, maintaining training records and making this program available to employees and contractors.

## **Container Labeling:**

**Primary Containers:** Designated supervisors will ensure all containers of hazardous materials received for use or shipped by Mid South Floor Systems are clearly labeled according to the regulated requirements of Hazcom 2012 (GHS). This includes the name of the material (Trade Name or chemical name), hazard pictogram(s), signal word, hazard statements, precautionary statements, and the manufacturer or distributors name address and emergency contact information.

**Secondary Containers:** When the contents of large containers are broken down into smaller or secondary containers for in-house use (such as spray bottles) Mid South Floor Systems will ensure that the label shows the chemical identity and appropriate warnings as required by OSHA. The supervisors in each work area will ensure that all secondary containers are properly labeled.

**Safety Data Sheets (SDSs):** Production will establish an SDS program to collect, manage, monitor and update SDSs and the SDSs library as required. No container will be released for use until the SDS is received and the information verified.

Supervisors must first obtain approval from Production for all new hazardous chemicals to be shipped or used by employees.

Employees will contact Production if an SDS has not been supplied with an initial shipment. Production will then contact the chemical manufacturer or distributor to obtain the necessary information. A copy of the letter or e mail to the manufacturer is to be kept on file. If the request is made by phone, details of the call must be logged.

If Mid South Floor Systems has hazardous materials on site but is unable to contact the distributor we will access the information on line at [www.msds.com](http://www.msds.com) or [www.msdssearch.com](http://www.msdssearch.com)

Employees of Mid South Floor Systems and independent contractors shall have the chance to view the master list of SDSs at any time during their work shifts and are required to notify their immediate supervisor if they discover an SDS is not available.

Supervisors will ensure that the SDSs are conveniently located close to the work area where the hazardous materials are used.

**Respirator Training:** All Mid South Floor Systems employees wishing to wear a respirator during product application must first be medically cleared for wear. Ongoing training will be conducted by Production to ensure proper wear and maintenance. Clarification will be provided by Production in distinguishing between a respiration and a dust mask.

**Hazardous Chemical Inventory:** Production is responsible for compiling, maintaining and updating a list of all known hazardous materials used on site by employees or independent contractors. The inventory shall be kept at each work location with the SDSs.

Mid South Floor Systems employees and independent contractors shall be allowed to review the inventory and obtain information from the SDS at any time during their work shift. Supervisors shall be responsible to ensure the inventory is available at all times.

When new chemicals are received Production will update the inventory as required, including the date when the chemical was introduced. Supervisors will ensure that separate lists of hazardous chemicals used at each location are maintained and posted in individual work areas.

**Employee and Independent Contractor Safety Orientation:** Before commencing any work Mid South Floor Systems Production will make sure all new hires and contractors receive a safety orientation appropriate for the nature of their work.

For all Mid South Floor Systems staff and permanent contractors the minimum safety orientation will include:

- an overview of the Corporate Safety Policy
- a detailed review of the emergency response action plan
- a detailed review of hazardous chemicals used onsite

For Temporary Contractors and Consultants the safety orientation will include:

- a review of the specific worksite hazards and emergency procedures e.g. evacuation.
- the general safety requirements e.g. required PPE

The orientation given to casual visitors will be determined on a case by case basis by Production.

Records must be kept of all orientations. Employees conducting orientations must request the certification of training from contractors and new hires. In addition to training and orientation, new employees must read and sign the company safety rules (See Appendix B – New Employee Commitment to Safety Rules).

**Employee Training –Hazardous Chemicals:** Mid South Floor Systems will provide or will arrange to provide by competent and qualified people, training to all employees who are exposed or may be exposed to hazardous chemicals. Retraining will also be provided when a new hazard is introduced into the workplace or new hazard information becomes available for chemicals already in use onsite. Supervisors will receive special training on chemical hazards and protective measures so they can monitor staff and provide appropriate safety advice. As a minimum such training will include:

- an overview of the Hazard Communication Standard,
- an overview of the hazard communication program at Mid South Floor Systems, and the location of the written program.
- a description of the physical risks of chemicals used
- a description of the health risks, including the signs and symptoms of exposure and any medical conditions that might be aggravated by exposure,
- procedures to follow if overexposure is suspected,
- information on how to detect the presence of a hazardous chemical release such as the odor or visual appearance, a description of the emergency procedures,
- steps the company has taken to eliminate or reduce exposure,
- a description of the emergency procedures,
- a description of protective measures against chemical exposure such as control or work practices and the use and maintenance of PPE,
- a description of the procedures and equipment to be used when cleaning hazardous spills and leaks,

- details of where to find the SDS files, the order of information in a Hazcom / GHS compliant SDS, and how to read and interpret the information,
- details of how to read and interpret information on Hazcom 2012 / GHS labels,
- details on the location of written hazard evaluation procedures, this written program, and the hazardous chemical inventory.

Production will make all training materials available to all employees and independent contractors, and will ensure each employee signs a form to verify attendance and receipt of training materials.

**New Task Instruction:** Supervisors will ensure that all staff performing a critical task for the first time, receive instruction by a competent person prior to commencing the work. This instruction must include the use and care of any safety equipment and PPE. New employees and contractors will be observed on all critical tasks when performing them on their own for the first time following instruction.

**Hazardous Non-routine Tasks:** Production will provide, or will arrange to provide by qualified persons, special training to all employees before they start work on non-routine tasks. At a minimum such training will include:

- the hazardous chemicals that may be present in such work
- details of the safety precautions to be taken
- details of the measures Mid South Floor Systems is taking to reduce or eliminate the hazards
- details of emergency procedures.

**Informing Independent Contractors of Hazardous Chemicals Used Onsite:** Production will determine if employees of other employers or contractors will be exposed to hazardous chemicals used at our Facility or shipped from us. If exposure is likely supervisors will make employees of other companies aware of the hazards and will suggest necessary precautions. Supervisors will provide them with:

- a copy of the SDS master list
- an explanation of the necessary precautions
- information on hazard labels, including pictograms, or numerical labelling (if used) and details on how to read and interpret the labels.

**Record Keeping:** Mid South Floor Systems will maintain its hazardous chemicals inventory for chemicals used at or shipped from the Facility for at least 30 years. Such list will be maintained in accordance with 29 CFR 1910.1020 "Access to Employee Exposure and Medical Records".

Records will also be kept of employee safety orientations and hazardous chemical training. Any retraining will also be recorded.

**Program Availability:** Employees of Mid South Floor Systems and their representatives and independent contractors can obtain copies of this program upon request from their immediate supervisor.





## SAFETY DATA SHEET MAXXON UNDERLAYMENTS

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Maxxon® Corporation  
920 Hamel Road, PO Box 253  
Hamel, MN 55340

Issue date: February 2006  
Revision date: April 2013

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**Material Name:** Maxxon Underlayments

<b>Trade Name:</b> Gyp-Crete®	43B-14250-3
Gyp-Crete 2000®/3.2K	43B-14258
Dura-Cap®	43B-14254
Therma-Floor®	43B-14257
Commercial Topping®	43B-14268

**Description:** Industrial Plasters

Chemical Emergency or information, call: Maxxon Corporation, 763-478-9600 (Q.A. Department) or Chem-Trec at 1-800-424-9300

### SECTION 2 HAZARDS IDENTIFICATION

**HMIS® ratings**

Health: 1\*  
Flammability: 0  
Physical hazard: 1

**NFPA ratings**

Health: 1  
Flammability: 0  
Instability: 0

Hazard Scale: 0 = minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

**Emergency Overview**

CAUTION! A natural chemical reaction during hardening (rehydration) develops sufficient heat that may cause severe burns in the event of contact with skin. These burns may possibly result in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Crushing, mixing, sanding or otherwise working with this product may generate large amounts of dust. Dust can be irritating to the eyes, skin and respiratory system.

**Potential Health Effects**

**Routes of Exposure:** Inhalation. Skin contact. Eye contact. Ingestion.

**Eyes:** Dust can cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Skin:** Skin contact during hardening (rehydration) may slowly develop sufficient heat to cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with the skin. Handling can cause dry skin.



## SAFETY DATA SHEET MAXXON UNDERLAYMENTS

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**Ingestion:** Not applicable under normal conditions of use. May result in obstruction and temporary irritation of the digestive tract.

**Inhalation:** Dust may cause respiratory tract irritation.

### SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS#	Percent
Gypsum (Calcium Sulfate)	10101-41-4	60-100
Portland Cement	65997-15-1	3-7
Calcium Oxide	1305-78-8	1-5
Amorphous Silica	7631-86-9	1-5
Aluminum Oxide	1344-28-1	1-5
Iron Oxide	1309-37-1	1-5
Crystalline Silica (Quartz)	14808-60-7	0.5-1.5*
Magnesium Oxide	1309-48-4	0.5-1.5
Sulfur Trioxide	7446-11-9	0.1-1
Limestone (Calcium Carbonate)	1317-65-3	0.1-1
Titanium Dioxide	13463-67-7	0.1-1
Boric Acid	10043-35-3	0.1-1

**Composition comments:** This product contains fly ash. Hazardous components of fly ash are listed in the table above.

Gypsum (calcium sulfate), Limestone (calcium carbonate), Portland cement, and fly ash contain naturally occurring crystalline silica (quartz) which is listed as a lung carcinogen. This product also contains titanium dioxide, which is listed as a possible lung carcinogen. See Section 8 for exposure information and Section 11 for toxicological information.

\*The weight percent for crystalline silica represents total crystalline silica and not the respirable fraction. Testing conducted by Georgia-Pacific did not detect respirable crystalline silica during activities associated with the normal use of this product; however, jobsite air monitoring should be conducted to determine actual exposure when permissible exposure limits may be exceeded.

### SECTION 4 FIRST AID MEASURES

#### First Aid Procedures

- Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
- Skin contact** For skin contact, wash immediately with soap and water. Get medical attention if irritation develops or persists.
- Inhalation** Remove to fresh air. If symptoms persist, obtain medical attention
- Ingestion** May result in obstruction and irritation if ingested. Get medical attention.





## SAFETY DATA SHEET MAXXON UNDERLAYMENTS

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### SECTION 5 FIRE FIGHTING MEASURES

Flammable properties	Not flammable by OSHA/WHMIS criteria
Extinguishing media	
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Protection of firefighters	
Protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self-contained breathing apparatus.
Explosion data	
Sensitivity to static discharge	Not applicable
Sensitivity to mechanical impact	Not applicable
Hazardous combustion products	May include, and are not limited to: calcium oxide, sulfur dioxide, magnesium dioxide, magnesium oxide, aluminum oxide, and sulfur trioxide.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protection recommended in Section 8. Keep unnecessary personnel away from the release.
Environmental precautions	Keep out of drains, sewers, ditches, and waterways.
Methods of containment	Contain the spill, then place in a suitable container. Minimize dust generation.
Methods of clean up	Sweep up or gather material and place in appropriate container for disposal.

### SECTION 7 HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Use only in well-ventilated areas. Handle and open container with care. Wear appropriate NIOSH approved dust mask or filtering facepiece if dust is generated. When using, do not eat or drink. Wash hands before eating, drinking or smoking.
Storage	Keep the container tightly closed and dry. Store in a covered, dry, climate controlled area, away from incompatibles.





## SAFETY DATA SHEET MAXXON UNDERLAYMENTS

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### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Gypsum (calcium sulfate) (CAS# 10101-41-4)

	TWA	STEL	Ceiling
ACGIH	10 mg/m <sup>3</sup> TWA inhalable fraction;	Not established	Not established
OSHA	15 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established

#### Portland Cement (CAS# 65997-15-1)

	TWA	STEL	Ceiling
ACGIH	10 mg/m <sup>3</sup> TWA (respirable fraction, particulate matter containing no asbestos and <1% crystalline silica	Not established	Not established
OSHA	15 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established

#### Calcium Oxide (CAS# 1305-78-8)

	TWA	STEL	Ceiling
ACGIH	2 mg/m <sup>3</sup> TWA	Not established	Not established
OSHA	5 mg/m <sup>3</sup> TWA	Not established	Not established

#### Amorphous Silica (CAS# 7631-86-9)

	TWA	STEL	Ceiling
ACGIH	Not established	Not established	Not established
OSHA	Not established	Not established	Not established

#### Aluminum Oxide (CAS# 1344-28-1)

	TWA	STEL	Ceiling
ACGIH	Not established	Not established	Not established
OSHA	15 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established

#### Iron Oxide (CAS# 1309-37-1)

	TWA	STEL	Ceiling
ACGIH	5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established
OSHA	10 mg/m <sup>3</sup> TWA fume	Not established	Not established



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### Crystalline silica (quartz) (CAS# 14808-60-7)

	TWA	STEL	Ceiling
ACGIH	0.025 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established
OSHA	((10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (respirable)); ((30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (total dust)); ((250)/(%SiO <sub>2</sub> + 5) mppcf TWA (respirable))	Not established	Not established

### Magnesium Oxide (CAS# 1309-48-4)

	TWA	STEL	Ceiling
ACGIH	10 mg/m <sup>3</sup> TWA inhalable fraction	Not established	Not established
OSHA	15 mg/m <sup>3</sup> TWA total particulate	Not established	Not established

### Sulfur Trioxide (CAS# 7446-11-9)

	TWA	STEL	Ceiling
ACGIH	Not established	Not established	Not established
OSHA	Not established	Not established	Not established

### Limestone (Calcium Carbonate) (CAS# 1317-65-3)

	TWA	STEL	Ceiling
ACGIH	Not established	Not established	Not established
OSHA	15 mg/m <sup>3</sup> TWA total dust 5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established

### Titanium Dioxide (CAS# 13463-67-7)

	TWA	STEL	Ceiling
ACGIH	10 mg/m <sup>3</sup> TWA	Not established	Not established
OSHA	15 mg/m <sup>3</sup> TWA total dust	Not established	Not established

### Boric Acid (CAS# 10043-35-3)

	TWA	STEL	Ceiling
ACGIH	2 mg/m <sup>3</sup> TWA inhalable fraction	Not established	Not established
OSHA	Not established	Not established	Not established

**Exposure Guidelines** \*The weight percent for crystalline silica represents total crystalline silica and not the respirable fraction. Testing conducted by Georgia-Pacific did not detect respirable crystalline silica during activities associated with the normal use of this product; however, jobsite air monitoring should be conducted to determine actual exposure when permissible exposure limits may be exceeded.

**Engineering Controls** When using product, provide local and general exhaust ventilation to keep airborne dust concentrations below exposure limits. Use wet methods, if appropriate, to reduce the generation of dust.





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### Personal Protective Equipment

#### Eye protection

Safety glasses or goggles are recommended when using product. Ensure compliance with OSHA's PPE standard (29 CFR 1910.132 and .133) for eye and face protection. Safety shower/eye wash fountain must be readily available in the workplace area (29 CFR 1010.151 (c)).

#### Skin and body protection

Impervious protective clothing and gloves recommended to prevent drying or irritation of hands. Ensure compliance with OSHA's PPE standards (29 CFR 1910.132 (general) and .138 (hand protection)). Safety shower/eye wash fountain must be readily available in the workplace area (29 CFR 1910.151 (c)).

#### Respiratory Protection

A NIOSH approved dust mask or filtering face piece 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).

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Powder

**Color:** Grey

**Form:** Solid

**Odor:** Odorless

**Odor threshold:** Not available

**Physical state:** Solid

**Specific gravity:** 2.26-2.3

**Relative density:** Not available

**Freezing point:** Not available

**Partition coefficient**

**Flash point:** Not available

**Evaporation rate:** Not available

**Flammability:** Not Flammable

**Flammability limits in air, upper,**

**% by volume:** Not applicable

**Flammability limits in air, lower**

**% by volume:** Not applicable

**Vapor pressure:** Not applicable

**Vapor density:** Not applicable

**Melting point:** Not available

**Solubility (water):** 0.2% @ 22°C

**Boiling point:** Not available

**(n-octanol/water):** Not available

**Auto-ignition temperature:** Not applicable

**Decomposition temperature:** Not available

## SECTION 10 CHEMICAL STABILITY & REACTIVITY INFORMATION

**Chemical Stability:**

Stable at normal conditions

**Conditions of reactivity:**

Reacts with water (normal condition of use)

**Incompatible materials:**

Acids

**Hazardous decomposition products:**

May include, and are not limited to: calcium oxide, sulfur dioxide, magnesium oxide, aluminum oxide, and sulfur trioxide.



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### SECTION 11 TOXICOLOGICAL INFORMATION

#### Component analysis - LD50

##### ALUMINUM OXIDE (CAS# 1344-28-1)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >5000 mg/kg

##### AMORPHOUS SILICA (CAS# 7631-86-9)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >5000 mg/kg; Inhalation LC50  
Rat: >2.2 mg/L/1H  
Dermal LD50 Rabbit: >2000 mg/kg

##### BORIC ACID (CAS# 10043-35-3)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: 2660 mg/kg; Inhalation LC50  
Rat: >0.16 mg/L/4H  
Dermal LD50 Rabbit: >2000 mg/kg

##### CALCIUM OXIDE (CAS# 1305-78-8)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: 500 mg/kg

##### CRYSTALLINE SILICA (QUARTZ) (CAS# 14808-60-7)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: 500 mg/kg

##### GYPSUM (CALCIUM SULFATE) (CAS# 7778-18-9)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >3000 mg/kg

##### IRON OXIDE (CAS# 1309-37-1)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >10000 mg/kg

##### SULFUR TRIOXIDE (CAS# 7446-11-9)

Toxicology Data – Selected LD50s and LC50s

Inhalation LC50 Rat: 0.375 mg/L/4H;  
Inhalation LC50 Rat: 1.2 mg/L/1H

##### TITANIUM DIOXIDE (CAS# 13463-67-7)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >10000 mg/kg

**Routes of exposure:** Inhalation. Skin contact. Eye contact.

**Sensitization:** Not expected to be hazardous by OSHA/WHMIS criteria

**Chronic effects:** Hazardous by OSHA/WHMIS criteria.

Respirable titanium dioxide from occupational sources has been classified by IARC as a possible lung carcinogen to humans. Human studies do not suggest an association between occupational exposure to titanium dioxide and in increased risk for cancer. Evidence showed that high concentrations caused respiratory tract cancer in rats exposed by inhalation and intratracheal instillation.





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Sulfur trioxide has not been classified for carcinogenic effects. However, IARC concluded that occupational exposure to strong inorganic mists containing sulfuric acid, formed from sulfur trioxide reacted with water, is carcinogenic to humans. The ACGIH has classified strong inorganic acid mist containing sulfuric acid as a suspected human carcinogen. Exposure to inorganic acid mist (sulfuric acid mist) in this product will not occur because inorganic acid is not generated under normal conditions of use of this material.

**Carcinogenicity:** Hazardous by OSHA/WHMIS criteria.

**TITANIUM DIOXIDE (CAS# 13463-67-7)**

IARC – Group 2B (Possibly Carcinogenic to Humans)

Monograph 93 [in preparation],

Monograph 47 [1989]

U.S. – OSHA – Hazard Communications Carcinogens

Present

**Mutagenicity** Not expected to be hazardous by OSHA/WHMIS criteria.

**Reproductive effects** Not expected to be hazardous by OSHA/WHMIS criteria.

**Teratogenicity** Not expected to be hazardous by OSHA/WHMIS criteria.

**Synergistic materials** Not available

### SECTION 12 ECOLOGICAL INFORMATION

**Ecotoxicity:** Large quantities of this product may be harmful to aquatic life due to high pH.

**AMORPHOUS SILICA (CAS# 7631-86-9)**

Ecotoxicity – Freshwater Algae Data

72 Hr EC50 *Pseudokirchneriella subcapitata*:  
440 mg/L

Ecotoxicity – Freshwater Fish Species Data

96 Hr LC50 *Brachydanio rerio* 5000 mg/L  
(static)

**BORIC ACID (CAS# 10043-35-3)**

Ecotoxicity – Freshwater Fish Species Data

72 Hr LC50 *Carassius auratus*: 1020 mg/L  
[flow-through]

**CALCIUM OXIDE (CAS# 1305-78-8)**

Ecotoxicity – Freshwater Fish Species Data

96 Hr LC50 *Cyprinus carpio*: 1070 mg/L [static]

**GYPSUM (CALCIUM SULFATE) (CAS# 10101-41-4)**

Ecotoxicity – Freshwater Fish Species Data

96 Hr LC50 *Lepomis macrochirus*: 2980 mg/L  
[static]

96 Hr LC50 *Pimephales promelas*: >1970 mg/L  
[static]



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### SECTION 13 DISPOSAL CONSIDERATIONS

#### Disposal Instructions

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). 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.

### SECTION 14 TRANSPORTATION INFORMATION

#### Department of Transportation (DOT) Requirements

This product is not regulated as a hazardous material by the United States (DOT) transportation regulations.

#### Canadian Transportation of Dangerous Goods (TDG) Requirements

Not regulated as dangerous goods.

### SECTION 15 REGULATORY INFORMATION

#### 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

##### Section 302 extremely hazardous substance

Yes

##### Section 311 hazardous chemical

Yes

##### Section 313 hazardous chemical

No

#### California Proposition 65

WARNING: This product contains chemicals at concentrations less than 0.1% that are known to the state of California to cause cancer.

