

# Material Safety Data Sheet

FOR INDUSTRIAL USE ONLY

Durite® AL-5395

## 1. Product and company identification

Product name : Durite® AL-5395  
 MSDS Number : 000000105810  
 Material uses : Abrasive Applications  
 Product type : Phenolic Resin  
 Validation date : 06/27/2014  
 Print date : 04/02/2015

Manufacturer, Importer,  
Supplier



*Shark Industries*  
 6700 Bleck Drive  
 Rockford, MN 55373

Contact person

Telephone For additional health and safety or regulatory information, call 1 888 443 9466.

Emergency telephone number

**For Emergency Medical Assistance**  
 Call Health & Safety Information Services, 1-866-303-6949

**For Emergency Transportation Information**  
 CHEMTREC US Domestic (800) 424-9300  
 CHEMTREC International (703) 527-3887  
 CANUTEC CA Domestic (613) 996-6666

*The MSDS is not to be used as a specification sheet. For Specific technical information on the product listed above, a sales specification sheet should be obtained from your Momentive representative.*

## 2. Hazards identification

### -Emergency overview

Physical state : Liquid  
 Color : Pink to reddish-brown  
 Odor : Phenolic.

Signal word : **WARNING!**  
 Hazard statements : **INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL**

- Precautionary measures** : WHICH CAN CAUSE CANCER.  
Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe vapor or mist. Use only with adequate ventilation. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Use personal protective equipment as required. Wash thoroughly after handling.
- OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Potential acute health effects**

- Inhalation** : Can cause central nervous system (CNS) depression. Slightly irritating to the respiratory system.
- Ingestion** : Can cause central nervous system (CNS) depression.
- Skin** : Slightly irritating to the skin.
- Eyes** : Severely irritating to eyes. Risk of serious damage to eyes.

**Potential chronic health effects**

- Chronic effects** : Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma, and that preexisting respiratory and skin disorders may be aggravated by exposure. Contains material that can cause target organ damage. Signs and symptoms of chronic phenol poisoning may include vomiting, difficulty in swallowing, diarrhea, lack of appetite, jaundice, fatigue, bleeding or easy bruising and sometimes pain and swelling in the upper right abdomen, changes in urine output or dark urine, pain upon urination or in the lower back, or general edema. Can also cause cardiac damage evidenced by shortness of breath and in severe cases cardiac arrest. Preexisting medical conditions of the heart, kidney, liver, lung, eyes and skin may be aggravated by exposure.
- Carcinogenicity** : Contains material which can cause cancer.  
Risk of cancer depends on duration and level of exposure.
- 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** : Contains material which causes damage to the following organs:  
blood  
kidneys  
lungs  
the nervous system  
liver  
heart  
spleen  
gastrointestinal tract  
cardiovascular system  
upper respiratory tract  
immune system  
skin  
eyes  
central nervous system (CNS)  
pancreas

**Over-exposure signs/symptoms**

- Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
respiratory tract irritation  
coughing  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:  
irritation  
redness
- Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.  
See toxicological information (Section 11)

**3. Composition/information on ingredients**

Name	CAS number	% by weight
Phenol	108-95-2	>=10 - <30
Formaldehyde	50-00-0	>=0.1 - <1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

**4. First aid measures**

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first aid personnel** : 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

## 5. Fire-fighting measures

**Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.

### Extinguishing media

**Suitable** : Use an extinguishing agent suitable for the surrounding fire.  
**Not suitable** : None known.

**Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon monoxide  
 carbon dioxide  
 aldehydes (including formaldehyde)  
 phenol  
 ammonia

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

## 6. Accidental release measures

**Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8 of SDS).

**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 for cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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 of SDS). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 of SDS for emergency contact information and section 13 of

SDS for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8 of SDS). 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. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : 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 of SDS) 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

### Occupational exposure limits

Ingredient	Exposure limits
Phenol	<p>ACGIH TLV (1996-05-18) Time Weighted Average (TWA) 19 mg/m<sup>3</sup> , 5 ppm</p> <p>OSHA PEL (1993-06-30) Time Weighted Average (TWA) 19 mg/m<sup>3</sup> , 5 ppm</p> <p>NIOSH REL (1994-06-01) Time Weighted Average (TWA) 19 mg/m<sup>3</sup> , 5 ppm</p> <p>NIOSH REL (1994-06-01) Ceiling 60 mg/m<sup>3</sup> , 15.6 ppm</p>
Formaldehyde	<p>ACGIH TLV (2000-03-01) Ceiling 0.37 mg/m<sup>3</sup> , 0.3 ppm</p> <p>OSHA PEL (1993-06-30) Time Weighted Average (TWA) , 0.75 ppm</p> <p>OSHA PEL (1993-06-30) Short Term Exposure Limit , 2 ppm</p> <p>NIOSH REL (1994-06-01) Time Weighted Average (TWA) , 0.016 ppm</p> <p>NIOSH REL (1994-06-01) Ceiling , 0.1 ppm</p>

