



Conforms to HazCom 2012/United States

## SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION

**PRODUCT IDENTIFIER(S)/ TRADEMARK(S) USED ON THE LABEL:** ZDDP Oil Additive

**OTHER MEANS OF IDENTIFICATION:** EW# 12269Z

**NSF H-1 REGISTRATION NUMBER:** Not available.

#### RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

**MANUFACTURED FOR:** The Eastwood Company  
263 Shoemaker Road  
Pottstown, PA 19464  
(P): 1800-345-1178

**EMERGENCY PHONE:** 800-424-9300 (24HR)

**CHEMTREC PHONE:** 800-424-9300 (24HR)

### 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:** SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
AQUATIC HAZARD (LONG-TERM) – Category 2

#### GHS LABEL ELEMENTS

##### **HAZARD PICTOGRAMS:**



**SIGNAL WORD:** Warning

**HAZARD STATEMENTS:** Causes serious eye irritation.  
Causes skin irritation.  
Toxic to aquatic life with long lasting effects

#### PRECAUTIONARY STATEMENTS

**GENERAL:** Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**PREVENTION:** Wear protective gloves. Wear eye or face protection. Avoid release to the environment. Wash hands thoroughly after handling.

## SECTION 2: HAZARDS IDENTIFICATION (CONTINUED)

**RESPONSE:** Collect spillage. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**STORAGE:** Not applicable.

**DISPOSAL:** Dispose of contents and container in accordance with all local, regional, national and international regulations.

**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:** 10616

INGREDIENT NAME	%	CAS NUMBER
Zinc Alkyldithiophosphate	60 – 100	68649-42-3

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

**EYE CONTACT:** 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.

**INHALATION:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**SKIN CONTACT:** Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**INGESTION:** Wash out mouth with water. Remove dentures if any. 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 adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## SECTION 4: FIRST AID MEASURES (CONTINUED)

### MOST IMPORTANT SYMPTOMS/EFFECTS (ACUTE AND DELAYED)

#### POTENTIAL ACUTE HEALTH EFFECTS

<b>EYE CONTACT:</b>	Causes serious eye irritation.
<b>INHALATION:</b>	No known significant effects or critical hazards.
<b>SKIN CONTACT:</b>	Causes skin irritation.
<b>INGESTION:</b>	Irritating to mouth, throat and stomach.

#### OVER-EXPOSURE SIGNS/SYMPTOMS

<b>EYE CONTACT:</b>	Adverse symptoms may include the following: Pain or irritation Watering Redness
<b>INHALATION:</b>	No known significant effects or critical hazards.
<b>SKIN CONTACT:</b>	Adverse symptoms may include the following: Irritation Redness
<b>INGESTION:</b>	No known significant effects or critical hazards.

### INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY

<b>NOTES TO PHYSICIAN:</b>	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>SPECIFIC TREATMENTS:</b>	No specific treatment.
<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.

See toxicological information (Section 11)

## SECTION 5: FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

**SUITABLE EXTINGUISHING MEDIA:** Carbon dioxide, dry chemical, foam and water fog or spray.

**UNSUITABLE EXTINGUISHING MEDIA:** None known.

**SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:** This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**HAZARDOUS THERMAL DECOMPOSITION PRODUCTS:** No specific data.

**SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS:** No special measures are required.

**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:** No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

## SECTION 6: ACCIDENTAL RELEASE MEASURES (CONTINUED)

**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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### **METHODS AND MATERIALS FOR CONTAINMENT AND 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). 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 7: HANDLING AND STORAGE

### **PRECAUTIONS FOR SAFE HANDLING**

**PROTECTIVE MEASURES:** Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. 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.

**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. 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 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 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:** None.