#### US Federal Regulations

##### ALUMINUM OXIDE (CAS# 1344-28-1)

U.S. – CERCLA/SARA – Section 313 – Emission Reporting 1.0% de minimus concentration (fibrous forms)



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#### Canadian regulations

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

#### Canada – WHMIS – Ingredient Disclosure List

Aluminum Oxide	1344-28-1	1%
Amorphous Silica	7631-86-9	1%
Boric Acid	10043-35-3	1%
Calcium Oxide	1305-78-8	1%
Crystalline Silica (Quartz)	14808-60-7	1%
Iron Oxide	1309-37-1	1%
Magnesium Oxide	1309-48-4	1%
Sulfur Trioxide	7446-11-9	1%

#### Inventory status

Country(s) or region	Inventory name	Compliant w/ inventory requirements (yes/no)
Canada	Domestic Substances List (DSL)	Yes
	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

### SECTION 16 OTHER INFORMATION

#### Product List

Gyp-Crete	BR-250, 253
Therma-Floor	BR/CNJ/NV-257
Dura-Cap	BR/CNJ/NV-254
Gyp-Crete 2000/3.2K	BR/CNJ/NV-258
Gyp-Crete Floor Underlayment LC	CNJ/NV-251
Rapid Floor	BR/CNJ/NV-690
Rapid Floor Plus	BR/CNJ/NV-691
Rapid Floor Ultra	BR/CNJ/NV-692
Rapid Radiant	BR/CNJ/NV-693
Therma-Floor Blue Bag	NV-259
Commercial Topping	BR/NV-268
Ortcrete Floor Underlayment	BR/NV-695





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### **Disclaimer**

The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Maxxon Corporation makes no warranty of any kind, expressed or implied, concerning the accuracy or completeness of the information and data herein. The implied warranties of merchantability and fitness for a particular purpose are specifically excluded. Maxxon Corporation will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading.





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Maxxon® Corporation  
920 Hamel Road, PO Box 253  
Hamel, MN 55340

Issue date: February 2006  
Revision date: April 2013

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**Material Name:** Maxxon Underlayments

<b>Trade Name:</b> Gyp-Crete®	43B-14250-3
Gyp-Crete 2000®/3.2K	43B-14258
Dura-Cap®	43B-14254
Therma-Floor®	43B-14257
Commercial Topping®	43B-14268

**Description:** Industrial Plasters

Chemical Emergency or information, call: Maxxon Corporation, 763-478-9600 (Q.A. Department) or Chem-Trec at 1-800-424-9300

### SECTION 2 HAZARDS IDENTIFICATION

**HMIS® ratings**

Health: 1\*  
Flammability: 0  
Physical hazard: 1

**NFPA ratings**

Health: 1  
Flammability: 0  
Instability: 0

Hazard Scale: 0 = minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

**Emergency Overview**

CAUTION! A natural chemical reaction during hardening (rehydration) develops sufficient heat that may cause severe burns in the event of contact with skin. These burns may possibly result in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Crushing, mixing, sanding or otherwise working with this product may generate large amounts of dust. Dust can be irritating to the eyes, skin and respiratory system.

**Potential Health Effects**

**Routes of Exposure:** Inhalation. Skin contact. Eye contact. Ingestion.

**Eyes:** Dust can cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Skin:** Skin contact during hardening (rehydration) may slowly develop sufficient heat to cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with the skin. Handling can cause dry skin.



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**Ingestion:** Not applicable under normal conditions of use. May result in obstruction and temporary irritation of the digestive tract.

**Inhalation:** Dust may cause respiratory tract irritation.

### SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS#	Percent
Gypsum (Calcium Sulfate)	10101-41-4	60-100
Portland Cement	65997-15-1	3-7
Calcium Oxide	1305-78-8	1-5
Amorphous Silica	7631-86-9	1-5
Aluminum Oxide	1344-28-1	1-5
Iron Oxide	1309-37-1	1-5
Crystalline Silica (Quartz)	14808-60-7	0.5-1.5*
Magnesium Oxide	1309-48-4	0.5-1.5
Sulfur Trioxide	7446-11-9	0.1-1
Limestone (Calcium Carbonate)	1317-65-3	0.1-1
Titanium Dioxide	13463-67-7	0.1-1
Boric Acid	10043-35-3	0.1-1

**Composition comments:** This product contains fly ash. Hazardous components of fly ash are listed in the table above.

Gypsum (calcium sulfate), Limestone (calcium carbonate), Portland cement, and fly ash contain naturally occurring crystalline silica (quartz) which is listed as a lung carcinogen. This product also contains titanium dioxide, which is listed as a possible lung carcinogen. See Section 8 for exposure information and Section 11 for toxicological information.

\*The weight percent for crystalline silica represents total crystalline silica and not the respirable fraction. Testing conducted by Georgia-Pacific did not detect respirable crystalline silica during activities associated with the normal use of this product; however, jobsite air monitoring should be conducted to determine actual exposure when permissible exposure limits may be exceeded.

### SECTION 4 FIRST AID MEASURES

#### First Aid Procedures

<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
<b>Skin contact</b>	For skin contact, wash immediately with soap and water. Get medical attention if irritation develops or persists.
<b>Inhalation</b>	Remove to fresh air. If symptoms persist, obtain medical attention
<b>Ingestion</b>	May result in obstruction and irritation if ingested. Get medical attention.





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### **SECTION 5 FIRE FIGHTING MEASURES**

<b>Flammable properties</b>	Not flammable by OSHA/WHMIS criteria
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
<b>Protection of firefighters</b>	
<b>Protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing including self-contained breathing apparatus.
<b>Explosion data</b>	
<b>Sensitivity to static discharge</b>	Not applicable
<b>Sensitivity to mechanical impact</b>	Not applicable
<b>Hazardous combustion products</b>	May include, and are not limited to: calcium oxide, sulfur dioxide, magnesium dioxide, magnesium oxide, aluminum oxide, and sulfur trioxide.

### **SECTION 6 ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	Use personal protection recommended in Section 8. Keep unnecessary personnel away from the release.
<b>Environmental precautions</b>	Keep out of drains, sewers, ditches, and waterways.
<b>Methods of containment</b>	Contain the spill, then place in a suitable container. Minimize dust generation.
<b>Methods of clean up</b>	Sweep up or gather material and place in appropriate container for disposal.

### **SECTION 7 HANDLING AND STORAGE**

<b>Handling</b>	Avoid contact with skin and eyes. Use only in well-ventilated areas. Handle and open container with care. Wear appropriate NIOSH approved dust mask or filtering facepiece if dust is generated. When using, do not eat or drink. Wash hands before eating, drinking or smoking.
<b>Storage</b>	Keep the container tightly closed and dry. Store in a covered, dry, climate controlled area, away from incompatibles.



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### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Gypsum (calcium sulfate) (CAS# 10101-41-4)**

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	10 mg/m <sup>3</sup> TWA inhalable fraction;	Not established	Not established
<b>OSHA</b>	15 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established

**Portland Cement (CAS# 65997-15-1)**

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	10 mg/m <sup>3</sup> TWA (respirable fraction, particulate matter containing no asbestos and <1% crystalline silica	Not established	Not established
<b>OSHA</b>	15 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established

**Calcium Oxide (CAS# 1305-78-8)**

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	2 mg/m <sup>3</sup> TWA	Not established	Not established
<b>OSHA</b>	5 mg/m <sup>3</sup> TWA	Not established	Not established

**Amorphous Silica (CAS# 7631-86-9)**

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	Not established	Not established	Not established
<b>OSHA</b>	Not established	Not established	Not established

**Aluminum Oxide (CAS# 1344-28-1)**

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	Not established	Not established	Not established
<b>OSHA</b>	15 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established

**Iron Oxide (CAS# 1309-37-1)**

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established
<b>OSHA</b>	10 mg/m <sup>3</sup> TWA fume	Not established	Not established



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### Crystalline silica (quartz) (CAS# 14808-60-7)

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	0.025 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established
<b>OSHA</b>	((10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (respirable)); ((30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (total dust)); ((250)/(%SiO <sub>2</sub> + 5) mppcf TWA (respirable))	Not established	Not established

### Magnesium Oxide (CAS# 1309-48-4)

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	10 mg/m <sup>3</sup> TWA inhalable fraction	Not established	Not established
<b>OSHA</b>	15 mg/m <sup>3</sup> TWA total particulate	Not established	Not established

### Sulfur Trioxide (CAS# 7446-11-9)

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	Not established	Not established	Not established
<b>OSHA</b>	Not established	Not established	Not established

### Limestone (Calcium Carbonate) (CAS# 1317-65-3)

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	Not established	Not established	Not established
<b>OSHA</b>	15 mg/m <sup>3</sup> TWA total dust 5 mg/m <sup>3</sup> TWA respirable fraction	Not established	Not established

### Titanium Dioxide (CAS# 13463-67-7)

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	10 mg/m <sup>3</sup> TWA	Not established	Not established
<b>OSHA</b>	15 mg/m <sup>3</sup> TWA total dust	Not established	Not established

### Boric Acid (CAS# 10043-35-3)

	<b>TWA</b>	<b>STEL</b>	<b>Ceiling</b>
<b>ACGIH</b>	2 mg/m <sup>3</sup> TWA inhalable fraction	Not established	Not established
<b>OSHA</b>	Not established	Not established	Not established

**Exposure Guidelines** \*The weight percent for crystalline silica represents total crystalline silica and not the respirable fraction. Testing conducted by Georgia-Pacific did not detect respirable crystalline silica during activities associated with the normal use of this product; however, jobsite air monitoring should be conducted to determine actual exposure when permissible exposure limits may be exceeded.

**Engineering Controls** When using product, provide local and general exhaust ventilation to keep airborne dust concentrations below exposure limits. Use wet methods, if appropriate, to reduce the generation of dust.





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### Personal Protective Equipment

#### Eye protection

Safety glasses or goggles are recommended when using product. Ensure compliance with OSHA's PPE standard (29 CFR 1910.132 and .133) for eye and face protection. Safety shower/eye wash fountain must be readily available in the workplace area (29 CFR 1010.151 (c)).

#### Skin and body protection

Impervious protective clothing and gloves recommended to prevent drying or irritation of hands. Ensure compliance with OSHA's PPE standards (29 CFR 1910.132 (general) and .138 (hand protection)). Safety shower/eye wash fountain must be readily available in the workplace area (29 CFR 1910.151 (c)).

#### Respiratory Protection

A NIOSH approved dust mask or filtering face piece 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).

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Powder

**Color:** Grey

**Form:** Solid

**Odor:** Odorless

**Odor threshold:** Not available

**Physical state:** Solid

**Specific gravity:** 2.26-2.3

**Relative density:** Not available

**Freezing point:** Not available

**Partition coefficient**

**Flash point:** Not available

**Evaporation rate:** Not available

**Flammability:** Not Flammable

**Flammability limits in air, upper,**

**% by volume:** Not applicable

**Flammability limits in air, lower**

**% by volume:** Not applicable

**Vapor pressure:** Not applicable

**Vapor density:** Not applicable

**Melting point:** Not available

**Solubility (water):** 0.2% @ 22°C

**Boiling point:** Not available

**(n-octanol/water):** Not available

**Auto-ignition temperature:** Not applicable

**Decomposition temperature:** Not available

## SECTION 10 CHEMICAL STABILITY & REACTIVITY INFORMATION

**Chemical Stability:**

Stable at normal conditions

**Conditions of reactivity:**

Reacts with water (normal condition of use)

**Incompatible materials:**

Acids

**Hazardous decomposition products:**

May include, and are not limited to: calcium oxide, sulfur dioxide, magnesium oxide, aluminum oxide, and sulfur trioxide.



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### SECTION 11 TOXICOLOGICAL INFORMATION

#### Component analysis - LD50

##### ALUMINUM OXIDE (CAS# 1344-28-1)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >5000 mg/kg

##### AMORPHOUS SILICA (CAS# 7631-86-9)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >5000 mg/kg; Inhalation LC50  
Rat: >2.2 mg/L/1H  
Dermal LD50 Rabbit: >2000 mg/kg

##### BORIC ACID (CAS# 10043-35-3)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: 2660 mg/kg; Inhalation LC50  
Rat: >0.16 mg/L/4H  
Dermal LD50 Rabbit: >2000 mg/kg

##### CALCIUM OXIDE (CAS# 1305-78-8)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: 500 mg/kg

##### CRYSTALLINE SILICA (QUARTZ) (CAS# 14808-60-7)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: 500 mg/kg

##### GYPSUM (CALCIUM SULFATE) (CAS# 7778-18-9)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >3000 mg/kg

##### IRON OXIDE (CAS# 1309-37-1)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >10000 mg/kg

##### SULFUR TRIOXIDE (CAS# 7446-11-9)

Toxicology Data – Selected LD50s and LC50s

Inhalation LC50 Rat: 0.375 mg/L/4H;  
Inhalation LC50 Rat: 1.2 mg/L/1H

##### TITANIUM DIOXIDE (CAS# 13463-67-7)

Toxicology Data – Selected LD50s and LC50s

Oral LD50 Rat: >10000 mg/kg

**Routes of exposure:** Inhalation. Skin contact. Eye contact.

**Sensitization:** Not expected to be hazardous by OSHA/WHMIS criteria

**Chronic effects:** Hazardous by OSHA/WHMIS criteria.

Respirable titanium dioxide from occupational sources has been classified by IARC as a possible lung carcinogen to humans. Human studies do not suggest an association between occupational exposure to titanium dioxide and in increased risk for cancer. Evidence showed that high concentrations caused respiratory tract cancer in rats exposed by inhalation and intratracheal instillation.





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Sulfur trioxide has not been classified for carcinogenic effects. However, IARC concluded that occupational exposure to strong inorganic mists containing sulfuric acid, formed from sulfur trioxide reacted with water, is carcinogenic to humans. The ACGIH has classified strong inorganic acid mist containing sulfuric acid as a suspected human carcinogen. Exposure to inorganic acid mist (sulfuric acid mist) in this product will not occur because inorganic acid is not generated under normal conditions of use of this material.

**Carcinogenicity:** Hazardous by OSHA/WHMIS criteria.

**TITANIUM DIOXIDE (CAS# 13463-67-7)**

IARC – Group 2B (Possibly Carcinogenic to Humans)

Monograph 93 [in preparation],  
Monograph 47 [1989]

U.S. – OSHA – Hazard Communications Carcinogens

Present

**Mutagenicity** Not expected to be hazardous by OSHA/WHMIS criteria.

**Reproductive effects** Not expected to be hazardous by OSHA/WHMIS criteria.

**Teratogenicity** Not expected to be hazardous by OSHA/WHMIS criteria.

**Synergistic materials** Not available

### SECTION 12 ECOLOGICAL INFORMATION

**Ecotoxicity:** Large quantities of this product may be harmful to aquatic life due to high pH.

**AMORPHOUS SILICA (CAS# 7631-86-9)**

Ecotoxicity – Freshwater Algae Data

72 Hr EC50 *Pseudokirchneriella subcapitata*:  
440 mg/L

Ecotoxicity – Freshwater Fish Species Data

96 Hr LC50 *Brachydanio rerio* 5000 mg/L  
(static)

**BORIC ACID (CAS# 10043-35-3)**

Ecotoxicity – Freshwater Fish Species Data

72 Hr LC50 *Carassius auratus*: 1020 mg/L  
[flow-through]

**CALCIUM OXIDE (CAS# 1305-78-8)**

Ecotoxicity – Freshwater Fish Species Data

96 Hr LC50 *Cyprinus carpio*: 1070 mg/L [static]

**GYPSUM (CALCIUM SULFATE) (CAS# 10101-41-4)**

Ecotoxicity – Freshwater Fish Species Data

96 Hr LC50 *Lepomis macrochirus*: 2980 mg/L  
[static]

96 Hr LC50 *Pimephales promelas*: >1970 mg/L  
[static]





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### SECTION 13 DISPOSAL CONSIDERATIONS

#### Disposal Instructions

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). 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.

### SECTION 14 TRANSPORTATION INFORMATION

#### Department of Transportation (DOT) Requirements

This product is not regulated as a hazardous material by the United States (DOT) transportation regulations.

#### Canadian Transportation of Dangerous Goods (TDG) Requirements

Not regulated as dangerous goods.

### SECTION 15 REGULATORY INFORMATION

#### 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

##### Section 302 extremely hazardous substance

Yes

##### Section 311 hazardous chemical

Yes

##### Section 313 hazardous chemical

No

#### California Proposition 65

WARNING: This product contains chemicals at concentrations less than 0.1% that are known to the state of California to cause cancer.

#### US Federal Regulations

##### ALUMINUM OXIDE (CAS# 1344-28-1)

U.S. – CERCLA/SARA – Section 313 – Emission Reporting 1.0% de minimus concentration (fibrous forms)



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### Canadian regulations

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

#### Canada – WHMIS – Ingredient Disclosure List

Aluminum Oxide	1344-28-1	1%
Amorphous Silica	7631-86-9	1%
Boric Acid	10043-35-3	1%
Calcium Oxide	1305-78-8	1%
Crystalline Silica (Quartz)	14808-60-7	1%
Iron Oxide	1309-37-1	1%
Magnesium Oxide	1309-48-4	1%
Sulfur Trioxide	7446-11-9	1%

### Inventory status

Country(s) or region	Inventory name	Compliant w/ inventory requirements (yes/no)
Canada	Domestic Substances List (DSL)	Yes
	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

## SECTION 16 OTHER INFORMATION

### Product List

Gyp-Crete	BR-250, 253
Therma-Floor	BR/CNJ/NV-257
Dura-Cap	BR/CNJ/NV-254
Gyp-Crete 2000/3.2K	BR/CNJ/NV-258
Gyp-Crete Floor Underlayment LC	CNJ/NV-251
Rapid Floor	BR/CNJ/NV-690
Rapid Floor Plus	BR/CNJ/NV-691
Rapid Floor Ultra	BR/CNJ/NV-692
Rapid Radiant	BR/CNJ/NV-693
Therma-Floor Blue Bag	NV-259
Commercial Topping	BR/NV-268
Ortcrete Floor Underlayment	BR/NV-695



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### **Disclaimer**

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Maxxon® Corporation  
920 Hamel Road, PO Box 253  
Hamel, MN 55340

Issue date: January, 2006  
Revision date: April, 2012

### SECTION 1 PRODUCT IDENTIFICATION

Product Name: Maxxon Overspray  
Chemical Family: Styrene-Butadiene Latex  
Intended Use: Construction

Chemical Emergency or information, call: USA Chem-Trec, 1-800-424-9300, Canada – Phillip, 1-800-567-7455 or Maxxon Corporation, 763-478-9600 (Q. A. Dept.)

### SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Registry No.</u>	ACGIH <u>TWA</u>	TLV <u>STEL</u>	OSHA <u>PEL</u>	<u>Amount</u>
Styrene/butadiene copolymer	Proprietary	NE	NE	NE	45.00-55.00% by weight
Water	007732-18-5	NE	NE	NE	45.00-55.00% by weight

### SECTION 3 HAZARDS IDENTIFICATION

#### NFPA Hazard Classification

Health Hazard: 1  
Fire hazard: 0  
Reactivity: 0  
Special Hazard:

#### HMIS Hazard Classification

Health: 1 Slight hazard  
Flammability: 0 Minimal hazard  
Reactivity: 0 Minimal hazard  
Personal Protection:

#### Emergency Overview

**Appearance:** White liquid. Slight aromatic odor.

**Health Hazards:** Vapors may cause eye irritation. Contact causes skin irritation. Vapors may cause irritation to the respiratory tract.



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**Route(s) of Exposure:** Inhalation, skin and eye contact.

### Acute Exposure

**Eyes:** Direct contact with this material may cause eye irritation including tearing and redness.

**Ingestion:** Ingestion (swallowing) may irritate the mouth, throat, and stomach. Ingestion is not an anticipated route of exposure for this material in industrial use.

**Inhalation:** Inhalation of vapor or aerosol may cause irritation to the respiratory tract (nose, throat and lungs).

**Skin:** Contact may cause skin irritation.

**Carcinogenicity:** This material does not contain 0.1% or more of any chemical listed by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or regulated by the United States Occupational Safety and Health Administration (OSHA) as a carcinogen.

### SECTION 4 FIRST AID MEASURES

<b>Eye Contact</b>	Immediately flush eyes with large quantities of clean water for at least 15 minutes. Get immediate medical attention.
<b>Skin Contact</b>	Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash contaminated clothing before reuse.
<b>Ingestion</b>	Give the victim one or two glasses of water or milk to drink. Never give anything by mouth to an unconscious person. IMMEDIATELY SEEK MEDICAL ATTENTION.
<b>Inhalation</b>	Remove affected individual(s) to fresh air. Seek medical attention if breathing difficulty develops.

### SECTION 5 FIRE FIGHTING MEASURES

<b>Flash Point</b>	n/a
<b>Flammable Limits in Air (Lower)</b>	n/a
<b>Flammable Limits in Air (Upper)</b>	n/a

<b>Fire and Explosion Hazards</b>	This material will not burn unless it is evaporated to dryness.
<b>Fire Fighting Extinguishing Media</b>	Use carbon dioxide, foam, dry chemical or water fog to extinguish fire.
<b>Fire Fighting Equipment</b>	Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Thoroughly decontaminate all protective equipment after use.
<b>Fire Fighting Instructions</b>	Containers of this material may build up pressure if exposed to heat (fire). Use water spray to cool fire-exposed containers.





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### Hazardous Combustion Products

Irritating and toxic gases, vapors, and dusts may be generated and released during combustion.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

#### Accidental Release on Land

Barricade the area to restrict access.

#### Small Spill

Absorb the liquid with inert material (such as dry sand or earth) and place it in a chemical waste container.

#### Large Spill

Persons not wearing protective equipment (see Section 8) should be evacuated from area of spill until cleanup has been completed. Stop leak at source when it is safe to do so. Dike and pump the liquid into waste containers. Prevent spilled material from 1) contaminating soil, 2) entering sanitary sewers, storm sewers, and drainage systems, and 3) entering bodies of water or ditches that lead to waterways. After clean-up, wash the contaminated area with detergent and water. See Section 8 for information on use of personal protection equipment during routine handling.

### SECTION 7 HANDLING AND STORAGE

Signal word: CAUTION

#### Handling Information

Avoid prolonged or repeated skin contact. Avoid contact with eyes. Avoid breathing vapor. Wash hands thoroughly after handling and before eating or drinking. Use with adequate ventilation.

#### Storage Information

Keep from freezing. Store in a dry area. Keep container closed when not in use.

### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Exposure Guidelines

There are no exposure limits assigned to the polymer in this product by the Occupational Safety and Health Administration (OSHA) or American Conference of Governmental Industrial Hygienists (ACGIH).

#### Engineering Controls

Good general ventilation should be sufficient to control airborne levels of irritating vapors.

#### Personal Protection Equipment

##### Eye Protection:

Wear 1) safety glasses with side shields and a face shield or 2) goggles and a face shield. Facilities storing or utilizing this material should be equipped with an eyewash station and safety shower.