**Consult local authorities for acceptable exposure limits.**

- Recommended monitoring procedures** : 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. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Engineering measures** : 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.
- 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**

- Respiratory** : 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.
- Hands** : 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Eyes** : 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 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** : 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.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**9. Physical and chemical properties****9.1 Information on basic physical and chemical properties****Appearance**

**Physical state** : Liquid

<b>Color</b>	:	Pink to reddish-brown
<b>Odor</b>	:	Phenolic.
<b>Odor threshold</b>	:	Not available
<b>pH</b>	:	Not available
<b>Melting point/freezing point</b>	:	Not applicable.
<b>Initial boiling point and boiling range</b>	:	185 °C
<b>Flash point</b>	:	Setaflash Closed Cup: 200 °F (ASTM D 3828)
<b>Evaporation rate</b>	:	Not applicable.
<b>Flammability (solid, gas)</b>	:	Not available
<b>Burning time</b>	:	Not available
<b>Burning rate</b>	:	Not available
<b>Upper/lower flammability or explosive limits</b>	:	<b>Lower:</b> Not applicable. <b>Upper:</b> Not applicable.
<b>Vapor pressure</b>	:	Not applicable.
<b>Vapor density</b>	:	Not applicable.
<b>Relative density</b>	:	1.193
<b>Solubility(ies)</b>	:	Not available
<b>Solubility in water</b>	:	Not applicable.
<b>Partition coefficient: n-octanol/water</b>	:	Not available
<b>Auto-ignition temperature</b>	:	Not available
<b>Decomposition temperature</b>	:	Not available
<b>Viscosity</b>	:	<b>Dynamic:</b> Not available <b>Kinematic:</b> Not available

## 9.2 Other information

No additional information.

## 10. Stability and reactivity

<b>Reactivity</b>	:	Stable under normal conditions.
<b>Chemical stability</b>	:	The product is stable.
<b>Conditions to avoid</b>	:	No specific data.
<b>Incompatible materials</b>	:	Reactive or incompatible with the following materials: oxidizing materials acids
<b>Hazardous decomposition products</b>	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Possibility of hazardous reactions</b>	:	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Other hazards</b>	:	During processing, vapors of phenol, formaldehyde, alcohols, glycols or other solvents may be released.

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Phenol				
	LD50 Oral	Rat	317 mg/kg	-
	LC50 Inhalation	Rat	0.316 mg/l	-
	LD50 Dermal	Rabbit	630 mg/kg	-
Formaldehyde				
	LD50 Oral	Rat	800 mg/kg	-
	LC50 Inhalation	Rat	0.578 mg/l 250 ppm	2 h
	LD50 Dermal	Rabbit	270 mg/kg	-
Durite® AL-5395				
	LD50 Oral	Rat	> 2,001 mg/kg	-
	LC50 Inhalation	Rat	> 2501 ppm	1 h
	LD50 Dermal	Rabbit	> 2,001 mg/kg	-

Conclusion/Summary : Not available

### Chronic toxicity

Conclusion/Summary : Not available

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Phenol	Skin - -	Rat	> 4		-
	eyes - Cornea opacity	Rabbit	> 3		-
Formaldehyde	Skin - Erythema/Eschar	Rabbit	2.5	20 hrs	-
	Skin - Edema	Rabbit	3	20 hrs	-
	eyes - Cornea opacity	Mouse	> 3		-

Conclusion/Summary

Skin : Not available  
 Eyes : Not available  
 Respiratory : Not available

### Sensitization

Conclusion/Summary

Skin : Not available  
 Respiratory : Not available

### Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Formaldehyde	-----	-		
Remarks:	The National Toxicology Program (NTP) classifies formaldehyde as "known to be a human carcinogen" with respect to nasopharyngeal cancer, sinonasal			



	<p>cancer and myeloid leukemia. The International Agency for Research on Cancer (IARC) classifies formaldehyde as "carcinogenic to humans". U.S. OSHA regulates formaldehyde as a potential human carcinogen. See the OSHA Formaldehyde Workplace Standard at 29 CFR 1920.1048 (the "OSHA Standard"). Safe handling and use instructions are provided in this MSDS and in the OSHA Standard. OSHA has identified 0.5 ppm, calculated as an eight-hour time-weighted average ("TWA") concentration, as the "Action Level". Please review and understand the guidance contained in this MSDS, and refer to the OSHA Standard for regulatory requirements that might be applicable to your operation and use. Many studies and other evaluations have been performed concerning formaldehyde's potential to cause cancer. To review some of these studies and for further information go to <a href="http://www.osha.gov/SLTC/formaldehyde">www.osha.gov/SLTC/formaldehyde</a>; <a href="http://monographs.iarc.fr">http://monographs.iarc.fr</a>; <a href="http://ntp-server.niehs.nih.gov">http://ntp-server.niehs.nih.gov</a>; <a href="http://epa.gov/iris/subst/0419.htm">http://epa.gov/iris/subst/0419.htm</a>; <a href="http://www.nap.edu/catalog.php?record_id=13142">http://www.nap.edu/catalog.php?record_id=13142</a> and other authoritative websites.</p>
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**Conclusion/Summary** : Not available

#### Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Phenol	A4	3				
Formaldehyde	A2	1		+	Proven	

#### Mutagenicity

**Conclusion/Summary** : Not available

#### Teratogenicity

**Conclusion/Summary** : Not available

#### Reproductive toxicity

**Conclusion/Summary** : Not available

## SECTION 12: Ecological information

### 12.1 Toxicity

**Ecotoxicity** : No known significant effects or critical hazards.

#### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Phenol	Acute LC50 8.9 mg/l Fresh water	Fish - Rainbow trout, donaldson trout	96 h
	Acute NOEC 0.077 mg/l Fresh water	Fish - Carp	60 d
	Acute EC50 3.1 mg/l Fresh water	Aquatic invertebrates. Water flea	48 h
	Acute NOEC 0.16 mg/l Fresh water	Aquatic invertebrates. Water flea	16 d

	Acute EC50 61.1 mg/l Fresh water	Aquatic plants - Microalgae	96 h
	Acute EC50 21 mg/l Fresh water	Micro-organism - Soil organisms	24 h
	Chronic NOEC 2.2 mg/l Fresh water	Aquatic invertebrates. Water flea	2 d
<b>Formaldehyde</b>			
	Acute LC50 6.7 mg/l -	Fish - Striped bass	96 h
	Acute LC50 6.9 mg/l -	Fish - Zebra danio	6 d
	Acute NOEC > 47.9 mg/l -	Fish - Medaka, high-eyes	28 d
	Acute EC50 5.8 mg/l Fresh water	Aquatic invertebrates. Water flea	2 d
	Acute EC50 4.9 mg/l Fresh water	Aquatic plants - Algae	72 h
	Acute EC50 4.3 mg/l Fresh water	Aquatic plants - Algae	48 h
	Acute EC50 19 mg/l -	Micro-organism - Soil organisms	3 h

**Conclusion/Summary** : Not available

## 12.2 Persistence and degradability

**Conclusion/Summary** : Not available

**Partition coefficient: n-octanol/water** : Not available

**Other adverse effects** : No known significant effects or critical hazards.

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. 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. 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 emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. 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 CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.**

## 14. Transport information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

**International transport regulations**

Regulatory information	UN/NA number	Proper shipping name	Classes/*PG	Reportable Quantity (RQ)
CFR	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Formaldehyde, Phenol)	Class 9 III	Formaldehyde, Phenol
TDG		Non-regulated		
IMO/IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Class 9 III	

\*PG : Packing group

**15.Regulatory information****United States**

<b>HCS Classification</b>	:	Irritating material Carcinogen Target organ effects
<b>U.S. Federal regulations</b>	:	<b>United States - TSCA 12(b) - Chemical export notification:</b> None required. <b>United States - TSCA 5(a)2 - Final significant new use rules:</b> Not listed <b>United States - TSCA 5(a)2 - Proposed significant new use rules:</b> Not listed <b>United States - TSCA 5(e) - Substances consent order:</b> Not listed <b>SARA 311/312 MSDS distribution - chemical inventory - hazard identification:</b> Immediate (acute) health hazard, Delayed (chronic) health hazard

**SARA 302/304****Composition/information on ingredients**

Name	EHS
Phenol	Yes.
Formaldehyde	Yes.

**SARA 313**

	Product name	CAS number	Concentration
<b>Form R - Reporting requirements</b>	Phenol	108-95-2	25 - 35
	Formaldehyde	50-00-0	0.2 - 1
<b>Supplier notification</b>	Phenol	108-95-2	25 - 35
	Formaldehyde	50-00-0	0.2 - 1

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

**California Prop. 65:** : WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Formaldehyde	Yes.	No.	40 µg/day	No.

**United States inventory (TSCA 8b)** : All components are listed or exempted.

Canada

**WHMIS (Canada)** : Class D-1A: Material causing immediate and serious toxic effects (Very toxic).  
 Class D-2A: Material causing other toxic effects (Very toxic).  
 Class D-2B: Material causing other toxic effects (Toxic).  
 Class E: Corrosive material

Canadian lists

**Canadian NPRI** : The following components are listed: Phenol

**CEPA Toxic substances** : The following components are listed: Formaldehyde

**Canada inventory** : All components are listed or exempted.

International regulations

**International lists** : **Australia inventory (AICS):** All components are listed or exempted.  
**Taiwan inventory (CSNN):** Not determined.  
**Japan inventory:** Not determined.  
**China inventory (IECSC):** All components are listed or exempted.  
**Korea inventory:** All components are listed or exempted.  
**New Zealand Inventory (NZIoC):** All components are listed or exempted.  
**Philippines inventory (PICCS):** Not determined.  
**United States inventory (TSCA 8b):** All components are listed or exempted.

**16. Other information**

**Label requirements** : INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

**Hazardous Material Information System III (U.S.A.) :**

Health	*	
Physical hazards		

**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 MSDSs 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.

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#### Notice to reader

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