**APPROPRIATE ENGINEERING CONTROLS:** Good general 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.

### **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. 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.

**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.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

### 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. 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.

**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, 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

<b>PHYSICAL STATE:</b>	Liquid.
<b>COLOR:</b>	Brown.
<b>ODOR:</b>	Mild.
<b>ODOR THRESHOLD:</b>	Not available.
<b>pH:</b>	Not available.
<b>MELTING POINT:</b>	Not available.
<b>BOILING POINT:</b>	Not available.
<b>FLASH POINT:</b>	Open Cup: 176.67 °C (350 °F) [Cleveland.]
<b>BURNING TIME:</b>	Not applicable.
<b>BURNING RATE:</b>	Not applicable.
<b>EVAPORATION RATE:</b>	Not available.
<b>FLAMMABILITY (SOLID, GAS):</b>	Not available.
<b>LOWER AND UPPER EXPLOSIVE (FLAMMABLE) LIMITS:</b>	Not available.
<b>VAPOR PRESSURE:</b>	Not available.
<b>VAPOR DENSITY:</b>	Not available.
<b>RELATIVE DENSITY:</b>	1.07 g/ml
<b>SOLUBILITY:</b>	Insoluble in the following materials: Cold water Hot water
<b>PARTITION COEFFICIENT: N-OCTANOL/WATER:</b>	Not available.
<b>AUTO-IGNITION TEMPERATURE:</b>	Not available.
<b>DECOMPOSITION TEMPERATURE:</b>	Not available.
<b>SADT:</b>	Not available.
<b>VISCOSITY:</b>	Not available.

## SECTION 10: STABILITY AND REACTIVITY

<b>REACTIVITY:</b>	No specific test data related to reactivity available for this product or its ingredients.
<b>CHEMICAL STABILITY:</b>	The product is stable.
<b>POSSIBILITY OF HAZARDOUS REACTIONS:</b>	Under normal conditions of storage and use, hazardous reactions will not occur.

## SECTION 10: STABILITY AND REACTIVITY (CONTINUED)

<b>CONDITIONS TO AVOID:</b>	Do not heat above flash point.
<b>INCOMPATIBLE MATERIALS:</b>	Reactive or incompatible with the following materials: Oxidizing materials
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	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:**

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	SCORE	EXPOSURE	OBSERVATION
Zinc Alkyldithiophosphate	Eyes – Irritant	Rabbit	---	---	---

**SENSITIZATION:** There is no data available.

**MUTAGENICITY:** There is no data available.

**CARCINOGENICITY:** There is no data available.

**REPRODUCTIVE TOXICITY:** There is no data available.

**TERATOGENICITY:** 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:** Dermal contact. Ingestion.

### POTENTIAL ACUTE HEALTH EFFECTS

<b>EYE CONTACT:</b>	Causes serious eye irritation.
<b>INHALATION:</b>	No known significant effects or critical hazards.
<b>SKIN CONTACT:</b>	Causes skin irritation.
<b>INGESTION:</b>	Irritating to mouth, throat and stomach.

### SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL, AND TOXICOLOGICAL CHARACTERISTICS

<b>EYE CONTACT:</b>	Adverse symptoms may include the following: Pain or irritation Watering Redness
<b>INHALATION:</b>	No known significant effects or critical hazards.
<b>SKIN CONTACT:</b>	Adverse symptoms may include the following: Irritation Redness
<b>INGESTION:</b>	No known significant effects or critical hazards.

### DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE

#### SHORT-TERM EXPOSURE:

<b>POTENTIAL IMMEDIATE EFFECTS:</b>	No known significant effects or critical hazards.
<b>POTENTIAL DELAYED EFFECTS:</b>	No known significant effects or critical hazards.

#### LONG-TERM EXPOSURE:

<b>POTENTIAL IMMEDIATE EFFECTS:</b>	No known significant effects or critical hazards.
<b>POTENTIAL DELAYED EFFECTS:</b>	No known significant effects or critical hazards.

#### POTENTIAL CHRONIC HEALTH EFFECTS

<b>GENERAL:</b>	No known significant effects or critical hazards.
<b>CARCINOGENICITY:</b>	No known significant effects or critical hazards.
<b>MUTAGENICITY:</b>	No known significant effects or critical hazards.

**SECTION 11: TOXICOLOGICAL INFORMATION (CONTINUED)**

**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.

**NUMERICAL MEASURES OF TOXICITY**

**ACUTE TOXICITY ESTIMATES** There is no data available.

**SECTION 12: ECOLOGICAL INFORMATION****TOXICITY**

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	EXPOSURE
Zinc Alkyldithiophosphate	Acute EC50 1 to 5 mg/L	Aquatic plants – Lemna minor	4 days
	Acute EC50 1 to 1.5 mg/L	Daphnia – Daphnia longispina – Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Chronic LC50 1 to 5 mg/L	Fish – Oreochromis niloticus – Juvenile (Fledgling, Hatchling, Weanling)	6 weeks