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**Skin Protection:** Nitrile, Neoprene<sup>®</sup>, or rubber gloves should provide protection against skin contact.

**Respiratory Protection:** A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be necessary under certain circumstances where airborne concentrations are expected to exceed exposure limits.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Color	White
Odor	Slight aromatic
Odor Threshold	Not available
Physical State	Liquid
Solubility in water	Dispersible
Vapor Pressure	Not available
Specific Gravity	1.01 (water = 1) at 77 °F (25 °C)
Boiling Point	> 212 °F (>100 °C)
Melting Point	n/a
Freezing Point	< 32 °F (<10 °C)
Evaporation Rate	< 1 (BuAc=1)
Vapor Density	>1 (Air=1)
% Volatile	< 55%
pH	10 – 11
Coefficient of Water/Oil	Not available

### SECTION 10 STABILITY AND REACTIVITY

<b>Stability</b>	This material is stable during storage and during its intended use.
<b>Incompatibility</b>	No incompatibilities have been identified.
<b>Hazardous Decomposition Products</b>	Thermal decomposition may produce various hydrocarbons and irritating, acrid vapors.
<b>Hazardous Polymerization</b>	Hazardous polymerization will not occur.
<b>Conditions to Avoid</b>	Freezing temperatures (less than 32 degrees F or 0 °C).

### SECTION 11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity

**Acute Oral Toxicity:** No information is available.

**Acute Skin Toxicity:** Prolonged or repeated contact may cause minor skin irritation.



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**Acute Eye Toxicity:** Styrene-Butadiene Copolymer:

**Result/Effect**

Mild irritation with 500 mg for 24 hour exposure

**Species/Test System**

Rabbit

**Acute Inhalation Toxicity:** Low volatility makes vapor inhalation unlikely.

**Chronic/Carcinogenicity**

This material does not contain 0.1% or more of any chemical listed by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or regulated by the United States Occupational Safety and Health Administration (OSHA) as a carcinogen.

### SECTION 12 ECOLOGICAL INFORMATION

**Ecotoxicity:** No data is available

**Environmental Fate:** No data is available

### SECTION 13 DISPOSAL CONSIDERATIONS

**Waste Disposal Method**

Not a RCRA hazardous waste. Disposal of this material is not regulated under RCRA. Consult federal, state and local regulations to ensure that this material and its containers, if discarded, is disposed of in compliance with all regulatory requirements.

**RCRA Hazard Class**

NOT A RCRA HAZARDOUS WASTE. When discarded in its purchased form, this material would not be regulated as a RCRA Hazardous waste under 40 CFR 261.

### SECTION 14 TRANSPORT INFORMATION

DOT/IATA/IMDG/TDG  
Proper Shipping Name  
Hazard Class  
Label  
Placard

Bulk and Non-Bulk  
NOT REGULATED





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### SECTION 15 REGULATORY INFORMATION

**Occupational Safety and Health Act (OSHA)**

This material is not classified as hazardous under the criteria of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910.1200.

**SARA Title III: Section 304 – CERCLA**

Components of this product are not subject to reporting under the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

**SARA Title III: Section 311/312 – Hazard Communication Standard (HCS)**

This material is not a hazardous chemical.

**SARA Title III: Section 313 Toxic Chemical List (TCL)**

This product does not contain Section 313 Reportable Ingredients.

**TSCA Section 8 (b) – Inventory Status**

All components of this material are listed on the US Toxic Substances Control Act (TSCA) inventory.

**TSCA Section 12 (b) – Export Notification**

4-Vinylcyclohexene (CAS #100-40-3) is subject to the US Toxic Substances Control Act (TSCA) Section 12 (b) Export Reporting requirements.

**Canadian WHMIS**

This material is not classified as a controlled product under the Canadian Workplace Hazardous Materials Information System.

**California Proposition 65**

**W A R N I N G:** This material contains a chemical known to the State of California to cause cancer. The California Safe Drinking Water and Toxic Enforcement Act of 1986 requires that clear and reasonable warning be given prior to exposing any person to this chemical.

**Additional Canadian Regulatory Information**

This product does not contain a substance present on the WHMIS Ingredient Disclosure List (IDL) which is at or above the specified concentration limit.

### SECTION 16 OTHER INFORMATION

<b>MSDS Number</b>	103B
<b>Reason Issued</b>	Updated
<b>Prepared by</b>	Maxxon Corporation
<b>Supersedes date</b>	January, 2006



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# SAFETY DATA SHEET - T09B2011

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**TRADE NAME:** TAMKO Rolled Waterproofing  
**LABEL:** TW60 WATERPROOFING MEMBRANE  
**USE & DESCRIPTION:** Rolled Waterproofing  
**CHEMICAL FAMILY:** Mixture

<b>MANUFACTURED BY:</b> TAMKO Building Products, Inc. P. O. Box 1404 Joplin, MO 64802-1404	<b>EMERGENCY TELEPHONE NUMBERS:</b> General Information: 1-417-624-6644 (8 a.m. - 5 p.m. CST) Chemtrec: 1-800-424-9300 (24 HOURS)
---	---

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:**  
**THIS PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

INHALATION OF PRODUCT DUST MIST MAY CAUSE TEMPORARY UPPER RESPIRATORY IRRITATION.

MAY CAUSE SKIN IRRITATION.

MAY CAUSE EYE IRRITATION.

MAY CAUSE HARMFUL EFFECTS IF SWALLOWED.

UNDER NORMAL CONDITIONS OF USE, THE PRODUCT IS NOT EXPECTED TO CREATE ANY EMERGENCY HAZARDS.

<u>HMIS Rating:</u> Health - *1 Flammability - 1 Reactivity - 0	<u>NFPA Rating:</u> Health - 1 Flammability - 1 Reactivity - 0
--	---

### POTENTIAL HEALTH EFFECTS:

**Eye Contact:** If dust enters eye, may cause irritation resulting in tearing, stinging, redness or swelling.

**Skin Contact:** Repeated contact may cause skin irritation. Redness, drying and cracking of the skin (dermatitis) may occur following prolonged and repeated contact. Prolonged or repeated skin contact could result in absorption of hazardous components.

**Ingestion:** Ingestion of this product may cause irritation of the digestive tract followed by vomiting. Avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis.

**Inhalation:** Exposure to dust may cause irritation of the nose and throat. Use of this product in well-ventilated working conditions is not expected to cause adverse effects.

**Chronic Effect/Carcinogenicity/Special/Toxic:**

Can cause cancer. Can cause silicosis and other serious lung damage.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	% by Weight
Asphalt	8052-42-1	<50
Limestone*	1317-65-3	<50
Styrene Butadiene Copolymer	903-55-8	<15
*Contains Crystalline Silica		
Quartz	14808-60-7	>0.1

NE = Not established

### 4. FIRST AID MEASURES

**EYE CONTACT:** Immediately flush eyes with plenty of cool water for at least 20 minutes, occasionally lifting the eye lids to ensure thorough rinsing. Get medical attention if irritation persists.

**SKIN CONTACT:** Clean any exposed skin with warm soapy water if possible. If not, and a waterless hand cleaner is used, it should be without pumice. Do not use solvents or thinners to remove material from skin. Get medical attention if irritation persists or develops.

**INGESTION:** If swallowed, do not induce vomiting. If vomiting occurs, keep head lower than hips to avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis. Call poison control center or get immediate medical attention.

**INHALATION:** If inhalation of dust occurs, remove person to fresh air. Drink water to clear throat or blow nose to clear. If not breathing, give artificial respiration or give oxygen by trained personnel and get immediate medical attention.

**NOTES TO PHYSICIAN:** Treatment should be based on removing the source of irritation with treatment of symptoms as necessary.

### 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Dry chemical, CO<sub>2</sub>, or foam preferred. Avoid use of straight-stream water.

**SPECIAL FIRE FIGHTING PROCEDURES:** Combustible. Avoid breathing fumes. Firefighters should not enter confined spaces without wearing NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** When heated, fumes may burn if ignition source is provided. Petroleum asphalt fumes can explode if emitted in an enclosed environment and supplied with an ignition source. Burning product will cause thick black smoke.

**SEE SECTION 10 FOR COMBUSTION PRODUCTS**

### 6. ACCIDENTAL RELEASE MEASURES

**PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED:** Pick up large pieces. Do not dry sweep dusts or blow with air in confined area.

**WASTE DISPOSAL METHODS:** Dispose in accordance with applicable Federal, State, and Local regulations. Do not burn.

## 7. HANDLING AND STORAGE

**STORAGE TEMPERATURE:** Store away from heat and all ignition sources and open flames in accordance with applicable laws and regulations. **THIS PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Follow recommended work practices and use recommended personal protective clothing and equipment. See Section 8 of this MSDS.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limits \*

Components Raw Products	CAS No.	OSHA		ACGIH		Unit
		TWA	STEL	TWA	STEL	
Asphalt	8052-42-4	NE	NE	0.5***	NE	mg/m <sup>3</sup>
Limestone	1317-65-3	15/5**	NE	10/3**	NE	mg/m <sup>3</sup>
Crystalline Silica						
Quartz	14808-60-7	See 1910.1000 Table Z.3	NE	0.025	NE	mg/m <sup>3</sup>

NE= Not established

\* Note: Due to the form of the product, hazardous exposures from this product are not expected to occur. Gloves must be worn when handling and adequate ventilation must be provided during roofing related activities.

\*\* Total Nuisance Dust/Respirable Dust

\*\*\* Asphalt Fume

**RESPIRATORY PROTECTION:** Normally not needed in well-ventilated areas. If applicable exposure standards are exceeded or can be exceeded introduce ventilation to remove dust. If increased ventilation is not possible, use a NIOSH/MSHA approved air-purifying respirator. If concentrations are sufficiently high that this respirator is inadequate, or high enough to cause oxygen deficiency, use a positive pressure self-contained breathing apparatus (SCBA). Follow all applicable respirator use, fitting, and training standards and regulations.

**VENTILATION:** Use only with adequate ventilation to maintain exposures below applicable exposure limits.

**EYE PROTECTION:** Safety glasses with side shields must be used if eye contact is possible.

**SKIN:** Must wear leather or cotton gloves, long-sleeve cotton shirt, and non-skid shoes or boots with 6-inch leather uppers during application and/or tear off activities.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE AND ODOR:** Asphalt coated file.

**ODOR THRESHOLD:** Not Applicable

**pH:** Not Applicable

**BOILING POINT:** >700 °F

**MELTING POINT/ FREEZING POINT:** >200 °F

**INITIAL BOILING POINT AND BOLING RANGE:** Not Applicable

**FLASH POINT:** Not Applicable

**EVAPORATION RATE (BUTYL ACETATE = 1):** <0.1

**FLAMMABILITY (SOLID AND GAS):** Not Applicable

**UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:** Not Applicable

**VAPOR PRESSURE:** Not Applicable

**VAPOR DENSITY (AIR = 1):** Not Applicable

**SPECIFIC GRAVITY/RELATIVE DENSITY:** Variable



**SOLUBILITY (IES):** No data available

**PARTITION COEFFICIENT: N-OCTANOL/WATER:** Not Applicable

**AUTOIGNITION TEMPERATURE:** > 460°C/860°F

**DECOMPOSITION TEMPERATURE:** Not Applicable

**VISCOSITY:** Not Applicable

## **10. STABILITY AND REACTIVITY**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Keep from heat, sparks, open flame and other sources of ignition. Avoid contact with strong oxidizing agents. **THIS PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

**HAZARDOUS REACTION:** Polymerization will not occur.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Strong acids or bases, oxidizing agents and selected amines.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide, carbon dioxide, ozone, hydrogen sulfide, oxides of sulfur and various hydrocarbons during heating or burning. These combustion products are not expected unless product is heated or burned.

## **11. TOXICOLOGICAL INFORMATION:**

**EYE** – May cause eye irritation.

**SKIN** – May cause skin irritation.

**INHALATION** – Dust may cause upper respiratory irritation.

**INGESTION** – May cause harmful effects if swallowed.

### **THE FOLLOWING COMPONENT DATA IS PROVIDED FOR USER INFORMATION:**

#### **SILICA**

**Cancer** - This product contains crystalline silica (quartz). IARC has determined that crystalline silica inhaled in the form of quartz from occupational sources is carcinogenic to humans (Group 1). IARC concluded that there was sufficient evidence in humans and animals for the carcinogenicity of inhaled crystalline silica in the form of quartz from occupational sources. The NTP has classified silica as known to be a human carcinogen. The physical nature of this product may help limit any inhalation hazard from crystalline silica during application and in its hardened state. However, physical forces such as sawing, grinding, drilling and other demolition work on this product may liberate crystalline silica dust.

**Acute Effects** - Exposure to silica dust can cause irritation of the eyes, nose and throat. Exposure to high concentrations can also cause Accelerated Silicosis causing progressive shortness of breath, fever, coughing, and weight loss.

**Chronic Effects** – In addition to cancer, breathing of silica over a period of time can cause damage to the lung tissue or silicosis after long exposure at low concentrations causing shortness of breath, fever, coughing, and weight loss. Prolonged and repeated exposure to respirable silica-containing dust may also cause autoimmune disease, kidney disease, tuberculosis, nonmalignant respiratory disease, and bronchitis.

#### **ASPHALT**

**Cancer** - This product contains asphalt. The National Institute for Occupational Safety and Health has concluded that the fumes of heated roofing asphalt are a potential occupational carcinogen.

Asphalt may also cause irritation of the respiratory tract. The physical nature of this product may help limit any inhalation hazard from asphalt during application in its hardened state. However, physical forces such as sawing, grinding, drilling and other demolition work on this product may liberate dust containing oxidized asphalt. Burning or heating of the product may cause fumes, vapors or mists. **Acute Effects** - Inhalation of dust, fumes, vapors, mist may cause nose, throat, and mucous membrane irritation. Eye contact may cause severe irritation, redness, tearing, and blurred vision. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea. See Section 8 for exposure controls.

**Chronic Effects** - In addition to cancer, prolonged or repeated skin contact may result in dryness and irritation of the skin. Long term skin exposure to asphalt can increase sensitivity to the sun, and may cause discoloration. Oxidized asphalt may also cause irritation of the respiratory tract.

## **12. ECOLOGICAL INFORMATION**

**Ecotoxicity** – No data available

**Persistence and degradability** – No data available

**Bioaccumulative potential** – No data available

**Mobility in Soil** – No data available

**Other adverse effects (GHG, Ozone)** - No data available

## **13. DISPOSAL CONSIDERATIONS**

This product has not been regulated as a hazardous waste by the USEPA. Dispose in accordance with Federal, State, and Local regulations.

## **14. TRANSPORT INFORMATION**

This product is not regulated as a hazardous material for transport under 49 CFR or for vessel transport under the IMDG Code.

**UN number:** Not applicable

**UN Proper Shipping Name:** Not applicable

**Packing Group, if applicable:** Not applicable

**Environmental Hazards:** Not applicable

**Transport in bulk:** Not applicable

**Special Precautions:** Not applicable

## **15. REGULATORY INFORMATION**

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** Some components in this product are listed on the TSCA Inventory.

**COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA):** None

**SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III:**

**Section 302 Extremely Hazardous Substances:** None

**Section 311/312 Hazard Categories:** Immediate Health; Delayed Health; Fire Hazard

**Section 313 Reportable Ingredients:** None

**California Proposition 65:**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**16. OTHER INFORMATION**

- o Preparation Date: January, 2012 (Replaces previous version of MSDS for product due to IARC Oxidized Asphalt classification and warning language improvement.)

**Disclaimer of Liability**

The information and recommendations contained herein are to the best of **TAMKO Building Products, Inc.'s** knowledge and belief, accurate and reliable as of the date issued. **TAMKO Building Products, Inc.** does not warrant or guarantee their accuracy or reliability, and **TAMKO Building Products, Inc.** shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy his or herself that they are suitable and complete for the user's particular use.

# SAFETY DATA SHEET – T10W2012

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**TRADE NAME:** TAMKO TWM-1 Mastic

**LABEL:** TAMKO

**USE & DESCRIPTION:** Roof Cements

**CHEMICAL FAMILY:** Asphalt Mixture

**MANUFACTURED BY:**

TAMKO Building Products, Inc.

P. O. Box 1404

Joplin, MO 64802-1404

**EMERGENCY TELEPHONE NUMBERS:**

General Information: 1-417-624-6644 (8 a.m. - 5 p.m. CST)

Chemtrec: 1-800-424-9300 (24 HOURS)

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW: PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

COMBUSTIBLE.

INHALATION OF CURED PRODUCT PARTICLES, FUMES, VAPORS, MIST MAY CAUSE TEMPORARY UPPER RESPIRATORY IRRITATION.

CAN CAUSE SKIN IRRITATION.

CAN CAUSE EYE IRRITATION.

MAY CAUSE HARMFUL EFFECTS IF SWALLOWED.

UNDER NORMAL CONDITIONS OF USE, THE PRODUCT IS NOT EXPECTED TO CREATE ANY EMERGENCY HAZARDS.

<u>HMIS Rating:</u> Health - *2 Flammability - 1 Reactivity - 0	<u>NFPA Rating:</u> Health - 2 Flammability - 1 Reactivity - 0
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### POTENTIAL HEALTH EFFECTS:

**Eye Contact:** If cured product particles enter eye, may cause irritation resulting in tearing, stinging, redness or swelling. Vapors, mists, or fumes may be irritating.

**Skin Contact:** Contact may cause skin irritation. Redness, drying and cracking of the skin (dermatitis) may occur following prolonged and repeated contact. Prolonged or repeated skin contact could result in absorption of hazardous components. In addition, prolonged and repeated exposure to asphalt fumes has been reported to cause an acne-like skin condition, skin discoloration, and may increase sensitivity to the sun (photosensitization).

**Ingestion:** Ingestion of this product may cause irritation of the digestive tract followed by vomiting and central nervous system depression (see "inhalation" for symptoms). Avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis.

**Inhalation:** Exposure to cured product particles, fumes, vapors, or mists may cause irritation of the nose and throat, and possible signs of central nervous system depression (symptoms may include headache, dizziness, loss of coordination, and drowsiness). Loss of consciousness can occur in poorly ventilated or confined spaces. Additional signs and symptoms of exposure may include

reduced appetite and abnormal fatigue. Use of this product in well-ventilated working conditions is not expected to cause adverse effects.

**Chronic Effect/Carcinogenicity/Special/Toxic:**

Components can cause cancer.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS No.	% by Weight
Limestone	1317-65-3	<46
Asphalt	8052-42-4	<35
Mineral Spirits	8052-41-3	<19
Solvent Naphtha	64742-95-6	<17
Thermoplastic Elastomer	NE	<12
Clay*	12174-11-7 and 1332-58-7	<11
*Contains Crystalline Silica		
Quartz	14808-60-7	>0.1
NE = Not established		

**4. FIRST AID MEASURES**

**EYE CONTACT:** Immediately flush eyes with plenty of cool water for at least 20 minutes, occasionally lifting the eye lids to ensure thorough rinsing. Get medical attention if irritation persists.

**SKIN CONTACT:** Clean any exposed skin with warm soapy water if possible. If not, and a waterless hand cleaner is used, it should be without pumice. Do not use solvents or thinners to remove material from skin. Get medical attention if irritation persists or develops.

**INGESTION:** If swallowed, do not induce vomiting. If vomiting occurs, keep head lower than hips to avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis. Call poison control center or get immediate medical attention.

**INHALATION:** If inhalation of cured product particles, fumes, vapors, or mist occurs, remove person to fresh air. Drink water to clear throat or blow nose to clear. If not breathing, give artificial respiration or give oxygen by trained personnel and get immediate medical attention.

**NOTES TO PHYSICIAN:** Treatment should be based on removing the source of irritation with treatment of symptoms as necessary.

**5. FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Dry chemical, CO<sub>2</sub>, or foam preferred. Avoid use of straight-stream water.

**SPECIAL FIRE FIGHTING PROCEDURES:** Combustible. Firefighters should not enter confined spaces without wearing a National Institute for Occupational Safety and Health (NIOSH) approved positive pressure self-contained breathing apparatus (SCBA) with full face mask and full protective equipment. Water may be used to cool containers in a fire-exposed area.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** When heated, fumes may burn if ignition source is provided. Petroleum asphalt fumes can explode if emitted in an enclosed environment and supplied with an ignition source. Burning product may cause thick black smoke. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture.

**SEE SECTION 10 FOR COMBUSTION PRODUCTS**



## 6. ACCIDENTAL RELEASE MEASURES

**PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED:** Combustible. Handling equipment must be grounded to prevent sparking. Remove ignition sources, ventilate area, and avoid inhalation or skin contact by using appropriate precautions outlined in this MSDS (see Section 8). Stop leak and contain spilled material with absorbent material. Collect adsorbed product and clean up materials in appropriate container for proper disposal. Move containers from spill area. For larger spills, keep unnecessary people away. Stay upwind of and away from spill. Notify proper authorities. Prevent materials from entering drains, sewers, or waterways. Spills entering surface waters or sewers entering/leading to surface waters that cause a sheen must be reported to the National Response Center 1-800-424-8802.

**WASTE DISPOSAL METHODS:** Dispose in accordance with applicable Federal, State, and Local regulations. Do not burn.

## 7. HANDLING AND STORAGE

**STORAGE TEMPERATURE:** Store away from heat and all ignition sources and open flames in accordance with applicable laws and regulations. **THIS PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Follow recommended work practices and use recommended personal protective clothing and equipment. See Section 8 of this MSDS. Avoid all ignition sources. Storage areas should be ventilated to reduce fire and explosion hazards, and possible overexposure of personnel to fumes and vapors. Keep containers closed when not in use. Do not store near food and beverages or smoking materials.

Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. For work on tanks, refer to OSHA regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding or other contemplated operations. See Section 13 for disposal.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limits

Components Raw Products	CAS	OSHA		ACGIH		Unit
		TWA	STEL	TWA	STEL	
Asphalt	8052-42-4	NE	NE	0.5**	NE	mg/m <sup>3</sup>
Limestone*	1317-65-3	15/5***	NE	10/3***	NE	mg/m <sup>3</sup>
Mineral Spirits	8052-41-3	500	NE	100	NE	ppm
Solvent naphtha	64742-95-6	500	NE	100	NE	ppm
Clay*	12174-11-7	15/5***	NE	10/3***	NE	mg/m <sup>3</sup>
Crystalline Silica*						
Quartz	14808-60-7	See 1910.1000 Table Z.3	NE	0.025	NE	mg/m <sup>3</sup>

NE= Not established

\*Note: Due to the form of the product, hazardous exposures from this product are not expected to occur. Gloves must be worn when handling and adequate ventilation must be provided during roofing related activities.

\*\*Asphalt Fume

\*\*\*Total Nuisance Dust/Respirable Dust

**RESPIRATORY PROTECTION:** Normally not needed in well-ventilated areas. If applicable exposure standards are exceeded or can be exceeded, use a NIOSH/MSHA approved air-purifying respirator. If concentrations are sufficiently high that this respirator is inadequate, or high enough to cause oxygen deficiency, use a positive pressure self-contained breathing apparatus (SCBA). Follow all applicable respirator use, fitting, and training standards and regulations.

**VENTILATION:** Use only with adequate ventilation to maintain exposures below applicable exposure limits. Local exhaust ventilation and/or enclosure of the process may be required. All equipment must be explosion proof.

**EYE PROTECTION:** Chemical safety goggles with side-shields or face shield must be used if eye contact is possible.

**SKIN:** Chemical resistant gloves, apron, or other protective clothing needed to prevent skin contact.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOR:** Black, viscous liquid with petroleum odor.

**ODOR THRESHOLD:** No Data Available

**pH:** Not Applicable

**BOILING POINT:** 269 °F

**MELTING POINT:** No Data Available

**INITIAL BOILING POINT AND BOILING RANGE:** see BOILING POINT

**FLASH POINT:** 162 °F COC

**EVAPORATION RATE (BUTYL ACETATE = 1):** <0.1

**FLAMMABILITY (SOLID AND GAS):** Not Applicable

**UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:** No Data Available

**VAPOR PRESSURE:** No Data Available

**VAPOR DENSITY (AIR = 1):** Negligible

**SPECIFIC GRAVITY/RELATIVE DENSITY:** Approximately 1

**SOLUBILITY (IES):** Negligible

**PARTITION COEFFICIENT: N-OCTANOL/WATER:** No Data Available

**AUTOIGNITION TEMPERATURE:** No Data Available

**DECOMPOSITION TEMPERATURE:** No Data Available

**VISCOSITY:** No Data Available

## **10. STABILITY AND REACTIVITY**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Keep from heat, sparks, open flame and other sources of ignition. Avoid contact with strong oxidizing agents. Prevent vapor accumulation. **THIS PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

**HAZARDOUS REACTION:** Polymerization will not occur.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Strong acids or bases, oxidizing agents and selected amines.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide, carbon dioxide, ozone, hydrogen sulfide, oxides of sulfur and various hydrocarbons.

## 11. TOXICOLOGICAL INFORMATION

**EYE** – Can cause eye irritation.

**SKIN** – Can cause skin irritation.

**INHALATION** – Cured product particles, fume, vapor, or mist may cause upper respiratory irritation.

**INGESTION** – May cause harmful effects if swallowed.

### THE FOLLOWING COMPONENT DATA IS PROVIDED FOR USER INFORMATION:

#### **SILICA**

**Cancer** - This product contains crystalline silica (quartz). IARC has determined that crystalline silica inhaled in the form of quartz from occupational sources is carcinogenic to humans (Group 1). IARC concluded that there was sufficient evidence in humans and animals for the carcinogenicity of inhaled crystalline silica in the form of quartz from occupational sources. The NTP has classified silica as known to be a human carcinogen. The physical nature of this product may help limit any inhalation hazard from crystalline silica during application and in its hardened state. However, physical forces such as sawing, grinding, drilling and other demolition work on this product may liberate crystalline silica dust.

**Acute Effects** - Exposure to silica dust can cause irritation of the eyes, nose and throat. Exposure to high concentrations can also cause Accelerated Silicosis causing progressive shortness of breath, fever, coughing, and weight loss.

**Chronic Effects** – In addition to cancer, breathing of silica over a period of time can cause damage to the lung tissue or silicosis after long exposure at low concentrations causing shortness of breath, fever, coughing, and weight loss. Prolonged and repeated exposure to respirable silica-containing dust may cause autoimmune disease, kidney disease, tuberculosis, and nonmalignant respiratory disease, and bronchitis.

#### **ASPHALT**

**Cancer** - This product contains cutback asphalt. IARC has classified "extracts of steam and air-refined bitumens" (cutback asphalt) as Group 2B, "possibly carcinogenic to humans." NIOSH has also concluded that the fumes of heated roofing asphalt are a potential occupational carcinogen. Asphalt may also cause irritation of the respiratory tract. The physical nature of this product may help limit any inhalation hazard from asphalt after curing. However, physical forces such as sawing, grinding, drilling and other demolition work on this product may liberate cured product particles containing asphalt. Burning or heating of the product may cause fumes, vapors or mists.

**Acute Effects** - Inhalation of cured product particles, fumes, vapors, or mist may cause nose, throat, and mucous membrane irritation. Eye contact may cause severe irritation, redness, tearing, and blurred vision. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea.

**Chronic Effects** - In addition to cancer, prolonged or repeated skin contact may result in dryness and irritation of the skin. Long term skin exposure to asphalt can increase sensitivity to the sun, and may cause discoloration. Asphalt may also cause irritation of the respiratory tract.

#### **PETROLEUM HYDROCARBON SOLVENT (MINERAL SPIRITS, SOLVENT NAPHTHA)**

**Cancer** - This product contains petroleum hydrocarbon solvent. This product also may contain small amounts of polyaromatic hydrocarbons and other hydrocarbons that are recognized carcinogens in humans and experimental animals.

**Acute Effects** - Inhalation of cured product particles, fumes, vapors, or mist may cause nose, throat, lung, and mucous membrane irritation. Inhalation may cause central nervous system depression. Eye contact may cause irritation, stinging, tearing, redness, and swelling. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and dizziness, staggering gait, drowsiness, loss of consciousness, and delirium, as well as additional central nervous system effects. Aspiration into the lungs during vomiting may result in severe lung damage or death.

**Chronic Effects** - Chronic effects may include damage to the following target organs: kidneys, lungs, liver, mucous membranes, upper respiratory tract, skin, central nervous system, eye, lens or cornea, and/or auditory system. Reports have associated prolonged or repeated occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as "Solvent or Painter's Syndrome"). Intentional misuse by deliberately inhaling vapors of this product may be harmful or fatal. Chronic effects of ingestion and subsequent aspiration into the lungs may cause chronic lung dysfunction.

## **12. ECOLOGICAL INFORMATION**

**Ecotoxicity** – No specific data available on this product. Product may cause mechanical damage to aquatic organisms. The mineral spirit component is expected to volatilize in the environment and to be moderately toxic to both freshwater and marine organisms.

**Persistence and degradability** – No data available.

**Bioaccumulative potential** – No data available.

**Mobility in Soil** – No data available.

**Other adverse effects (GHG, Ozone)** - No data available.

## **13. DISPOSAL CONSIDERATIONS**

Dispose in accordance with Federal, State, and Local regulations. Prevent materials from entering drains, sewers, or waterways. Do not dump on the ground. Do not burn.

## **14. TRANSPORT INFORMATION**

This product is not regulated as a hazardous material for transport under 49 CFR and for vessel transport under the IMDG Code.

## **15. REGULATORY INFORMATION**

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** Some components in this product are listed on the TSCA Inventory.

**COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA):** None.

**SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III:**

**Section 302 Extremely Hazardous Substances:** None

**Section 311/312 Hazard Categories:** Immediate Health; Delayed Health; Fire Hazard

**Section 313 Reportable Ingredients: None.**

**California Proposition 65:**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**16. OTHER INFORMATION**

- Original Preparation Date: January 31, 1996
- Revised:
  - July 2002
  - October 2002 (Formatting issues)
  - August 2004 (DOT Transport Information and Prop 65 language)
  - August 2005 (Changes in emergency contact information)
  - March 2006 (Name change)
  - June 2006 (Company name change)
  - May 2007 (Formatting issues)
  - July 2012 (Replaces previous version of MSDS for warning language improvement.)

**Disclaimer of Liability**

The information and recommendations contained herein are to the best of **TAMKO Building Products, Inc.'s** knowledge and belief, accurate and reliable as of the date issued. **TAMKO Building Products, Inc.** does not warrant or guarantee their accuracy or reliability, and **TAMKO Building Products, Inc.** shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy his or herself that they are suitable and complete for the user's particular use.



# SAFETY DATA SHEET – T10X2012

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**TRADE NAME:** TAMKO TWP-1 Quick Dry Waterproofing Primer

**LABEL:** TAMKO

**USE & DESCRIPTION:** High-tack primer for waterproofing

**CHEMICAL FAMILY:** Not applicable

**MANUFACTURED FOR:**

TAMKO Building Products, Inc.  
P. O. Box 1404  
Joplin, MO 64802-1404

**EMERGENCY TELEPHONE NUMBERS:**

General Information: 1-417-624-6644 (8 a.m. - 5 p.m. CST)  
Chemtrec: 1-800-424-9300 (24 HOURS)

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW: PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

FLAMMABLE.

INHALATION OF CURED PRODUCT PARTICLES, FUMES, VAPORS, MIST MAY CAUSE DROWSINESS, DIZZINESS, OR TEMPORARY UPPER RESPIRATORY IRRITATION.

CAN CAUSE SKIN IRRITATION.

CAN CAUSE EYE IRRITATION.

MAY CAUSE HARMFUL EFFECTS IF SWALLOWED.

<b>HMIS Rating:</b> Health - *2 Flammability - 3 Reactivity - 0	<b>NFPA Rating:</b> Health - 2 Flammability - 3 Reactivity - 0
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### POTENTIAL HEALTH EFFECTS:

**Eye Contact:** If cured product particles enter eye, may cause irritation resulting in tearing, stinging, redness or swelling. Vapors, mists, or fumes may be irritating.

**Skin Contact:** Contact may cause skin irritation. Redness, drying and cracking of the skin (dermatitis) may occur following prolonged and repeated contact. Prolonged or repeated skin contact could result in absorption of hazardous components and may cause systemic toxicity.

**Ingestion:** Ingestion of this product may cause irritation of the digestive tract followed by vomiting and central nervous system depression (see "inhalation" for symptoms). Avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis.

**Inhalation:** Exposure to cured product particles, fumes, vapors, or mists may cause irritation of the nose and throat, and possible signs of central nervous system depression (symptoms may include headache, dizziness, loss of coordination, and drowsiness). Loss of consciousness can occur in poorly ventilated or confined spaces. Additional signs and symptoms of exposure may include reduced appetite and abnormal fatigue. This product may produce cardiac sensitization and cardiac arrhythmias when inhaled in high concentrations. Use of this product in well-ventilated working conditions is not expected to cause adverse effects.

**Chronic Effect/Carcinogenicity/Special/Toxic:**

Components can cause damage to central nervous system and disorders to the lung, liver, kidney, cardiovascular system, blood, reproduction, and development.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components*	CAS No.	% by Weight
Toluene	108-88-3	<42
Hydrocarbon resin	proprietary	<33
Acetone	67-64-1	<30
Thermoplastic Elastomer	NE	<17
Red iron oxide pigment	1332-37-2	<1
NE = Not established		

**4. FIRST AID MEASURES**

**EYE CONTACT:** Immediately flush eyes with plenty of cool water for at least 20 minutes, occasionally lifting the eye lids to ensure thorough rinsing. Get medical attention if irritation persists.

**SKIN CONTACT:** Remove contaminated clothing and shoes. Clean any exposed skin with warm soapy water if possible. If not, and a waterless hand cleaner is used, it should be without pumice. Do not use solvents or thinners to remove material from skin. Get medical attention if irritation persists or develops.

**INGESTION:** If swallowed, do not induce vomiting. Drink a large volume of water and get immediate medical attention. If vomiting occurs, keep head lower than hips to avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis.

**INHALATION:** If inhalation of cured product particles, fumes, vapors, or mist occurs, remove person to fresh air. Drink water to clear throat or blow nose to clear. If not breathing, give artificial respiration or give oxygen by trained personnel and get immediate medical attention.

**NOTES TO PHYSICIAN:** Treatment should be based on removing the source of irritation with treatment of symptoms as necessary.

**5. FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Dry chemical, CO<sub>2</sub>, or foam. Avoid use of straight-stream water.

**SPECIAL FIRE FIGHTING PROCEDURES:** Flammable. Firefighters should not enter confined spaces without wearing a National Institute for Occupational Safety and Health (NIOSH) approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment. Water may be used to cool containers in a fire-exposed area.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical / electrical equipment). Vapors may travel considerable distances to a source of ignition where they can ignite, flashback, or explode. Vapor / air explosion hazard may be created indoors, in sewers, or in confined outdoor spaces. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire.

**SEE SECTION 10 FOR COMBUSTION PRODUCTS**

**6. ACCIDENTAL RELEASE MEASURES**

**PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED:** Flammable. Handling equipment must be grounded to prevent sparking. Remove ignition sources, ventilate area, and avoid inhalation or skin contact by using appropriate precautions outlined in this MSDS (see Section 8). Stop leak and contain spilled material with absorbent material. Collect adsorbed product and clean up materials in appropriate container for proper disposal. Move containers from spill area. For larger spills, keep unnecessary people away. Stay upwind of and away from spill. Notify proper authorities. Prevent materials from entering drains, sewers, or waterways. Spills entering surface waters or sewers entering/leading to surface waters that cause a sheen must be reported to the National Response Center 1-800-424-8802.

**WASTE DISPOSAL METHODS:** This product could be classified as a hazardous waste due to ignitability. Dispose in accordance with applicable Federal, State, and Local regulations. Do not burn.

## 7. HANDLING AND STORAGE

**STORAGE TEMPERATURE:** Store away from heat and all ignition sources and open flames in accordance with applicable laws and regulations. **THIS PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Follow recommended work practices and use recommended personal protective clothing and equipment (See Section 8). Avoid all ignition sources. Storage areas should be ventilated to reduce fire and explosion hazards, and possible overexposure of personnel to fumes and vapors. Vapors may accumulate and travel to ignition sources distant from the handling site. Flash fire can result. Keep containers closed when not in use. Do not store near food and beverages or smoking materials.

Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. See Section 13 for disposal.

Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limits

Components	CAS	OSHA		ACGIH		
Raw Products		TWA	STEL	TWA	STEL	Unit
Toluene	108-88-3	200	300*	20	NE	ppm
Acetone	67-64-1	1000	NE	500	750	ppm

NE= Not established

\*Ceiling

**RESPIRATORY PROTECTION:** Normally not needed in well-ventilated areas. If applicable exposure standards are exceeded or can be exceeded, use a NIOSH/MSHA approved air-purifying respirator. If concentrations are sufficiently high that this respirator is inadequate, or high enough to

cause oxygen deficiency, use a positive pressure self-contained breathing apparatus (SCBA). Follow all applicable respirator use, fitting, and training standards and regulations.

**VENTILATION:** Use only with adequate ventilation to maintain exposures below applicable exposure limits. Local exhaust ventilation and/or enclosure of the process may be required. All equipment must be explosion proof.

**EYE PROTECTION:** Chemical safety goggles with side-shields or face shield must be used if spraying or eye contact is possible.

**SKIN:** Chemical resistant gloves, apron, or other protective clothing needed to prevent skin contact.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOR:** Semi-clear liquid with petroleum odor.

**ODOR THRESHOLD:** No Data Available

**pH:** No Data Available

**BOILING POINT:** 232 °F

**MELTING POINT:** No Data Available

**INITIAL BOILING POINT AND BOILING RANGE:** see BOILING POINT

**FLASH POINT:** <20 °F COC

**EVAPORATION RATE (ETHER = 1):** 2

**FLAMMABILITY (SOLID AND GAS):** Not Applicable

**UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:** 0.05% / 0.05%

**VAPOR PRESSURE:** 23 mm Hg

**VAPOR DENSITY (AIR = 1):** 2

**SPECIFIC GRAVITY/RELATIVE DENSITY:** Approximately 1

**SOLUBILITY (IES):** Negligible

**PARTITION COEFFICIENT: N-OCTANOL/WATER:** No Data Available

**AUTOIGNITION TEMPERATURE:** Not Applicable

**DECOMPOSITION TEMPERATURE:** No Data Available

**VISCOSITY:** No Data Available

## **10. STABILITY AND REACTIVITY**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Keep from heat, sparks, open flame and other sources of ignition.

Avoid contact with strong oxidizing agents. Prevent vapor accumulation. **THIS PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

**HAZARDOUS REACTION:** Polymerization will not occur.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Strong acids or bases, oxidizing agents.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide, carbon dioxide, acrolein, halogenated compounds, carboxylic acids, ketones, aldehydes, and various hydrocarbons.

## **11. TOXICOLOGICAL INFORMATION**

**EYE** – Can cause eye irritation.

**SKIN** – Can cause skin irritation.

**INHALATION** – Cured product particles, fume, vapor, or mist may cause drowsiness, dizziness, or upper respiratory irritation.

**INGESTION** – May cause harmful effects if swallowed.

**THE FOLLOWING COMPONENT DATA IS PROVIDED FOR USER INFORMATION:**

**TOLUENE**

**Cancer** - This product contains toluene which is not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**Acute Effects** - Inhalation of cured product particles, fumes, vapors, or mist may cause respiratory tract, eye, skin, and lung irritation. Inhalation may cause central nervous system depression. Inhalation of high concentrations (>200 ppm) of toluene are associated with CNS encephalopathy, headache, depression, lassitude (weakness, exhaustion), impaired coordination, transient memory loss, and impaired reaction time. If ingested, may cause effects similar to those for inhalation exposure. Aspiration into the lungs may result in chemical pneumonitis, which may be fatal.

**Chronic Effects** – Target organs include kidneys, CNS, liver, respiratory system, eyes, and skin. Prolonged or repeated skin contact may cause defatting and dermatitis. Repeated exposure in combination with constant, loud noise can produce hearing loss or dizziness. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest, damage of the brain, liver, kidney and to death. Toluene is a suspected reproductive hazard (EU, Korea, and New Zealand all have classified for GHS as Reproductive Toxicity Category 2, and Japan a Category 1A).

**ACETONE**

**Cancer** - This product contains acetone which is not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**Acute Effects** - Inhalation of cured product particles, fumes, vapors, or mist may cause eye, skin, respiratory tract and digestive tract irritation. Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Inhalation may cause motor incoordination and speech abnormalities. Ingestion may cause CNS depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma, and possible death due to respiratory failure. Eye contact may cause irritation, stinging, tearing, redness, and swelling. Aspiration into the lungs may result in chemical pneumonitis, which may be fatal.

**Chronic Effects** – Target organs include CNS, respiratory system, eyes, and skin. Prolonged or repeated skin contact may cause drying, cracking, or dermatitis. Chronic inhalation may cause effects similar to those of acute inhalation.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** – No specific data available on this product. The solvent components are expected to volatilize in the environment and to be moderately toxic to both freshwater and marine organisms and are not expected to bioaccumulate.

**Persistence and degradability** – No data available.

**Bioaccumulative potential** – No data available.

**Mobility in Soil** – No data available.

**Other adverse effects (GHG, Ozone)** - No data available.

**13. DISPOSAL CONSIDERATIONS**



This product could be classified as a hazardous waste due to ignitability. Dispose in accordance with Federal, State, and Local regulations. Prevent materials from entering drains, sewers, or waterways. Do not dump on the ground. Do not burn.

#### 14. TRANSPORT INFORMATION

This product is regulated as a hazardous material for transport under 49 CFR and for vessel transport under the IMDG Code.

**DOT PROPER SHIPPING NAME:** PAINT

**DOT HAZARD CLASSIFICATION:** 3

**DOT LABELING REQUIREMENTS:** Flammable Liquid

**UN/NA NUMBER:** UN 1263

**PLACARDS:** Flammable

**PACKING GROUP:** PG II

**IMDG CODE:** Hazardous for vessel transport under the IMDG Code

**IMDG SHIPPING NAME:** Paint

**IMDG HAZARD CLASS:** 3

**UN/ID NUMBER:** UN 1263

**PACKING GROUP NUMBER:** PG II

#### 15. REGULATORY INFORMATION

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** Some components in this product are listed on the TSCA Inventory.

**COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA):** This material contains toluene and acetone. The reportable quantities for toluene and acetone are 1,000 lbs and 5,000 lbs respectively. Any release of this product that results in a release of acetone or toluene equal to or exceeding the reportable quantity must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 117, 302.

#### **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III:**

**Section 302 Extremely Hazardous Substances:** None

**Section 311/312 Hazard Categories:** Immediate Health; Delayed Health; Fire Hazard

**Section 313 Reportable Ingredients:** This material contains the following chemicals which are subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373:

Chemical Name	CAS Number	Concentration (% by Wt.)
Toluene	108-88-3	<42

#### **California Proposition 65:**

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

#### 16. OTHER INFORMATION

- Original Preparation Date: July 15, 1998
- Revised:
  - August 2004 (DOT Transport Information)
  - August 2005 (Changes in emergency contact information)
  - June 2006 (Company name change)
  - May 2007 (Formatting issues)
  - July 2012 (Formatting issues)
  - January 2013 – Add red iron oxide pigment
- Replaces: None

### **Disclaimer of Liability**

The information and recommendations contained herein are to the best of **TAMKO Building Products, Inc.'s** knowledge and belief, accurate and reliable as of the date issued. **TAMKO Building Products, Inc.** does not warrant or guarantee their accuracy or reliability, and **TAMKO Building Products, Inc.** shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy his or herself that they are suitable and complete for the user's particular use.

## Safety Data Sheet

### Section 1. Identification

GHS product Identifier : 650 Membrane  
Other means of identification : Not available

Relevant identified uses of the substance or mixtures and uses advised against

Polymer modified bitumen membrane used as a post concrete self- adhesive water proofing membrane/vapor retarder that virtually eliminates water and vapor transmission through concrete slabs.

Supplier's details Polyguard Products, Inc  
3801 South Interstate 45

Ennis, TX 75119  
Tel: (800) 541-4994

Emergency telephone number) CHEMTREC, US 1-800-424-9300 International 1-703-527-3887  
with hours of operation) ( 24/7)

### Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazardous Communications Standard ( 49CFR1910.1200) , 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.

Classification of the substance or mixture : Not classified

GHS label elements

Signal word : No signal word

Hazard statement : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable

Response : Not applicable

Storage : Not applicable

Disposal : Not applicable

Hazards not otherwise classified : None known

### Section 3. Composition/information on ingredients

Substance/Mixture : Mixture

Other means of identification : Not available

CAS number/other identifiers

CAS number : Not applicable

Product code : Not applicable

Occupational exposure limits, if available are listed in section 8.

### Section 4. First aid measures

Description of necessary first aid measures.

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if symptoms occur.

Inhalation Not likely to occur under normal use. Possible exposure to toxic fumes if burned.

Skin contact Wash with soap and water. Get medical attention if symptoms occur.

Ingestion Not likely to occur under normal use. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

## Section 4. First aid measures

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

Eye contact	: No known significant effects or critical hazards
Inhalation	: No known significant effects or critical hazards
Skin contact	: No known significant effects or critical hazards
Ingestion	: No known significant effects or critical hazards

#### Over-exposure signs/symptoms

Eye contact	: No known significant effects or critical hazards
Inhalation	: No known significant effects or critical hazards
Skin contact	: No known significant effects or critical hazards
Ingestion	: No known significant effects or critical hazards

### Indication of immediate medical attention and special treatment needed, if necessary.

Notes to physician:	: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment
Protection of first-aiders:	: No action shall be taken involving any personal risk or without suitable training.

## Section 5. Fire-fighting measures

### Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:

Carbon Dioxide  
Carbon Monoxide  
Sulfur oxides  
Low MW hydrocarbons

Special protective equipment : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in a positive pressure mode.

Special protective actions for fire fighters : No special protection is required.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures.

For non emergency personal : Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

Environmental precautions : Not applicable

### Methods and materials for containment and cleaning up

Spill : Due to the physical state of this material, spills are not possible.

## Section 7. Handling and storage

### Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment ( see Section 8)

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See section 8 for additional information on hygiene measures.



## Section 7. Handling and storage

### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry cool and well-ventilated area away from incompatible materials (see section 10) and food and drink.

## Section 8. Exposure controls/personal protection

### Control parameters

### Occupational exposure limits

### Appropriate engineering controls

None

: No special ventilation requirements. Good ventilation should be sufficient to control worker exposure to airborne contaminants.

### Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Hygiene measure:

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the work station location.

### Eye/face protection

: Safety eyewear complying with an approved standard should be used when risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases and dusts.

### Skin Protection

### Hand protection

: 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.

### Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Respiratory protection

: Use a properly fitted, particulate filter respiratory complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

### Physical state

: Solid

### Color

: Black/white

### Odor

: Asphaltic (slight)

### Odor threshold

: Not available

### pH

: Not applicable

### Melting point

: Not available

### Boiling point

: Not applicable

### Flash Point

: Not applicable

### Burning time

: Not determined

### Burning rate

: Not determined

### Evaporation rate:

: Not applicable

### Flammability(solid, gas)

: Not applicable

### Lower & upper explosive (flammable) limits

: Not applicable

### Vapor density

: Not applicable



## 9. Physical and chemical properties

Vapor pressure	: Not applicable
Relative density	: 1.09
Solubility	: Insoluble in water
Partition coefficient: n-octanol/water	: Not available
Auto- ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
SADT	: Not applicable
Viscosity	: Not applicable
VOC	: 0 g/l

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: This product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions to avoid:	: No specific data.
Incompatible materials	: Reactive or incompatible with the following materials: Oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

Acute toxicity : There is no data available

### Irritation/Corrosion

Skin : There is no data available

Eyes : There is no data available

Respiratory : There is no data available

### Sensitization

Skin : There is no data available

Respiratory : There is no data available

Mutagenicity : There is no data available

Carcinogenicity : There is no data available

Reproductive toxicity : There is no data available

Specific target organ toxicity ( single exposure) : There is no data available

Specific target organ toxicity ( repeated exposure) : There is no data available

Aspiration hazard : There is no data available

**Information on the likely routes of exposure** : Routes of entry anticipated: dermal  
: Routes of entry not anticipated: Oral, inhalation, ingestion

### Potential acute health effects

Eye contact : No known significant effects or critical hazards

Inhalation : No known significant effects or critical hazards

Skin contact : No known significant effects or critical hazards

Ingestion : No known significant effects or critical hazards

## Section 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No known significant effects or critical hazards
Inhalation	: No known significant effects or critical hazards
Skin contact	: No known significant effects or critical hazards
Ingestion	: No known significant effects or critical hazards

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

Potential immediate effects	: No known significant effects or critical hazards
Potential delayed effects	: No known significant effects or critical hazards

#### Long term exposure

Potential immediate effects	: No known significant effects or critical hazards
Potential delayed effects	: No known significant effects or critical hazards

#### Potential chronic health effects

General	: No known significant effects or critical hazards
Carcinogenicity	: No known significant effects or critical hazards
Mutagenicity	: No known significant effects or critical hazards
Teratogenicity	: No known significant effects or critical hazards
Developmental effects	: No known significant effects or critical hazards
Fertility effects	: No known significant effects or critical hazards
Target organs	: No known significant effects or critical hazards

### Numerical measures of toxicity

<u>Acute toxicity estimates</u>	: There is no data available
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## Section 12. Ecological information

<u>Toxicity</u>	: There is no data available
<u>Persistence and degradability</u>	: There is no data available
<u>Bioaccumulative potential</u>	: There is no data available
<u>Mobility in soil</u>	
Soil/water partition coefficient (K <sub>oc</sub> )	: Not applicable
Other adverse effects	: No known significant effects or critical hazards

## Section 13. Disposal Considerations

<u>Disposal methods</u>	: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
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## Section 14. Transportation information

<u>AERG:</u>	: Not applicable
<u>Regulatory Information:</u>	
<u>DOT/TDG/IMDG/IATA</u>	: Not regulated

## Section 15. Regulatory information

<b>U.S. Federal regulations:</b>	<b>TSCA 8(a) CDR Exempt/Partial exemption:</b> Not determined
<b>Clean Air Act Section 112 (b)</b>	<b>United States inventory ( TSCA 8 b):</b> all components are listed or exempted
<b>Hazardous air pollutants (HAPs)</b>	: Not listed
<b>Clean Air Act (CAA) Section 602 Class I Substances</b>	: Not listed
<b>Clean Air Act (CAA) Section 602 Class II Substances</b>	: Not listed
<b>DEA List I Chemicals ( Precursor chemicals)</b>	: Not listed
<b>DEA List II Chemicals (Essential Chemicals)</b>	: Not listed
<b>SARA 302/304</b>	
<b><u>Composition/information on ingredients</u></b>	: No products found
<b>SARA 304 RQ</b>	: Not applicable
<b>SARA 311/312</b>	
<b>Classification</b>	: Not applicable
<b><u>State regulations</u></b>	
<b>Massachusetts</b>	: The following components are listed: Petroleum asphalt
<b>New Jersey</b>	: The following components are listed: Petroleum asphalt
<b>New York</b>	: None of the components are listed
<b>Pennsylvania</b>	: The following components are listed: Petroleum asphalt
<b><u>California Prop.65</u></b>	: No products were found
<b><u>International regulations</u></b>	
<b><u>International lists</u></b>	: Australia inventory ( AICS): all components are listed or exempted
	: China inventory ( IECSC): all components are listed or exempted
	: Japan inventory : Not determined
	: China inventory ( IECSC): All components are listed or exempted
	: Korea inventory: All components are listed or exempted
	: Malaysia inventory (EHS Register): Not determined
	: New Zealand Inventory of Chemicals ( NZIoC):All components are listed or exempted
	: Philippines inventory ( PICCS): all components are listed or exempted
	: Taiwan inventory (CSNN): Not determined
	: Not listed
<b>Chemical Weapons</b>	
<b>Convention List schedule I</b>	
<b>Chemicals</b>	
<b>Chemical Weapons</b>	: Not listed
<b>Convention List schedule II</b>	
<b>Chemicals</b>	
<b>Chemical Weapons</b>	: Not listed
<b>Convention List schedule III</b>	
<b>Chemicals</b>	



## 16. Other information

### Hazardous Material Information System ( USA)

**Health -1                      Flammability-0                      Physical hazards-0**

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with fully implemented HMIS® program. HMIS® is a registered trademark of the National Paint & Coating Association (NPCA). HMIS® materials may be purchased exclusively from J.J. Keller.

### National Fire Protection Association ( USA) NFPA 704

**Health -1                      Flammability-0                      Instability-0**

NFPA-704 was copyrighted by the National Fire Protection Association of Quincy, MA. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactive hazards of chemicals. The user is referred to certain limited number of with recommended classifications in NFPA 49 and NFPA 325, which would be used as guidelines only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

<b>Date of revision:</b>	<b>12/17/14</b>
<b>Date of previous issue</b>	<b>11/2/14</b>
<b>Revisions:</b>	<b>Revision to clean up typing errors.</b>
<b>Version</b>	<b>4</b>
<b>Prepared by</b>	<b>C. Rogalski</b>

**Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.**

## Safety Data Sheet

### Section 1. Identification

**GHS product Identifier** : Polyguard Balconyguard™  
**Other means of identification** : Not available

**Relevant identified used of the substance or mixtures and uses advised against**

Polymer modified bitumen membrane used as flashing to deflect water.

**Supplier's details** Polyguard Products, Inc  
3801 South Interstate 45  
Ennis, TX 75119  
Tel: (800) 541-4994  
**Emergency telephone number)** CHEMTREC, US 1-800-424-9300 International 1-703-527-3887  
**with hours of operation)** ( 24/7)

### Section 2. Hazards identification

**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazardous Communications Standard ( 49CFR1910.1200) , 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.

**Classification of the substance or mixture** : Not classified

**GHS label elements**

**Signal word** : No signal word

**Hazard statement** : No known significant effects or critical hazards.

**Precautionary statements**

**Prevention** : Not applicable

**Response** : Not applicable

**Storage** : Not applicable

**Disposal** : Not applicable

**Hazards not otherwise classified** : None known

### Section 3. Composition/information on ingredients

**Substance/Mixture** : Mixture

**Other means of identification** : Not available

**CAS number/other identifiers**

**CAS number** : Not applicable

**Product code** : Not applicable

Occupational exposure limits, if available are listed in section 8.

### Section 4. First aid measures

**Description of necessary first aid measures.**

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if symptoms occur.

**Inhalation** Not likely to occur under normal use. Possible exposure to toxic fumes if burned.

**Skin contact** Wash with soap and water. Get medical attention if symptoms occur.

**Ingestion** Not likely to occur under normal use. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.



## Section 4. First aid measures

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

Eye contact	: No known significant effects or critical hazards
Inhalation	: No known significant effects or critical hazards
Skin contact	: No known significant effects or critical hazards
Ingestion	: No known significant effects or critical hazards

#### Over-exposure signs/symptoms

Eye contact	: No known significant effects or critical hazards
Inhalation	: No known significant effects or critical hazards
Skin contact	: No known significant effects or critical hazards
Ingestion	: No known significant effects or critical hazards

### Indication of immediate medical attention and special treatment needed, if necessary.

Notes to physician:	: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment
Protection of first-aiders:	: No action shall be taken involving any personal risk or without suitable training.

## Section 5. Fire-fighting measures

### Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Hazardous thermal decomposition products Decomposition products may include the following materials:

Carbon Dioxide

Carbon Monoxide

Sulfur oxides

Low MW hydrocarbons

Special protective equipment : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in a positive pressure mode.

Special protective actions for fire fighters : No special protection is required.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures.

For non emergency personal : Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

Environmental precautions : Not applicable

### Methods and materials for containment and cleaning up

Spill : Due to the physical state of this material, spills are not possible.

## Section 7. Handling and storage

### Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment ( see Section 8)

Advice on general occupational hygiene Eating, drinking and smoking should be prohibited in areas where material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry cool and well-ventilated area away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready to use. Do not store in unlabeled containers.

## Section 8. Exposure controls/personal protection

### Control parameters

### Occupational exposure limits

### Appropriate engineering controls

### Environmental exposure controls

### Hygiene measure:

### Eye/face protection

### Skin Protection

### Hand protection

### Body protection

### Other skin protection

### Respiratory protection

None

: No special ventilation requirements. Good ventilation should be sufficient to control worker exposure to airborne contaminants.

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the work station location.

: Safety eyewear complying with an approved standard should be used when risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases and dusts.

: 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.

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

: Use a properly fitted, particulate filter respiratory complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

### Physical state

### Color

### Odor

### Odor threshold

### pH

### Melting point

### Boiling point

### Flash Point

### Burning time

### Burning rate

### Evaporation rate:

### Flammability(solid, gas)

### Lower & upper explosive (flammable) limits

### Vapor density

: Solid (tape)

: Black

: Asphaltic (slight)

: Not available

: Not applicable

: Not available

: Not available

: Not determined

: Not determined

: Not determined

: Not applicable

: Not applicable

: Not applicable

: Not applicable



## 9. Physical and chemical properties

Vapor pressure	: Not applicable
Relative density	: 1.09
Solubility	: Insoluble in water
Partition coefficient: n-octanol/water	: Not available
Auto- ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
SADT	: Not applicable
Viscosity	: Not applicable
VOC	: 0 g/l

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: This product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions to avoid:	: No specific data.
Incompatible materials	: Reactive or incompatible with the following materials: Oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

<u>Acute toxicity</u>	: There is no data available
<u>Irritation/Corrosion</u>	
<u>Skin</u>	: There is no data available
<u>Eyes</u>	: There is no data available
<u>Respiratory</u>	: There is no data available
<u>Sensitization</u>	
<u>Skin</u>	: There is no data available
<u>Respiratory</u>	: There is no data available
<u>Mutagenicity</u>	: There is no data available
<u>Carcinogenicity</u>	: There is no data available
<u>Reproductive toxicity</u>	: There is no data available
<u>Specific target organ toxicity ( single exposure)</u>	: There is no data available
<u>Specific target organ toxicity ( repeated exposure)</u>	: There is no data available
<u>Aspiration hazard</u>	: There is no data available

<u>Information on the likely routes of exposure</u>	: Routes of entry anticipated: dermal
	: Routes of entry not anticipated: Oral, inhalation, ingestion

### Potential acute health effects

<u>Eye contact</u>	: No known significant effects or critical hazards
<u>Inhalation</u>	: No known significant effects or critical hazards
<u>Skin contact</u>	: No known significant effects or critical hazards
<u>Ingestion</u>	: No known significant effects or critical hazards

## Section 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No known significant effects or critical hazards
Inhalation	: No known significant effects or critical hazards
Skin contact	: No known significant effects or critical hazards
Ingestion	: No known significant effects or critical hazards

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

Potential immediate effects	: No known significant effects or critical hazards
Potential delayed effects	: No known significant effects or critical hazards

#### Long term exposure

Potential immediate effects	: No known significant effects or critical hazards
Potential delayed effects	: No known significant effects or critical hazards

#### Potential chronic health effects

General	: No known significant effects or critical hazards
Carcinogenicity	: No known significant effects or critical hazards
Mutagenicity	: No known significant effects or critical hazards
Teratogenicity	: No known significant effects or critical hazards
Developmental effects	: No known significant effects or critical hazards
Fertility effects	: No known significant effects or critical hazards
Target organs	: No known significant effects or critical hazards

### Numerical measures of toxicity

<u>Acute toxicity estimates</u>	: There is no data available
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## Section 12. Ecological information

<u>Toxicity</u>	: There is no data available
<u>Persistence and degradability</u>	: There is no data available
<u>Bioaccumulative potential</u>	: There is no data available
<u>Mobility in soil</u>	
Soil/water partition coefficient (K <sub>oc</sub> )	: Not applicable
Other adverse effects	: No known significant effects or critical hazards

## Section 13. Disposal Considerations

Disposal methods	: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
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## Section 14. Transportation information

AERG:	: Not applicable
Regulatory Information:	
DOT/TDG/IMDG/IATA	: Not regulated

## Section 15. Regulatory information

<b>U.S. Federal regulations:</b>	<b>TSCA 8(a) CDR Exempt/Partial exemption:</b> Not determined
<b>Clean Air Act Section 112 (b) Hazardous air pollutants (HAPs)</b>	<b>United States inventory ( TSCA 8 b):</b> all components are listed or exempted : Not listed
<b>Clean Air Act (CAA) Section 602 Class I Substances</b>	: Not listed
<b>Clean Air Act (CAA) Section 602 Class II Substances</b>	: Not listed
<b>DEA List I Chemicals ( Precursor chemicals)</b>	: Not listed
<b>DEA List II Chemicals (Essential Chemicals)</b>	: Not listed
<b>SARA 302/304</b>	
<b><u>Composition/information on ingredients</u></b>	: No products found
<b>SARA 304 RQ</b>	:Not applicable
<b>SARA 311/312</b>	
<b>Classification</b>	: Not applicable
<b><u>State regulations</u></b>	
<b>Massachusetts</b>	: The following components are listed: Petroleum asphalt
<b>New Jersey</b>	: The following components are listed: Petroleum asphalt
<b>New York</b>	: None of the components are listed
<b>Pennsylvania</b>	: The following components are listed: Petroleum asphalt
<b><u>California Prop.65</u></b>	: No products were found
<b><u>International regulations</u></b>	
<b>International lists</b>	: Australia inventory ( AICS): all components are listed or exempted : China inventory ( IECSC): all components are listed or exempted : Japan inventory : Not determined : China inventory ( IECSC): All components are listed or exempted : Korea inventory: All components are listed or exempted : Malaysia inventory (EHS Register): Not determined : New Zealand Inventory of Chemicals ( NZIoC):All components are listed or exempted : Philippines inventory ( PICCS): all components are listed or exempted : Taiwan inventory (CSNN): Not determined : Not listed
<b>Chemical Weapons</b>	
<b>Convention List schedule I Chemicals</b>	
<b>Chemical Weapons</b>	: Not listed
<b>Convention List schedule II Chemicals</b>	
<b>Chemical Weapons</b>	: Not listed
<b>Convention List schedule III Chemicals</b>	



## 16. Other information

### Hazardous Material Information System ( USA)

#### Health -1

#### Flammability-0

#### Physical hazards-0

Caution: HMIS® rating are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with fully implemented HMIS® program. HMIS® is a registered trademark of the National Paint & Coating Association (NPCA). HMIS® materials may be purchased exclusively from J.J. Keller.

### National Fire Protection Association ( USA) NFPA 704

#### Health -1

#### Flammability-0

#### Instability-0

NFPA-704 was copyrighted by the National Fire Protection Association of Quincy, MA. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactive hazards of chemicals. The user is referred to certain limited number of with recommended classifications in NFPA 49 and NFPA 325, which would be used as guidelines only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

#### Date of revision:

12/15/14

#### Date of previous issue

4/15/13

#### Revisions:

Revision to entire document for compliance of new HazCom rules.

#### Version

2

#### Prepared by

C. Rogalski

**Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

## 650 LT liquid adhesive

### Section 1. Identification

**GHS product identifier** : 650 LT liquid adhesive  
**Other means of identification** : Not available.

#### Relevant identified uses of the substance or mixture and uses advised against

Aromatic & aliphatic hydrocarbon adhesive.

**Supplier's details** : Polyguard Products Inc.  
3801 South Interstate 45  
Ennis, TX 75119  
Tel: (800)541-4994

**Emergency telephone number (with hours of operation)** : CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887  
(24/7)

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 2  
SKIN CORROSION/IRRITATION - Category 2  
TOXIC TO REPRODUCTION [Fertility] - Category 2  
TOXIC TO REPRODUCTION [Unborn child] - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Narcotic effects] - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
ASPIRATION HAZARD - Category 1  
AQUATIC TOXICITY (CHRONIC) - Category 2

#### GHS label elements

**Hazard pictograms**



**Signal word**

: Danger

**Hazard statements**

: Highly flammable liquid and vapor.  
Causes skin irritation.  
Suspected of damaging fertility or the unborn child.  
May be fatal if swallowed and enters airways.  
May cause drowsiness and dizziness.  
May cause damage to organs through prolonged or repeated exposure.  
Toxic to aquatic life with long lasting effects.

#### Precautionary statements





## Section 2. Hazards identification

<b>Prevention</b>	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Wash hands thoroughly after handling.
<b>Response</b>	: Collect spillage. Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention.
<b>Storage</b>	: Store locked up. Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

### CAS number/other identifiers

<b>CAS number</b>	: Not applicable.
<b>Product code</b>	: Not available.

<b>Ingredient name</b>	<b>%</b>	<b>CAS number</b>
Toluene	30 - 60	108-88-3
n-Hexane	30 - 60	110-54-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
<b>Inhalation</b>	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

**Section 2. Hazards identification**

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## Section 4. First aid measures

- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 20 minutes. Get medical attention.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.



## Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet or water-based fire extinguishers.

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

- Special protective actions for fire-fighters** : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 4. First aid measures



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## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Toluene	NIOSH REL (United States, 6/2009). STEL: 560 mg/m <sup>3</sup> 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m <sup>3</sup> 10 hours. TWA: 100 ppm 10 hours. OSHA PEL Z2 (United States, 11/2006). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2012). TWA: 20 ppm 8 hours.
n-Hexane	ACGIH TLV (United States, 3/2012). Absorbed through skin. TWA: 50 ppm 8 hours. NIOSH REL (United States, 6/2009). TWA: 180 mg/m <sup>3</sup> 10 hours. TWA: 50 ppm 10 hours. OSHA PEL (United States, 6/2010). TWA: 1800 mg/m <sup>3</sup> 8 hours. TWA: 500 ppm 8 hours.