**PERSISTENCE AND DEGRADABILITY:** There is no data available.

**BIOACCUMULATIVE POTENTIAL:** There is no data available.

**MOBILITY IN SOIL:**

**SOIL/WATER PARTITION COEFFICIENT ( $K_{oc}$ ):** Not 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: TRANSPORT INFORMATION**

	DOT CLASSIFICATION	IMDG	IATA
<b>UN NUMBER:</b>	Not regulated.	Not regulated.	Not regulated.
<b>UN PROPER SHIPPING NAME:</b>	---	---	---
<b>TRANSPORT HAZARD CLASS(ES):</b>	---	---	---
<b>PACKING GROUP:</b>	---	---	---
<b>ENVIRONMENTAL HAZARDS:</b>	---	---	---
<b>ADDITIONAL INFORMATION:</b>	---	---	---

## SECTION 14: TRANSPORT INFORMATION (CONTINUED)

**AERG:** Not applicable.

**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) PAIR:** Zinc Alkyldithiophosphate

**TSCA 8(a) CDR EXEMPT/PARTIAL EXEMPTION:** Not determined.

**UNITED STATES INVENTORY (TSCA 8b):** All components are listed or exempted.

**CLEAN WATER ACT (CWA) 307:** Zinc Alkyldithiophosphate

**CLEAN AIR ACT SECTION 112(b) HAZARDOUS AIR POLLUTANTS (HAPs):** Not 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):** Not listed.

### SARA 302/304

**COMPOSITION/INFORMATION ON INGREDIENTS:** No products were found

**SARA 304 RQ:** Not applicable.

### SARA 311/312

**CLASSIFICATION:** Immediate (acute) health hazard.

**COMPOSITION/INFORMATION ON INGREDIENTS:**

NAME	%	FIRE HAZARD	SUDDEN RELEASE OF PRESSURE	REACTIVE	IMMEDIATE (ACUTE) HEALTH HAZARD	DELAYED (CHRONIC) HEALTH HAZARD
Zinc Alkyldithiophosphate	60 – 100	No.	No.	No.	Yes.	No.

### SARA 313

	PRODUCT NAME:	CAS NUMBER:	%
<b>FORM R – REPORTING REQUIREMENTS:</b>	Zinc Alkyldithiophosphate	68649-42-3	60 – 100
<b>SUPPLIER NOTIFICATION:</b>	Zinc Alkyldithiophosphate	68649-42-3	60 – 100

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:  
Distillates (petroleum), hydrotreated light naphthenic

**NEW YORK:** None of the components are listed.

**NEW JERSEY:** The following components are listed:  
Zinc Alkyldithiophosphate  
Distillates (petroleum), hydrotreated light naphthenic  
Distillates (petroleum), hydrotreated heavy paraffinic

**PENNSYLVANIA:** The following components are listed:  
Zinc Alkyldithiophosphate

**CALIFORNIA PROP. 65** No products were found.



## SECTION 15: REGULATORY INFORMATION (CONTINUED)

### INTERNATIONAL REGULATIONS

#### INTERNATIONAL LISTS:

**Australia inventory (AICS):** All components listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

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

**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.

**Philippines inventory (PICCS):** All components are listed or exempted.

**CHEMICAL WEAPONS CONVENTION LIST SCHEDULE I CHEMICALS:** Not listed.

**CHEMICAL WEAPONS CONVENTION LIST SCHEDULE II CHEMICALS:** Not listed.

**CHEMICAL WEAPONS CONVENTION LIST SCHEDULE III CHEMICALS:** Not listed.

Petroleum components contained in this product meet the IP 346 criteria of less than 3 percent DMSO - extractable components

## SECTION 16: OTHER INFORMATION

### HAZARDOUS MATERIAL INFORMATION SYSTEM (U.S.A.)

**Health:** 0 \*

**Flammability:** 1

**Physical Hazards:** 0

### NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A.)

**Health:** 0

**Flammability:** 1

**Instability:** 0

Caution: HMIS® and NFPA ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks.

The customer is responsible for determining the PPE code for this material.

### HISTORY

**DATE ISSUE (MM/DD/YYYY):** 01/01/2014

**VERSION:** 1

**REVISED SECTION(S):** Not applicable.

### KEY TO ABBREVIATIONS:

ATE = Acute Toxicity Estimate

BCF = Bio-concentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Code

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 THE 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.