## Section 8. Exposure controls/personal protection

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : 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.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Liquid.

**Color** : Red.

**Odor** : Hydrocarbon. [Strong]

**Odor threshold** : Not available.

**pH** : Not available.

**Melting point** : Not available.

**Boiling point** : 67°C(152.6°F)

**Flash point** : Closed cup: -19.4°C (-2.9°F) [Tagliabue.]

**Burning time** : Not applicable.

**Burning rate** : Not applicable.

**Evaporation rate** : 4.5 (ether (anhydrous) = 1)

**Flammability (solid, gas)** : Not available.

**Lower and upper explosive (flammable) limits** : Lower: 1.2%  
Upper: 7.5%



## Section 8. Exposure controls/personal protection



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## Section 9. Physical and chemical properties

Vapor pressure	: 20.3 kPa (152 mm Hg) [room temperature]
Vapor density	: 3.5 [Air = 1]
Relative density	: 0.9
Solubility	: Partially soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
SADT	: Not available.
Viscosity	: Not available.
VOC	: 527 g/L

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
n-Hexane	LD50 Oral	Rat	636 mg/kg	-
	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LD50 Oral	Rat	15840 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Mild irritant	Rabbit	-	870 µg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 µL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
n-Hexane	Eyes - Mild irritant	Rabbit	-	10 mg	-

**Section 9. Physical and chemical properties**

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## Section 11. Toxicological information

### Sensitization

**Skin** : There is no data available.

**Respiratory** : There is no data available.

### Mutagenicity

There is no data available.

### Carcinogenicity

### Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-

### Reproductive toxicity

There is no data available.

### Teratogenicity

There is no data available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	Not applicable.	Narcotic effects
n-Hexane	Category 3	Not applicable.	Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	Not determined	Not determined
n-Hexane	Category 2	Not determined	Not determined

### Aspiration hazard

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
n-Hexane	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

**Skin contact** : Causes skin irritation.

**Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

## Section 11. Toxicological information



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## Section 11. Toxicological information

- Inhalation** : Adverse symptoms may include the following:
- nausea or vomiting
  - headache
  - drowsiness/fatigue
  - dizziness/vertigo
  - unconsciousness
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
- irritation
  - redness
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
- nausea or vomiting
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

#### Potential chronic health effects

**General** : May cause damage to organs through prolonged or repeated exposure.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : Suspected of damaging the unborn child.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : Suspected of damaging fertility.

**Target organs** : Contains material which may cause damage to the following organs: kidneys, the nervous system, the reproductive system, liver, peripheral nervous system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

### Numerical measures of toxicity

#### Acute toxicity estimates

There is no data available.

**Section 11. Toxicological information**

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## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Toluene	Acute EC50 433 ppm Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 12500 µg/L Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/L Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/L Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
n-Hexane	Chronic NOEC 500000 µg/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Chronic NOEC 1000 µg/L Fresh water	Daphnia - Daphnia magna	21 days
	Acute LC50 113000 µg/L Fresh water	Fish - Oreochromis mossambicus	96 hours

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Toluene	2.69	8.317637711	low
n-Hexane	3.9	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : There is no data available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.





### United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Toluene	108-88-3	Listed	U220





## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1139	UN1139	UN1139
UN proper shipping name	COATING SOLUTION RQ(Toluene, n-Hexanes)	COATING SOLUTION. Marine pollutant (n-Hexane)	COATING SOLUTION
Transport hazard class(es)	3 	3  	3 
Packing group	II	II	II
Environmental hazards	Yes.	Yes.	No.
Additional information	<u>Reportable quantity</u> 2999.4 lbs / 1361.7 kg [399.7 gal / 1513 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	<u>Emergency schedules (EmS)</u> F-E, S-E	-

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** Not determined.  
**Clean Water Act (CWA) 307:** Toluene  
**Clean Water Act (CWA) 311:** Toluene

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Listed

**SARA 302/304**



KMK Regulatory Services

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[www.kmkregservices.com](http://www.kmkregservices.com) [www.askdriluc.com](http://www.askdriluc.com) [www.ghssmart.com](http://www.ghssmart.com)

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## Section 15. Regulatory information

### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Fire hazard  
Immediate (acute) health hazard  
Delayed (chronic) health hazard

### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Toluene	30 - 60	Yes.	No.	No.	Yes.	Yes.
n-Hexane	30 - 60	Yes.	No.	No.	Yes.	Yes.

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	Toluene	108-88-3	30 - 60
	n-Hexane	110-54-3	30 - 60
<b>Supplier notification</b>	Toluene	108-88-3	30 - 60
	n-Hexane	110-54-3	30 - 60

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

**Massachusetts** : The following components are listed: Toluene; n-Hexane  
**New York** : The following components are listed: Toluene; n-Hexane  
**New Jersey** : The following components are listed: Toluene; n-Hexane  
**Pennsylvania** : The following components are listed: Toluene; n-Hexane

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Toluene	No.	Yes.	No.	7000 µg/day (ingestion) 13000 µg/day (inhalation)

### International regulations

**International lists** : **Australia inventory (AICS)**: Not determined.  
**China inventory (IECSC)**: Not determined.  
**Japan inventory**: Not determined.  
**Korea inventory**: Not determined.  
**Malaysia Inventory (EHS Register)**: Not determined.  
**New Zealand Inventory of Chemicals (NZIoC)**: Not determined.  
**Philippines inventory (PICCS)**: Not determined.  
**Taiwan inventory (CSNN)**: Not determined.

**Chemical Weapons Convention List Schedule I Chemicals** : Not listed

## Section 15. Regulatory information



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## Section 15. Regulatory information

Chemical Weapons : Not listed

Convention List Schedule

II Chemicals

Chemical Weapons : Not listed

Convention List Schedule

III Chemicals

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health : 2 \* Flammability : 3 Physical hazards : 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)

Health : 2 Flammability : 3 Instability : 0

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### History

Date of issue mm/dd/yyyy : 04/15/2013

Date of previous issue : 01/30/2012

Version : 3

Revised Section(s) : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

Prepared by : KMK Regulatory Services Inc.

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

### Notice to reader

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## Section 15. Regulatory information



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# Material Safety Data Sheet

Conforms to ANSI Z400.5-2004 Standard (United States)

## 1. Product and company identification

**Produce Name:** Shur Tac  
**Material uses:** Liquid adhesive  
**Supplier/Manufacturer:** Polyguard Products  
3801 South Interstate 45  
Ennis, TX 75119  
Tel (800) 541-4994  
**In case of emergency:** CHEMTREC, US: +1-800-424-9300 International: +1-703-527-3887

## 2. Hazards identification

**Physical state:** Liquid  
**Odor:** Pleasant  
**Emergency Overview:** May cause eye, skin and respiratory tract irritation. May be harmful if swallowed.  
**Potential acute health effects**  
**Inhalation:** Exposure to vapors may cause respiratory tract irritation.  
**Ingestion:** May be harmful if swallowed. May cause gastric distress.  
**Skin:** May cause skin irritation.  
**Eyes:** May be irritating to the eyes.  
**Potential chronic health effects**  
**Chronic effects:** No known significant effects or critical hazards  
**Carcinogenicity:** No known significant effects or critical hazards.  
**Mutagenicity:** No known significant effects or critical hazards.  
**Teratogenicity:** No known significant effects or critical hazards  
**Developmental effects:** No known significant effects or critical hazards  
**Fertility effects:** No known significant effects or critical hazards  
**Over-exposure signs/symptoms**  
**Inhalation:** Adverse symptoms may include the following: Irritation.  
**Ingestion:** No specific data  
**Skin:** Adverse symptoms may include the following: Irritation, redness  
**Eyes:** Adverse symptoms may include the following: pain and irritation, redness, watering.  
**Medical conditions aggravated by over-exposure:** None known.

See toxicological information ( section 11)

## 3. Composition/information on ingredients

United States		
Name	CAS number	%
Acrylic polymer blend	N/A	30-60
Propylene Glycol	57-55-6	1-5
Water	7732-18-5	30-50

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

<b>Eye contact:</b>	Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention immediately if irritation develops and persists.
<b>Skin contact:</b>	Wash with mild soap and water. Remove clothing and wash immediately.
<b>Inhalation:</b>	If inhaled, remove to fresh air. Contact a physician if symptoms develop.
<b>Ingestion:</b>	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Protection of first-aiders:</b>	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth to mouth resuscitation.
<b>Notes to physician:</b>	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested.

## 5. Fire-fighting measures

<b>Extinguishing media</b>	
<b>Suitable:</b>	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
<b>Hazardous thermal decomposition products:</b>	Thermal decomposition (burning) may release irritating and/or toxic gases and vapors including carbon monoxide, and carbon dioxide.
<b>Special protective equipment:</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-piece face mask operating in a positive pressure mode.

## 6. Accidental release measures

<b>Personal precautions:</b>	No actions shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material... Avoid breathing vapor or mist. Provide adequate ventilation. Wear respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
<b>Environmental Precautions:</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>Method for clean up</b>	
<b>Spill:</b>	Contain and/or absorb spill with inert material (e.g. sand, vermiculite). Collect and dispose of in accordance with applicable regulations. Avoid run off to waterways and sewers.

## 7. Handling and storage

<b>Handling:</b>	Put on appropriate personal protective equipment (see section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
<b>Storage:</b>	Do not allow material to freeze. Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible material (see section 10) and food and drink... Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

### United States

**Product name**

Propylene Glycol

**Exposure limits**

ACGIH TLV

TWA: 10 mg/m<sup>3</sup>

Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedure:**

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment

**Engineering measures:**

Use only with adequate ventilation.

**Hygiene measures:**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protection****Eyes**

Safety glasses

**Skin**

Long sleeves

**Respiratory**

A respirator is not needed under normal and intended conditions of use. Airborne exposures to hazardous dusts or mists may be generated by spraying, sanding or grinding.

**Hands**

Chemical Resistant gloves

**HMIS Code/Personal protective equipment**

B

## 9. Physical and chemical properties

**Physical state:**

Liquid

**Flash point**

N/A

**Color**

Pink

**Odor**

Pleasant

**Boiling /Condensation Point**

100 °C (212°F)

**Specific Gravity:**

1.04

**Percent Volatiles:**

43

**Percent VOC**

<75 g/l

**Vapor pressure:**

As for water

**Vapor density:**

As for water

**pH factor:**

5-7

**Solubility:**

Miscible in water as supplied. Insoluble when dry.

**Evaporation rate:**

Same as water

## 10. Stability and reactivity

**Stability:**

The product is stable

**Hazardous polymerization:**

Under normal conditions of storage and use, hazardous polymerization will not occur.

**Conditions to avoid:**

Contact with water reactive materials. Alkali will coagulate the emulsion.

**Materials to avoid:**

Water reactive chemicals, alkalis.

**Hazardous decomposition:**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## 11. Toxicological information

### Acute Toxicity

#### Product/ingredient name

#### Inhalation:

#### Ingestion:

#### Skin:

#### Eyes:

### Acute Toxicity

#### Product/ingredient name

#### Propylene Glycol

No known significant effects or critical hazards.

May be harmful if swallowed

Irritating to skin.

Irritating to eyes.

## 12. Ecological information

### Environmental effects:

No known significant or critical hazards.

## 13. Disposal considerations

### Waste disposal :

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations

Refer to section 7: HANDLING AND STORAGE and section 8: EXPOSURE CONTROL/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transportation information

Not regulated

## 15. Regulatory information

### United States

#### U.S. Federal regulations:

**TSCA 4(a) final test rules:** none

United States Inventory (TSCA 8b): All components are listed or exempted.

**SARA 302/304/311/312 extremely hazardous substance:** No products were found

**SARA 302/304 Emergency Planning and Notification:** No products were found.

**SARA 302/304/311/312 hazardous chemicals:** No products found.

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm:

**None known**

**WARNING:** This product contains chemicals known to the State of California to cause cancer: **None known**

## 16. Other information

### Label Requirements

MAY CAUSE EYE AND SKIN IRRITATION. MAYBE HARMFUL IF SWALLOWED.

### Hazardous Material Information System (USA)

Health -	1	HAZARD RATING
Fire Hazard-	0	4- Extreme
Physical Hazard	0	3-Serious
Personal Protection		2- Moderate
		1- Slight
		0- Minimal
		See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

### References:

ANSI Z400.5, MSDS standard, 2004.-Manufacturer's Material Safety Data Sheet- 29CFR  
Part1910.1200 OSHA MSDS Requirements.-49 CFR Table List of Hazardous Materials, UN#,  
Proper Shipping Names, PG.

### Date of Issue:

2-7-12

### Version:

2

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## SAFETY DATA SHEET

**1. Identification**

Product identifier

Sand and Gravel

Other means of identification

Synonyms

Sand and Gravel

Recommended use

Sand and Gravel aggregate may be used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials, and other construction materials. Sand and Gravel aggregate may be distributed in bags, totes, and bulk shipments.

Recommended restrictions

None known.

Manufacturer/Importer/Supplier/Distributor information

Company

MidSouth Aggregates

Name

MidSouth Aggregates

Address

226 Gill Street Alcoa, TN 37701

Telephone

865-983-3100

Website

midsouthaggregates.com

E-mail

Contact person

Emily Harper

Emergency phone number

865-340-2683

**2. Hazard(s) identification**

Physical hazards

Not classified.

Health Hazards

Carcinogenicity

Category 1A

Specific Target Organ Toxicity,

Category 2

Repeated Exposure

Not classified.

OSHA defined hazards

Label elements



Signal word

Danger

Hazard statement

May cause cancer. May cause damage to organs (lung) 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. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If exposed or concerned: Get medical advice/attention.

Storage

Restrict or control access to stockpile areas. Engulfment hazard: To prevent burial or suffocation, do not enter a confined space, such as a silo, bulk truck or other storage container or vessel that stores or contains aggregates without an effective procedure for assuring safety.

Disposal

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

Hazard(s) not otherwise  
classified (HNOC)

None known.

Supplemental information

Respirable Crystalline Silica (RCS) may cause cancer. Sand and Gravel is a naturally occurring mineral complex that contains varying quantities of quartz (crystalline silica). In its natural bulk state, sand and gravel is not a known health hazard. Sand and Gravel may be subjected to various natural or mechanical forces that produce small particles (dust) which may contain respirable crystalline silica (particles less than 10 micrometers in aerodynamic diameter). Repeated inhalation of respirable crystalline silica (quartz) may cause lung cancer according to IARC and NTP; ACGIH states that it is a suspected cause of cancer. Other forms of RCS (e.g., tridymite and cristobalite) may also be present or formed under certain industrial processes.

**3. Composition/information on ingredients**

Mixtures

Chemical name	CAS number	%
Sand and Gravel	None	> 99
Crystalline Silica(Quartz)	14808-60-7	> 1



## 4. First-aid measures

### Inhalation

Sand and Gravel dust: Move to fresh air. Call a physician if symptoms develop or persist.

### Skin contact

Sand and Gravel dust: Wash off with soap and water. Get medical attention if irritation develops and persists.

### Eye contact

Sand and Gravel dust: Immediately flush with plenty of water for at least 15 minutes. Hold eyelids apart. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Get medical attention if irritation develops or persists.

### Ingestion

Sand and Gravel dust: Rinse mouth and drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

### Most important symptoms/effects, acute and delayed

Inhaling dust may cause discomfort in the chest, shortness of breath, and coughing.

Prolonged inhalation may cause chronic health effects. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica liberated from this product can cause silicosis, and may cause cancer.

### 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. Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin and lung (including asthma and other breathing disorders). If addicted to tobacco, smoking will impair the ability of the lungs to clear themselves of dust.

## 5. Fire-fighting measures

### Suitable extinguishing media

Sand and Gravel is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

### Unsuitable extinguishing media

None known.

### Specific hazards arising from the chemical

No unusual fire or explosion hazards noted. Not a combustible dust.

### Special protective equipment and precautions for firefighters

Use protective equipment appropriate for surrounding materials.

### Fire fighting equipment/instructions

No specific precautions.

### Specific methods

Contact with powerful oxidizing agents may cause fire and/or explosions (see section 10 of SDS).

### General fire hazards

No unusual fire or explosion hazards noted.

## 6. Accidental release measures

### Personal precautions, and emergency procedures

Wear appropriate protective equipment and clothing during clean-up of materials that contain or may liberate sand and gravel dust.

### Methods and materials for containment and cleaning up

Spilled material, where dust is generated, may overexpose cleanup personnel to respirable crystalline silica-containing dust. Do not dry sweep or use compressed air for clean-up. Wetting of spilled material and/or use of respiratory protective equipment may be necessary.

### Environmental precautions

Avoid discharge of fine particulate matter into drains or water courses.

## 7. Handling and storage

### Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage,

Avoid dust formation or accumulation.

## 8. Exposure controls/personal protection

**Occupational exposure limits** 1 – Value equivalent to OSHA formulas (29 CFR 1910.1000, 29 CFR 1917, 29 CFR 1918).

2 – Value also applies to MSHA Metal / Non-Metal (1973 TLVs at 30 CFR 56/57.5001).

3 – OSHA enforces 0.250 mg/m<sup>3</sup> in construction and shipyards (CPL-03-00-007).

4 – Value also applies to OSHA construction (29 CFR 1926.55, Appendix A) and shipyards (29 CFR 1915.1000, Table Z).

5 – MSHA limit = 10 mg/m<sup>3</sup>.

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

Components	Type	Value	Form
Particulates not otherwise classified (CAS SEQ250)	PEL	5 mg/m <sup>3</sup>	Respirable fraction.
		15mg/m <sup>3</sup>	Total dust.

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

Components	Type	Value	Form
Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m <sup>3</sup>	Total dust. 1,2
		0.1 mg/m <sup>3</sup>	Respirable. 1,2,3
		2.4 mppcf	Respirable. 1,3,4
Particulates not otherwise classified (CAS SEQ250)	TWA	5 mg/m <sup>3</sup>	Respirable fraction. 1
		15 mg/m <sup>3</sup>	Total dust. 1,4,5
		50 mppcf	Total dust. 1,4
		15 mppcf	Respirable fraction. 1
Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)	TWA	0.15 mg/m <sup>3</sup>	Total dust. 1
		0.05 mg/m <sup>3</sup>	Respirable. 1,2
		1.2 mppcf	Respirable. 1

### US. ACGIH Threshold Limit Values®

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.
Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.
		10 mg/m <sup>3</sup>	

### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.05 mg/m <sup>3</sup>	Respirable dust.

#### Biological limit values

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

#### Exposure guidelines

OSHA PELs, MSHA PELs, and ACGIH TLVs are 8-hr TWA values. NIOSH RELs are for TWA exposures up to 10-hr/day and 40-hr/wk. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. Terms including "Particulates Not Otherwise Classified," "Particulates Not Otherwise Regulated," "Particulates Not Otherwise Specified," and "Inert or Nuisance Dust" are often used interchangeably; however, the user should review each agency's terminology for differences in meanings.

#### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour indoors) 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 personal protective equipment as required.

##### Other

Use personal protective equipment as required.

##### Respiratory protection

When handling or performing work with sand and gravel that produces dust or respirable crystalline silica in excess of applicable exposure limits, wear a NIOSH-approved respirator that is properly fitted and is in good condition. Respirators must be used in accordance with all applicable workplace regulations.

##### Thermal hazards

Not anticipated. 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

Physical state

Solid.

Form

Solid, particles.

Color

To be completed by company.

Odor

Not applicable.

Odor threshold

Not applicable.

pH

To be completed by company.

Melting point/freezing point

Not applicable.

Initial boiling point and boiling

Not applicable.

range

Flash point

Non-combustible

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

To be completed by company.

Solubility(ies)

Solubility (water)

Insoluble

Partition coefficient (n-octanol/water)

Not applicable.

Auto-ignition temperature

Not applicable.

Decomposition temperature

Not applicable.

Viscosity

Not applicable.

Other information

Explosive properties

Not applicable.

Flammability

Not applicable.

## 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.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation

Repeated inhalation of respirable crystalline silica (quartz) may cause silicosis, a fibrosis (scarring) of the lungs. Silicosis is irreversible and may be fatal. Silicosis increases the risk of contracting pulmonary tuberculosis. Some studies suggest that repeated inhalation of respirable crystalline silica may cause other adverse health effects including lung and kidney cancer.

Skin contact

Sand and Gravel dust: May cause irritation through mechanical abrasion.

Eye contact

Sand and Gravel dust: May cause irritation through mechanical abrasion.

Ingestion

Not likely, due to the form of the product. However, accidental ingestion of the content may cause discomfort.

Symptoms related to the physical, chemical and toxicological characteristics

Sand and Gravel dust: Discomfort in the chest. Shortness of breath. Coughing.

#### Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	This product is not expected to be a skin hazard.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	
Respiratory sensitization	No respiratory sensitizing effects known.
Skin sensitization	Not known to be a dermal irritant or sensitizer.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Respirable crystalline silica has been classified by IARC and NTP as a known human carcinogen, and classified by ACGIH as a suspected human carcinogen.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Crystalline Silica(Quartz) (CAS 14808-60-7)	1 Carcinogenic to humans.
Respirable Tridymite and Cristobalite (other forms of Crystalline) (CAS Mixture)	1 Carcinogenic to humans.

#### NTP Report on Carcinogens

Crystalline Silica(Quartz) (CAS 14808-60-7)	Known To Be Human Carcinogen.
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#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	Not expected to be a reproductive hazard.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity – repeated exposure	Respirable crystalline silica: May cause damage to organs (lung) through prolonged or repeated exposure.
Aspiration hazard	Due to the physical form of the product it is not an aspiration hazard.
Chronic effects	Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged or repeated exposure. There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney. In particular, the incidence of scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals. To date, the evidence does not conclusively determine a causal relationship between silica exposure and these adverse health effects.

## 12. Ecological information

Ecotoxicity	Not expected to be harmful to aquatic organisms. Discharging sand and gravel dust and fines into waters may increase total suspended particulate (TSP) levels that can be harmful to certain aquatic organisms.
Persistence and degradability	Not applicable.
Bioaccumulative potential	Not applicable.
Mobility in soil	Not applicable.
Other adverse effects	No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, global warming potential) are expected from this component.

## 13. Disposal considerations

Disposal instructions	Do not allow fine particulate matter to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with fine particulates. Dispose of contents in accordance with local/regional/national/international regulations.
Hazardous waste code	Not regulated.
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	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty packaging materials should be recycled or disposed of in accordance with applicable regulations and practices.

## 14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

Not applicable.

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

**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 - 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**

Crystalline Silica(Quartz) (CAS 14808-60-7)

Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

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

Crystalline Silica(Quartz) (CAS 14808-60-7)

Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

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

Crystalline Silica(Quartz) (CAS 14808-60-7)

Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

**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**

Crystalline Silica(Quartz) (CAS 14808-60-7)

**International Inventories****Country(s) or region****Inventory name****On inventory (yes/no)\***

United States &amp; 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** To be completed by company.

**Revision date**

**Version #**

**Disclaimer** To be completed by company.

1/1/2020

1/1/2020

1/1/2020

1/1/2020

1/1/2020

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# SAFETY DATA SHEET

## 1. Identification

Product identifier	DIESEL FUELS
Other means of identification	
SDS number	102-GHS
Synonyms	Diesel Fuels All Grades, Diesel Fuel No.2, Fuel Oil No.2, High Sulfur Diesel Fuel, Low Sulfur Diesel Fuel, Ultra Low Sulfur Diesel Fuel, CARB (California Air Resource Board) Diesel Fuel, Off-Road Diesel Fuel, Dyed Diesel Fuel, X Grade Diesel Fuel, X-1 Diesel Fuel, R5 ULSD, B5 ULS D See section 16 for complete information.
Recommended use	Motor Fuel Refinery feedstock.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer/Supplier	Valero Marketing & Supply Company and Affiliates One Valero Way San Antonio, TX 78269-6000 210-345-4593 CorpHSE@valero.com
General Assistance	210-345-4593
E-Mail	CorpHSE@valero.com
Contact Person	Industrial Hygienist
Emergency Telephone	24 Hour Emergency 866-565-5220 1-800-424-9300 (CHEMTREC USA)

## 2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 2
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

### Label elements



Signal word	Danger
Hazard statement	Flammable liquid and vapor. Harmful if inhaled. Causes skin irritation. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (blood, thymus, liver) through prolonged or repeated exposure. May be fatal if swallowed and enters airways.
Precautionary statement	
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 explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Do not breathe mist/vapors/spray. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area.

DIESEL FUELS

<b>Response</b>	If skin irritation occurs: Get medical advice/attention. 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/shower. If exposed or concerned: Get medical advice/attention. If swallowed: Immediately call a poison center/doctor. Take off contaminated clothing and wash before reuse. In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction.
<b>Storage</b>	Store locked up. Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Fuels; diesel, no. 2	68476-34-6	85 - 100
Biodiesel - Fatty acid methyl esters	67762-38-3	0 - 10
Fuels, diesel, C9-18-alkane branched and linear	1159170-26-9	0 - 5
n-Nonane	111-84-2	1 - 3
Octane (All isomers)	111-65-9	1 - 2
Hexane (Other isomers)	96-14-0	0 - 1
Naphthalene	91-20-3	0 - 1
n-Heptane	142-82-5	0 - 1
n-Hexane	110-54-3	0 - 1

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Skin contact</b>	Remove contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops or persists. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes. If high pressure injection under the skin occurs, always seek medical attention.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Do not give mouth-to-mouth resuscitation. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Unconsciousness. Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Edema. Liver enlargement. Jaundice. Conjunctivitis. Proteinuria. Defatting of the skin. Rash. The toxicological properties of this product have not been thoroughly investigated. Use appropriate precautions. Hydrogen sulfide, a highly toxic gas, may be present. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels in the atmosphere.
<b>Indication of immediate medical attention and special treatment needed</b>	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed. The toxicological properties of this material have not been fully investigated.
<b>General information</b>	If exposed or concerned: get medical attention/advice. 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. Wash contaminated clothing before re-use.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
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**Unsuitable extinguishing media**

Do not use a solid water stream as it may scatter and spread fire.

**Specific hazards arising from the chemical**

The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Thermal decomposition or combustion may liberate toxic gases or fumes.

**Special protective equipment and precautions for firefighters**

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

**Fire-fighting equipment/instructions**

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk. In the event of fire, cool tanks with water spray. Cool containers exposed to flames with water until well after the fire is out. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Water runoff can cause environmental damage. Use compatible foam to minimize vapor generation as needed.

## 6. Accidental release measures

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

Keep unnecessary personnel away. Local authorities should be advised if significant spills cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the SDS for Personal Protective Equipment.

**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Local authorities should be advised if significant spillages cannot be contained. Stop leak if you can do so without risk. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.

Use non-sparking tools and explosion-proof equipment.

Small Spills: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. This material and its container must be disposed of as hazardous waste.

Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Do not allow material to contaminate ground water system. Should not be released into the environment.

Clean up in accordance with all applicable regulations.

**Environmental precautions**

If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Flammable. Review Firefighting Measures, Section 5, before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g. by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Use compatible foam to minimize vapor generation as needed. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 1-800-424-8802. For highway or railways spills, contact Chemtrec at 1-800-424-9300.

## 7. Handling and storage

**Precautions for safe handling**

Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Wear personal protective equipment. Avoid breathing mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Avoid prolonged exposure. Use only with adequate ventilation. Wash thoroughly after handling. The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. When using, do not eat, drink or smoke. Avoid release to the environment.

Conditions for safe storage,  
including any incompatibilities

Flammable liquid storage. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. The pressure in sealed containers can increase under the influence of heat. Keep container tightly closed in a cool, well-ventilated place. Keep away from food, drink and animal feedings. Keep out of the reach of children.

## 8. Exposure controls/personal protection

### Occupational exposure limits

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

Components	Type	Value
Naphthalene (CAS 91-20-3)	PEL	50 mg/m3 10 ppm
n-Heptane (CAS 142-82-5)	PEL	2000 mg/m3 500 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m3 500 ppm
Octane (All isomers) (CAS 111-65-9)	PEL	2350 mg/m3 500 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Fuels, diesel, no. 2 (CAS 68476-34-6)	TWA	100 mg/m3	Inhalable fraction and vapor.
Hexane (Other isomers) (CAS 96-14-0)	STEL	1000 ppm	
Naphthalene (CAS 91-20-3)	TWA	500 ppm	
	STEL	15 ppm	
	TWA	10 ppm	
n-Heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	
n-Hexane (CAS 110-54-3)	TWA	50 ppm	
n-Nonane (CAS 111-84-2)	TWA	200 ppm	
Octane (All isomers) (CAS 111-65-9)	TWA	300 ppm	

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Hexane (Other isomers) (CAS 96-14-0)	Ceiling	1800 mg/m3
		510 ppm
	TWA	350 mg/m3
		100 ppm
Naphthalene (CAS 91-20-3)	STEL	75 mg/m3
		15 ppm
	TWA	50 mg/m3
		10 ppm
n-Heptane (CAS 142-82-5)	Ceiling	1800 mg/m3
		440 ppm
	TWA	350 mg/m3
		85 ppm
n-Hexane (CAS 110-54-3)	TWA	180 mg/m3
		50 ppm
n-Nonane (CAS 111-84-2)	TWA	1050 mg/m3
		200 ppm
Octane (All isomers) (CAS 111-65-9)	Ceiling	1800 mg/m3
		385 ppm
	TWA	350 mg/m3
		75 ppm

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## Biological limit values

### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedione, without hydrolysis	Urine	*
	0.4 mg/l	2,5-Hexanedione, without hydrolysis		*

\* - For sampling details, please see the source document.

## Exposure guidelines

### US - California OELs: Skin designation

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

### US ACGIH Threshold Limit Values: Skin designation

Fuels, diesel, no. 2 (CAS 68476-34-6)

Can be absorbed through the skin.

Naphthalene (CAS 91-20-3)

Can be absorbed through the skin.

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

### Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses. If splash potential exists, wear full face shield or chemical goggles.

#### Skin protection

##### Hand protection

Wear chemical-resistant, impervious gloves. Suitable gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

##### Other

Full body suit and boots are recommended when handling large volumes or in emergency situations. Flame retardant protective clothing is recommended.

#### Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workplace exposure limits for product or components are exceeded, NIOSH approved equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Consult supervisor for special handling instructions. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Appearance

Liquid (may be dyed red).

#### Physical state

Liquid.

#### Form

Liquid.

#### Color

Clear. Straw.

### Odor

Kerosene (strong).

### Odor threshold

Not available.

### pH

Not available.

### Melting point/freezing point

-60.07 °F (-51.15 °C) Estimated

### Initial boiling point and boiling range

325 - 700 °F (162.78 - 371.11 °C)

### Flash point

> 100.0 °F (> 37.8 °C) Closed Cup

### Evaporation rate

0.02

### Flammability (solid, gas)

Not available.

**Upper/lower flammability or explosive limits**

Flammability limit - lower (%)	0.4 %
Flammability limit - upper (%)	8 %
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 1 mm Hg (20°C)
Vapor density	3 (Air = 1)
Relative density	0.82 - 0.87
Relative density temperature	60 °F (15.56 °C)
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	494.96 °F (257.2 °C)
Decomposition temperature	Not available.
Viscosity	2 - 4.5 mm <sup>2</sup> /s

**10. Stability and reactivity**

Reactivity	Stable at normal conditions.
Chemical stability	Stable under normal temperature conditions and recommended use.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks. Ignition sources. Contact with incompatible materials. Do not pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

**11. Toxicological information****Information on likely routes of exposure**

Ingestion	May be fatal if swallowed and enters airways.
Inhalation	Harmful if inhaled. In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea.
Skin contact	Causes skin irritation.
Eye contact	May cause eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Unconsciousness. Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Edema. Liver enlargement. Jaundice. Conjunctivitis. Proteinuria. Defatting of the skin. Rash. The toxicological properties of this product have not been thoroughly investigated. Use appropriate precautions.

**Information on toxicological effects**

Acute toxicity	Harmful if inhaled. Harmful: may cause lung damage if swallowed. The toxicological properties of this material have not been fully investigated.
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Components	Species	Test Results
Fuels, diesel, no. 2 (CAS 68476-34-6)		
Acute Inhalation LC50	Rat	4.1 mg/l, 4 hours

Components	Species	Test Results
Naphthalene (CAS 91-20-3)		
Acute		
Dermal		
LD50	Rabbit	> 2 g/kg
Oral		
LD50	Rat	490 mg/kg
n-Heptane (CAS 142-82-5)		
Acute		
Inhalation		
LC50	Rat	103 mg/l, 4 Hours
n-Hexane (CAS 110-54-3)		
Acute		
Oral		
LD50	Rat	28710 mg/kg
n-Nonane (CAS 111-84-2)		
Acute		
Inhalation		
LC50	Rat	3200 mg/l, 4 Hours
Octane (All isomers) (CAS 111-65-9)		
Acute		
Inhalation		
LC50	Rat	118 mg/l, 4 Hours
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.	
Respiratory or skin sensitization		
Respiratory sensitization	Based on available data, the classification criteria are not met.	
Skin sensitization	Based on available data, the classification criteria are not met.	
Germ cell mutagenicity	Based on available data, the classification criteria are not met.	
Carcinogenicity	Suspected of causing cancer. International Agency for Research on Cancer (IARC): Whole diesel engine exhaust – IARC Group 1. Exposure may cause lung cancer and also noted a positive association with an increased risk of bladder cancer. Diesel exhaust has been reported to be an occupational hazard due to NIOSH-reported potential carcinogenic properties.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Fuels, diesel, no. 2 (CAS 68476-34-6)	3 Not classifiable as to carcinogenicity to humans.	
Naphthalene (CAS 91-20-3)	2B Possibly carcinogenic to humans.	
NTP Report on Carcinogens		
Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.	
Reproductive toxicity	Suspected of damaging fertility or the unborn child. Naphthalene interferes with embryo development in experimental animals at dose levels that cause maternal toxicity. In humans, excessive exposure to this agent may cause hemolytic anemia in the mother and fetus.	
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.	
Specific target organ toxicity - repeated exposure	May cause damage to the following organs through prolonged or repeated exposure: Blood. Liver. Thymus.	
Aspiration hazard	May be fatal if swallowed and enters airways.	
Chronic effects	Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication. Repeated exposure to naphthalene may cause cataracts, allergic skin rashes, destruction of red blood cells, and anemia, jaundice, kidney and liver damage. Danger of serious damage to health by prolonged exposure. Prolonged or repeated overexposure may cause central nervous system, kidney, liver, and lung damage.	

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**Further information**

Symptoms may be delayed. Hydrogen sulfide, a highly toxic gas, may be present. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels in the atmosphere. Toxicological properties of this material have not been fully investigated.

**12. Ecological information****Ecotoxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Components		Species	Test Results
Fuels, diesel, no. 2 (CAS 68476-34-6)			
Aquatic			
Acute			
Crustacea	EL50	Daphnia magna	68 mg/l, 48 hours
Fish	LL50	Oncorhynchus mykiss	65 mg/l, 96 hours
Naphthalene (CAS 91-20-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	0.95 - 1.62 mg/l, 96 hours
n-Heptane (CAS 142-82-5)			
Aquatic			
Fish	LC50	Western mosquitofish (Gambusia affinis)	4924 mg/l, 96 hours
n-Hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Partition coefficient n-octanol / water (log Kow)**

Hexane (Other isomers) (CAS 96-14-0)	3.6
Octane (All isomers) (CAS 111-65-9)	5.18
n-Heptane (CAS 142-82-5)	4.66
n-Hexane (CAS 110-54-3)	3.9
n-Nonane (CAS 111-84-2)	5.46

**Mobility in soil** Not available.

**Other adverse effects** Not available.

**13. Disposal considerations**

**Disposal instructions** Dispose in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste. Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

**Hazardous waste code** D001: Waste Flammable material with a flash point <140 °F

**US RCRA Hazardous Waste U List: Reference**

Naphthalene (CAS 91-20-3) U165

**Waste from residues / unused products** Dispose of in accordance with local regulations.

**Contaminated packaging** Offer rinsed packaging material to local recycling facilities.

**14. Transport information****DOT**

UN number	UN1202
UN proper shipping name	Diesel fuel
Transport hazard class(es)	
Class	Combustible Liquid
Subsidiary risk	-
Packing group	III

**DIESEL FUELS**

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

Prepared by 3E Company

**Environmental hazards**

Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	144, B1, IB3, T2, TP1
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	242

**IATA**

UN number	UN1202
UN proper shipping name	Diesel fuel
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	Yes
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

UN number	UN1202
UN proper shipping name	DIESEL FUEL
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	

Marine pollutant Yes

EmS F-E, S-E

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 Not applicable. However, this product is a liquid and if transported in bulk covered under MARPOL 73/78, Annex I.

**15. Regulatory information****US federal regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

n-Nonane (CAS 111-84-2) 1.0 % One-Time Export Notification only.

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

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Hexane (Other isomers) (CAS 96-14-0)	LISTED
Naphthalene (CAS 91-20-3)	LISTED
n-Heptane (CAS 142-82-5)	LISTED
n-Hexane (CAS 110-54-3)	LISTED
n-Nonane (CAS 111-84-2)	LISTED
Octane (All isomers) (CAS 111-65-9)	LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

Hazard categories	Immediate Hazard - No
	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

**DIESEL FUELS**

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

Prepared by 3E Company



**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Naphthalene	91-20-3	0 - 1

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

Naphthalene (CAS 91-20-3)

n-Hexane (CAS 110-54-3)

**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**

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**US. Massachusetts RTK - Substance List**

Hexane (Other isomers) (CAS 96-14-0)

Naphthalene (CAS 91-20-3)

n-Heptane (CAS 142-82-5)

n-Hexane (CAS 110-54-3)

n-Nonane (CAS 111-84-2)

Octane (All isomers) (CAS 111-65-9)

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

Fuels, diesel, no. 2 (CAS 68476-34-6)

Naphthalene (CAS 91-20-3)

n-Heptane (CAS 142-82-5)

n-Hexane (CAS 110-54-3)

n-Nonane (CAS 111-84-2)

Octane (All isomers) (CAS 111-65-9)

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

Fuels, diesel, no. 2 (CAS 68476-34-6)

Hexane (Other isomers) (CAS 96-14-0)

Naphthalene (CAS 91-20-3)

n-Heptane (CAS 142-82-5)

n-Hexane (CAS 110-54-3)

n-Nonane (CAS 111-84-2)

Octane (All isomers) (CAS 111-65-9)

**US. Rhode Island RTK**

Naphthalene (CAS 91-20-3)

n-Hexane (CAS 110-54-3)

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

Benzene (CAS 71-43-2)

Toluene (CAS 108-88-3)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
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)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

**DIESEL FUELS**

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

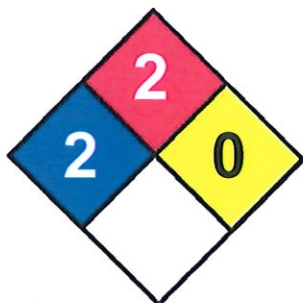
Issue date 13-May-2013

Revision date 23-May-2014

Version # 04

Further information HMIS® is a registered trade and service mark of the NPCA.

NFPA Ratings



### Disclaimer

This material Safety Data Sheet (SDS) was prepared in accordance with 29 CFR 1910.1200 by Valero Marketing & Supply Co., ("VALERO"). VALERO does not assume any liability arising out of product use by others. The information, recommendations, and suggestions presented in this SDS are based upon test results and data believed to be reliable. The end user of the product has the responsibility for evaluating the adequacy of the data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use, the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all the scientific and study information in the format of this document, plus additional information may be necessary under exceptional conditions of use, or because of applicable laws or government regulations.

# SPX DEF (DIESEL EXHAUST FLUID)

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations  
Revision Date: 12/13/2021

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

Product Form: Mixture

Product Name: SPX DEF (DIESEL EXHAUST FLUID)

Synonyms: DEF

### 1.2. Intended Use of the Product

Use of the substance/mixture: Diesel Exhaust NOx Reducing Agent

### 1.3. Name, Address, and Telephone of the Responsible Party

#### Company

Pilot Thomas Logistics  
1051 Mustang Drive, Suite 600  
Grapevine, TX 76051



1-844-785-8326

www.pilotthomas.com

### 1.4. Emergency Telephone Number

Emergency Number

PERS 1-800-633-8253 Customer #1898

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Not classified

### 2.2. Label Elements

GHS-US Labeling

No labeling applicable

### 2.3. Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product Identifier	%	Classification (GHS-US)
Water	(CAS No) 7732-18-5	66.8 - 68.2	Not classified
Urea	(CAS No) 57-13-6	31.8 - 33.2	Not classified

Full text of H-phrases: 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:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. 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. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/Injuries:** Not expected to present a significant hazard under anticipated conditions of normal use.

**Symptoms/Injuries After Inhalation:** Prolonged exposure to liquid may cause a mild irritation.

**Symptoms/Injuries After Skin Contact:** May cause mild skin irritation.

**Symptoms/Injuries After Eye Contact:** Prolonged exposure to liquid may cause a mild irritation.

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.



# SPX DEF (DIESEL EXHAUST FLUID)

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

#### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** 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

**General Measures:** Avoid breathing (vapor, mist, spray). Avoid prolonged contact with eyes, skin and clothing.

##### 6.1.1. For Non-emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

##### 6.1.2. For Emergency Responders

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area.

#### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

#### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container.

#### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

### SECTION 7: HANDLING AND STORAGE

#### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** When heated to decomposition, emits toxic fumes.

**Precautions for Safe Handling:** Avoid breathing vapors, mist, spray. Avoid prolonged contact with eyes, skin and clothing.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

#### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures, incompatible materials.

**Incompatible Products:** Strong acids. Strong bases. Strong oxidizers. Hypochlorites.

#### 7.3. Specific End Use(s)

Diesel Exhaust NOx Reducing Agent.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control Parameters

No additional information available

#### 8.2. Exposure Controls

##### Appropriate Engineering Controls

: Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

##### Personal Protective Equipment

: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



# SPX DEF (DIESEL EXHUAUST FLUID)

## Safety Data Sheet

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Materials for Protective Clothing	: Chemically resistant materials and fabrics.
Hand Protection	: Wear chemically resistant protective gloves.
Eye Protection	: Chemical goggles or safety glasses.
Respiratory Protection	: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.
Other Information	: When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Colorless, clear
Odor	: Slight Ammonia
Odor Threshold	: No data available
pH	: 9.8 - 10
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: 104 °C (219.20 °F)
Flash Point	: Non-flammable
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: No data available
Specific Gravity	: 1.087-1.093 @20°C (68°F)
Solubility	: Soluble in water.
Partition Coefficient: N-octanol/water	: No data available
Viscosity	: No data available

### 9.2. Other Information No additional information available

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. **Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. **Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. **Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. **Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures. Incompatible materials.
- 10.5. **Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers. Hypochlorites.
- 10.6. **Hazardous Decomposition Products:** Nitrogen oxides. Irritating fumes.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

Acute Toxicity: Not classified

Water (7732-18-5)	
LD50 Oral Rat	> 90000 mg/kg
Urea (57-13-6)	
LD50 Oral Rat	8471 mg/kg

Skin Corrosion/Irritation: Not classified pH: 9.8 - 10

Serious Eye Damage/Irritation: Not classified pH: 9.8 - 10

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified



# SPX DEF (DIESEL EXHUAUST FLUID)

## Safety Data Sheet

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**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Prolonged exposure to liquid may cause a mild irritation.

**Symptoms/Injuries After Skin Contact:** May cause mild skin irritation.

**Symptoms/Injuries After Eye Contact:** Prolonged exposure to liquid may cause a mild irritation.

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Urea (57-13-6)

LC50 Fish 1	16200 - 18300 mg/l (Exposure time: 96 h - Species: Poecilia reticulata)
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EC50 Daphnia 1	3910 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
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### 12.2. Persistence and Degradability

Diesel Exhaust Fluid

Persistence and Degradability	Not established.
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### 12.3. Bioaccumulative Potential

Diesel Exhaust Fluid

Bioaccumulative Potential	Not established.
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Urea (57-13-6)

BCF fish 1	< 10
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Log Pow	-1.59 (at 25 °C)
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**12.4. Mobility in Soil** No additional information available

**12.5. Other Adverse Effects**

**Other Information** : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, and international regulations.

## SECTION 14: TRANSPORT INFORMATION

**14.1. In Accordance with DOT** Not regulated for transport

**14.2. In Accordance with IMDG** Not regulated for transport

**14.3. In Accordance with IATA** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1 US Federal Regulations

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Urea (57-13-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2 US State Regulations

Urea (57-13-6)

U.S. - Minnesota - Hazardous Substance List

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision Date** : 09/23/2014

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

*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.*

SDS US (GHS HazCom)



## Safety Data Sheet California CARB Compliant

### 1 - Identification

**Product Name:** WD-40 Multi-Use Product Aerosol

**Product Use:** Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion

**Restrictions on Use:** None identified

**SDS Date Of Preparation:** August 2, 2021

**Manufacturer:** WD-40 Company

**Address:** 9715 Businesspark Avenue  
San Diego, California, USA  
92131

**Telephone:**

**Emergency:** 1-888-324-7596

**Information:** 1-888-324-7596

**Chemical Spills:** 1-800-424-9300 (Chemtrec)  
1-703-527-3887 (International Calls)

### 2 – Hazards Identification

**Hazcom 2012/GHS Classification:**

Flammable Aerosol Category 1

Gas Under Pressure: Compressed Gas

Aspiration Toxicity Category 1

Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

**Label Elements:**



#### **DANGER!**

Extremely Flammable Aerosol.

Contains gas under pressure; may explode if heated.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

#### **Prevention**

Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Avoid breathing vapors or mists.

Use only outdoors or in a well-ventilated area.

#### **Response**

IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

#### **Storage**

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

#### **Disposal**

Dispose of contents and container in accordance with local and national regulations.

### 3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	US Hazcom 2012/ GHS Classification
LVP Aliphatic Hydrocarbon	64742-47-8	45-50%	Aspiration Toxicity Category 1
Petroleum Base Oil	64742-56-9 64742-65-0 64742-53-6 64742-54-7 64742-71-8	<35%	Not Hazardous
Aliphatic Hydrocarbon	64742-47-8	<25%	Flammable Liquid Category 3 Aspiration Toxicity Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)
Carbon Dioxide	124-38-9	2-3%	Simple Asphyxiant Gas Under Pressure, Compressed Gas

Note: The specific chemical identity and exact percentages are a trade secret.

### 4 – First Aid Measures

**Ingestion (Swallowed):** Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

**Eye Contact:** Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.

**Skin Contact:** Wash with soap and water. If irritation develops and persists, get medical attention.

**Inhalation (Breathing):** If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

**Signs and Symptoms of Exposure:** Harmful or fatal if swallowed. Aspiration of liquid into the lungs during swallowing or vomiting may cause lung damage. May cause eye and respiratory irritation. Inhalation of mists or vapors may cause drowsiness, dizziness and other nervous system effects. Skin contact may cause drying of the skin.

**Indication of Immediate Medical Attention/Special Treatment Needed:** Immediate medical attention is needed for ingestion.

### 5 – Fire Fighting Measures

**Suitable (and unsuitable) Extinguishing Media:** Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.

**Specific Hazards Arising from the Chemical:** Extremely flammable aerosol. Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Combustion will produce oxides of carbon and hydrocarbons.

**Special Protective Equipment and Precautions for Fire-Fighters:** Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

### 6 – Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

**Methods and Materials for Containment/Cleanup:** Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

### 7 – Handling and Storage

**Precautions for Safe Handling:** Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

**Conditions for Safe Storage:** Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

## 8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
LVP Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m3 TWA (Inhalable) ACGIH TLV (as Mineral oil) 5 mg/m3 TWA OSHA PEL (as Oil mist, mineral)
Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)
Carbon Dioxide	5000 ppm TWA, 30,000 ppm STEL ACGIH TLV 5000 ppm TWA OSHA PEL

### The Following Controls are Recommended for Normal Consumer Use of this Product

**Appropriate Engineering Controls:** Use in a well-ventilated area.

**Personal Protection:**

**Eye Protection:** Avoid eye contact. Always spray away from your face.

**Skin Protection:** Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

**Respiratory Protection:** None needed for normal use with adequate ventilation.

### For Bulk Processing or Workplace Use the Following Controls are Recommended

**Appropriate Engineering Controls:** Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

**Personal Protection:**

**Eye Protection:** Safety goggles recommended where eye contact is possible.

**Skin Protection:** Wear chemical resistant gloves.

**Respiratory Protection:** None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

**Work/Hygiene Practices:** Wash with soap and water after handling.

## 9 – Physical and Chemical Properties

Appearance:	Light green to amber liquid	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8%
Odor:	Mild petroleum odor	Vapor Pressure:	95-115 PSI @ 70°F
Odor Threshold:	Not established	Vapor Density:	Greater than 1 (air=1)
pH:	Not Applicable	Relative Density:	0.8 – 0.82 @ 60°F
Melting/Freezing Point:	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	361 - 369°F (183 - 187°C)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	138°F (59°C) Tag Closed Cup (liquid)	Autoignition Temperature:	Not established
Evaporation Rate:	Not established	Decomposition Temperature:	Not established
Flammability (solid, gas):	Flammable Aerosol	Viscosity:	2.79-2.96 cSt @ 100°F
VOC:	24.1%	Pour Point:	-63°C (-81.4°F) ASTM

	MIR=0.43gO3/gVOC	
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		D-97
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## 10 – Stability and Reactivity

**Reactivity:** Not reactive under normal conditions

**Chemical Stability:** Stable

**Possibility of Hazardous Reactions:** May react with strong oxidizers generating heat.

**Conditions to Avoid:** Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.

**Incompatible Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide.

## 11 – Toxicological Information

### Symptoms of Overexposure:

**Inhalation:** High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

**Skin Contact:** Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.

**Eye Contact:** Contact may be irritating to eyes. May cause redness and tearing.

**Ingestion:** This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

**Chronic Effects:** None expected.

**Carcinogen Status:** None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.

**Reproductive Toxicity:** None of the components is considered a reproductive hazard.

### Numerical Measures of Toxicity:

Acute Toxicity Estimates: Oral > 5,000 mg/kg; Dermal >2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.

## 12 – Ecological Information

**Ecotoxicity:** No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms

**Persistence and Degradability:** Components are readily biodegradable.

**Bioaccumulative Potential:** Bioaccumulation is not expected based on an assessment of the ingredients.

**Mobility in Soil:** No data available

**Other Adverse Effects:** None known

## 13 - Disposal Considerations

If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Do not puncture or incinerate containers, even empty. Dispose in accordance with federal, state, and local regulations.

## 14 – Transportation Information

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty

(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)

IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY

ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.



## 15 – Regulatory Information

### U.S. Federal Regulations:

**CERCLA 103 Reportable Quantity:** This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

### SARA TITLE III:

**Hazard Category For Section 311/312:** Refer to Section 2 for the OSHA Hazard Classification.

**Section 313 Toxic Chemicals:** This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

**Section 302 Extremely Hazardous Substances (TPQ):** None

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of this product are listed on the TSCA inventory.

**California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):** This product does not require a California Proposition 65 warning.

**VOC Regulations:** This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

**Canadian Environmental Protection Act:** All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification

## 16 – Other Information

### HMIS Hazard Rating:

**Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)**

Revision Date: August 2, 2021

Supersedes: March 5, 2019

Revision Summary: Section 9: Appearance

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed by: I. Kowalski

Regulatory Affairs Dept.

1012200/No.0084706

Product Name: MOBIL HYDRAULIC 10W  
Revision Date: 20 Oct 2021  
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## SAFETY DATA SHEET

### SECTION 1

### PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT

Product Name: MOBIL HYDRAULIC 10W  
Product Description: Base Oil and Additives  
Product Code: 20152060D010, 581637-80  
Intended Use: Hydraulic fluid

#### COMPANY IDENTIFICATION

Supplier: AMPOL AUSTRALIA PETROLEUM PTY LTD  
ABN 17 000 032 128  
29-33 Bourke Rd  
Alexandria  
New South Wales 2015 Australia

24 Hour Emergency Telephone	1800 033 111
Product Technical Information	1300364169
Supplier General Contact	+612 9250-5000
FAX	+612 9250-5742

### SECTION 2

### HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

#### Other hazard information:

#### Physical / Chemical Hazards:

No significant hazards.

#### Health Hazards:

High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation.

#### Environmental Hazards:

No significant hazards.

**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.

Product Name: MOBIL HYDRAULIC 10W  
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### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

#### Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
ZINC ALKYL DITHIOPHOSPHATE	113706-15-3	1 - < 2.5%	H303, H315, H318, H401, H411

\*All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Other ingredients determined not to be hazardous up to 100%.

### SECTION 4 FIRST AID MEASURES

#### INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use 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. 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

First aid is normally not required. Seek medical attention if discomfort occurs.

#### NOTE TO PHYSICIAN

None

### SECTION 5 FIRE FIGHTING MEASURES

#### EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight streams of water

#### FIRE FIGHTING

**Fire Fighting Instructions:** Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters 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.



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**Unusual Fire Hazards:** Pressurised mists may form a flammable mixture.

**Hazardous Combustion Products:** Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulphur oxides

#### FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >200°C (392°F) [ASTM D-92]

**Flammable Limits (Approximate volume % in air):** LEL: 0.9 UEL: 7.0

**Autoignition Temperature:** N/D

### 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.

#### PROTECTIVE MEASURES

Avoid contact with spilled 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: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor 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 hydrocarbons are recommended. 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:** Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

**Water Spill:** Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. 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:** Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

### SECTION 7

### HANDLING AND STORAGE

Product Name: MOBIL HYDRAULIC 10W

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## HANDLING

Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing 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.

## STORAGE

The type of container used to store the material may affect static accumulation and dissipation. Do not store in open or unlabelled containers. Keep away from incompatible materials.

Material is defined under the National Standard [NOHSC:1015] Storage and Handling of Workplace Dangerous Goods.

### SECTION 8

### EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits/standards for materials that can be formed when handling this product:**

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

## Biological limits

No biological limits allocated.

## ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

## 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:

Particulate

No special requirements under ordinary conditions of use and with adequate ventilation.

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/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.



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**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:

Nitrile, Viton

No protection is ordinarily required under normal conditions of use.

**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:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**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. Practise 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

**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.

### GENERAL INFORMATION

**Physical State:** Liquid

**Colour:** Amber

**Odour:** Characteristic

**Odour Threshold:** N/D

### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 15 °C):** 0.88 [ASTM D4052]

**Flammability (Solid, Gas):** N/A

**Flash Point [Method]:** >200°C (392°F) [ASTM D-92]

**Flammable Limits (Approximate volume % in air):** LEL: 0.9 UEL: 7.0

**Autoignition Temperature:** N/D

**Boiling Point / Range:** > 316°C (600°F) [Estimated]

**Decomposition Temperature:** N/D

**Vapour Density (Air = 1):** > 2 at 101 kPa [Estimated]

**Vapour Pressure:** < 0.013 kPa (0.1 mm Hg) at 20 °C [Estimated]

**Evaporation Rate (n-butyl acetate = 1):** N/D

**pH:** N/A

**Log Pow (n-Octanol/Water Partition Coefficient):** > 3.5 [Estimated]

**Solubility in Water:** Negligible

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**Viscosity:** 37 cSt (37 mm<sup>2</sup>/sec) at 40 °C | 6.5 cSt (6.5 mm<sup>2</sup>/sec) at 100°C [ASTM D 445]  
**Oxidizing Properties:** See Hazards Identification Section.

#### OTHER INFORMATION

**Freezing Point:** N/D  
**Melting Point:** N/A  
**Pour Point:** -18°C (0°F) [ASTM D97]  
**DMSO Extract (mineral oil only), IP-346:** < 3 %wt

### SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Excessive heat. High energy sources of ignition.

**INCOMPATIBLE MATERIALS:** Strong oxidisers

**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
<b>Inhalation</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
<b>Ingestion</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
<b>Skin</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
<b>Eye</b>	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
<b>Sensitisation</b>	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
<b>Aspiration:</b> Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
<b>Germ Cell Mutagenicity:</b> No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
<b>Carcinogenicity:</b> No end point data for material.	Not expected to cause cancer. Based on assessment of the components.



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<b>Reproductive Toxicity:</b> No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
<b>Lactation:</b> No end point data for material.	Not expected to cause harm to breast-fed children.
<b>Specific Target Organ Toxicity (STOT)</b>	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

## OTHER INFORMATION

### Contains:

Base oil, severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitising in test animals.

### IARC Classification:

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = IARC 1

2 = IARC 2A

3 = IARC 2B

## 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 -- Not expected to be harmful to aquatic organisms.

### MOBILITY

Base oil 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:

Base oil component -- Expected to be inherently biodegradable

### BIOACCUMULATION POTENTIAL

Base oil component -- 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.

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## 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. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

**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 (ADG):** Not Regulated for Land Transport

**SEA (IMDG):** Not Regulated for Sea Transport according to IMDG-Code

**Marine Pollutant:** No

**AIR (IATA):** Not Regulated for Air Transport

## SECTION 15 REGULATORY INFORMATION

This material is not considered hazardous according to Australia Model Work Health and Safety Regulations.

Product is not regulated according to Australian Dangerous Goods Code.

No Poison Schedule number allocated by the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act.

AS1940 COMBUSTIBLE CLASS: C2

## REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories : AIIC, DSL, ENCS, IECSC, ISHL, KECI, PICCS, TCSI, TSCA

## SECTION 16 OTHER INFORMATION

### KEY TO ABBREVIATIONS AND ACRONYMS:

N/D = Not determined, N/A = Not applicable, STEL = Short-Term Exposure Limit, TWA = Time-Weighted Average

**KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):**



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H303: May be harmful if swallowed; Acute Tox Oral, Cat 5  
H315: Causes skin irritation; Skin Corr/Irritation, Cat 2  
H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1  
H401: Toxic to aquatic life; Acute Env Tox, Cat 2  
H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**

Composition: Component Table information was modified.  
Section 01: Company Mailing Address information was modified.  
Section 01: Product Intended Use information was modified.  
Section 08: Exposure Limits Table information was deleted.  
Section 16: HCode Key information was modified.

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DGN: 7082576DAU (1012272)

Prepared by: Exxon Mobil Corporation  
EMBSI, Clinton NJ USA  
Contact Point: See Section 1 for Local Contact number

**End of (M)SDS**



Product Name: MOBIL DELVAC 1 TRANSMISSION FLUID 50  
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## SAFETY DATA SHEET

SECTION 1	PRODUCT AND COMPANY IDENTIFICATION
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### PRODUCT

Product Name: MOBIL DELVAC 1 TRANSMISSION FLUID 50  
Product Description: Synthetic Base Stocks and Additives  
Product Code: 201520101040, 615609-60  
Intended Use: Manual transmission fluid

### COMPANY IDENTIFICATION

Supplier: AMPOL AUSTRALIA PETROLEUM PTY LTD  
ABN 17 000 032 128  
29-33 Bourke Rd  
Alexandria  
New South Wales 2015 Australia

24 Hour Emergency Telephone	1800 033 111
Product Technical Information	1300364169
Supplier General Contact	+612 9250-5000
FAX	+612 9250-5742

SECTION 2	HAZARDS IDENTIFICATION
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This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

**Contains:** N-PHENYL-1-NAPHTHYLAMINE May produce an allergic reaction.

#### Other hazard information:

#### Physical/Chemical Hazards:

No significant hazards.

#### Health Hazards:

High-pressure injection under skin may cause serious damage. Mildly irritating to skin. May be irritating to the eyes, nose, throat, and lungs.

#### Environmental Hazards:

Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert

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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.

#### Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
N-PHENYL-1-NAPHTHYLAMINE	90-30-2	0.1 - < 1%	H302, H317, H373, H400(M factor 1), H410(M factor 1)
AMINES, C11-14 BRANCHED ALKYL MONOHEXYL AND DIHEXYL PHOSPHATES	80939-62-4	1 - < 5%	H315, H319(2A), H401, H411
DIISODECYL ADIPATE	27178-16-1	5 - 10%	None

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Other ingredients determined not to be hazardous up to 100%.

### SECTION 4 FIRST AID MEASURES

#### INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use 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

First aid is normally not required. Seek medical attention if discomfort occurs.

#### NOTE TO PHYSICIAN

None

### 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



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## FIRE FIGHTING

**Fire Fighting Instructions:** Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters 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.

**Hazardous Combustion Products:** Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulphur oxides

## FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >190°C (374°F) [ASTM D-92]

**Flammable Limits (Approximate volume % in air):** LEL: 0.9 UEL: 7.0

**Autoignition Temperature:** N/D

## 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.

### 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.

### SPILL MANAGEMENT

**Land Spill:** Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

**Water Spill:** Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. 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:** Dyke 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 contact with skin. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during

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switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing 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.

## STORAGE

The type of container used to store the material may affect static accumulation and dissipation. Do not store in open or unlabelled containers.

Material is defined under the National Standard [NOHSC:1015] Storage and Handling of Workplace Dangerous Goods.

## 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
DIISODECYL ADIPATE		TWA	5 mg/m3			ExxonMobil

Exposure limits/standards for materials that can be formed when handling this product:

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

### Biological limits

No biological limits allocated.

### ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

### 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:

Particulate

No special requirements under ordinary conditions of use and with adequate ventilation.



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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/vapour 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:

Nitrile, Viton

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. Practise 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

**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.

### GENERAL INFORMATION

**Physical State:** Liquid

**Colour:** Amber

**Odour:** Characteristic

**Odour Threshold:** N/D

### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 15 °C):** 0.86

**Flammability (Solid, Gas):** N/A

**Flash Point [Method]:** >190°C (374°F) [ASTM D-92]

**Flammable Limits (Approximate volume % in air):** LEL: 0.9 UEL: 7.0

**Autoignition Temperature:** N/D

**Boiling Point / Range:** > 316°C (601°F)

**Decomposition Temperature:** N/D

**Vapour Density (Air = 1):** > 2 at 101 kPa

**Vapour Pressure:** < 0.013 kPa (0.1 mm Hg) at 20 °C

**Evaporation Rate (n-butyl acetate = 1):** N/D

**pH:** N/A



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**Log Pow (n-Octanol/Water Partition Coefficient):** > 3.5

**Solubility in Water:** Negligible

**Viscosity:** 132 cSt (132 mm<sup>2</sup>/sec) at 40 °C | 17.8 cSt (17.8 mm<sup>2</sup>/sec) at 100°C

**Oxidizing Properties:** See Hazards Identification Section.

#### OTHER INFORMATION

**Freezing Point:** N/D

**Melting Point:** N/A

**Pour Point:** -40°C (-40°F)

### SECTION 10

### STABILITY AND REACTIVITY

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Excessive heat. High energy sources of ignition.

**INCOMPATIBLE MATERIALS:** Strong oxidisers

**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
<b>Inhalation</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
<b>Ingestion</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
<b>Skin</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Mildly irritating to skin with prolonged exposure. Based on assessment of the components.
<b>Eye</b>	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
<b>Sensitisation</b>	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
<b>Aspiration:</b> Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
<b>Germ Cell Mutagenicity:</b> No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
<b>Carcinogenicity:</b> No end point data for	Not expected to cause cancer. Based on assessment of the

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material.	components.
<b>Reproductive Toxicity:</b> No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
<b>Lactation:</b> No end point data for material.	Not expected to cause harm to breast-fed children.
<b>Specific Target Organ Toxicity (STOT)</b>	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

## TOXICITY FOR SUBSTANCES

NAME	ACUTE TOXICITY
N-PHENYL-1-NAPHTHYLAMINE	Oral Lethality: LD 50 1625 mg/kg (Rat)

## OTHER INFORMATION

For the product itself:

Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components, this formulation, or similar formulations.

### Contains:

Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitising in test animals and humans. N-phenyl-1-naphthylamine (PAN): A single oral overexposure may result in clinical signs/symptoms of cyanosis, headache, shallow respiration, dizziness, confusion, low blood pressure, convulsions, coma, or jaundice. Hematuria may occur due to bladder and kidney irritation, and anemia may develop later. Repeated exposure in laboratory animals caused liver and kidney damage and depressed bone marrow activity. Undiluted PAN is a skin sensitizer. Human testing of lubricants containing 1.0% PAN resulted in no reactions indicative of sensitisation. Phenyl-alpha-naphthylamine (PAN): Undiluted PAN is a skin sensitizer. Human testing with lubricants containing 1.0% PAN caused no reactions indicative of sensitization.

### IARC Classification:

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = IARC 1

2 = IARC 2A

3 = IARC 2B

## 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 harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

### MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.



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## 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. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

**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 (ADG):** Not Regulated for Land Transport

**SEA (IMDG):** Not Regulated for Sea Transport according to IMDG-Code

**Marine Pollutant:** No

**AIR (IATA):** Not Regulated for Air Transport

## SECTION 15 REGULATORY INFORMATION

This material is not considered hazardous according to Australia Model Work Health and Safety Regulations.

Product is not regulated according to Australian Dangerous Goods Code.

No Poison Schedule number allocated by the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act.

AS1940 COMBUSTIBLE CLASS: C2

### REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories : AIIC, IECSC, ISHL, KECI, TSCA

**Special Cases:**

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Inventory	Status
DSL	Restrictions Apply
ENCS	Restrictions Apply
PICCS	Exempt

<b>SECTION 16</b>	<b>OTHER INFORMATION</b>
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**KEY TO ABBREVIATIONS AND ACRONYMS:**

N/D = Not determined, N/A = Not applicable, STEL = Short-Term Exposure Limit, TWA = Time-Weighted Average

**KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):**

H302: Harmful if swallowed; Acute Tox Oral, Cat 4  
 H315: Causes skin irritation; Skin Corr/Irritation, Cat 2  
 H317: May cause allergic skin reaction; Skin Sensitisation, Cat 1  
 H319(2A): Causes serious eye irritation; Serious Eye Damage/Irr, Cat 2A  
 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

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**

Section 01: Company Mailing Address information was modified.

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**End of (M)SDS**