



Be Right™

# SAFETY DATA SHEET

Issue Date 12-Jun-2019

Revision Date 26-Jan-2024

Version 2.7

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## 1. IDENTIFICATION

### Product identifier

**Product Name** Chlorophosphonazo Indicator Solution Pillows

### Other means of identification

**Product Code(s)** 2589599

**Safety data sheet number** M00491

### Recommended use of the chemical and restrictions on use

**Recommended Use** Laboratory reagent.

**Uses advised against** Consumer use.

**Restrictions on use** For Laboratory Use Only.

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

#### **Emergency telephone number**

+1(303) 623-5716 - 24 Hour Service

## 2. HAZARDS IDENTIFICATION

### Classification

#### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### **Signal word**

Danger



**Hazard statements**

- H302 - Harmful if swallowed
- H312 - Harmful in contact with skin
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H319 - Causes serious eye irritation
- H370 - Causes damage to organs
- H372 - Causes damage to organs through prolonged or repeated exposure

**Precautionary statements**

- P270 - Do not eat, drink or smoke when using this product
- P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- P330 - Rinse mouth
- P501 - Dispose of contents/ container to an approved waste disposal plant
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell
- P363 - Wash contaminated clothing before reuse
- P362 - Take off contaminated clothing and wash before reuse
- P280 - Wear protective gloves, protective clothing, eye protection, and face protection
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P337 + P313 - If eye irritation persists: Get medical attention
- P272 - Contaminated work clothing should not be allowed out of the workplace
- P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor
- P405 - Store locked up

**Other Hazards Known**

None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

**Chemical Family**

Mixture.

**Chemical nature**

Aqueous alkaline solution.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Ethanesulfonic acid, 2-[bis(2-hydroxyethyl)amino]-	10191-18-1	1 - 5%	-
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate	10424-65-4	1 - 5%	-

**4. FIRST AID MEASURES**

**Description of first aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.
<b>Skin contact</b>	May cause an allergic skin reaction. If symptoms persist, call a physician. Wash off immediately with soap and plenty of water for at least 15 minutes.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Itching. Rashes. Hives. Burning sensation.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** May cause sensitization in susceptible persons. Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable Extinguishing Media</b>	Caution: Use of water spray when fighting fire may be inefficient.
<b>Specific hazards arising from the chemical</b>	Product is or contains a sensitizer. May cause sensitization by skin contact.
<b>Hazardous combustion products</b>	This material will not burn.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. ACCIDENTAL RELEASE MEASURES**

**U.S. Notice** Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

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

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

**Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

**Flammability class** Not applicable

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hand Protection** Wear suitable gloves. Impervious gloves. Barrier creams may help to protect the exposed areas of skin. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016.

**Eye/face protection** Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear safety glasses with side-shields.

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**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

**General Hygiene Considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

**Thermal hazards** None under normal processing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

**Physical state** Liquid  
**Appearance** aqueous solution  
**Color** dark violet  
**Odor** Odorless  
**Odor threshold** Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Molecular weight</b>	Not applicable	
<b>pH</b>	7.26	@ 20 °C
<b>Melting point / freezing point</b>	~ -1 °C / 30.2 °F	
<b>Initial boiling point and boiling range</b>	98 °C / 208.4 °F	
<b>Evaporation rate</b>	1.03 (water = 1)	
<b>Vapor pressure</b>	23.627 mm Hg / 3.15 kPa at 25 °C / 77 °F	
<b>Relative vapor density</b>	0.62	
<b>Specific gravity - VALUE 1</b>	1.06	
<b>Partition coefficient</b>	No data available	
<b>Soil Organic Carbon-Water Partition Coefficient</b>	No data available	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>Dynamic viscosity</b>	~ 1.06 cP (mPa s) at 20 °C / 68 °F	
<b>Kinematic viscosity</b>	~ 1 cSt (mm <sup>2</sup> /s) at 20 °C / 68 °F	

### Solubility(ies)

#### Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

#### Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

### Other information

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#### Metal Corrosivity

**Steel Corrosion Rate** No data available  
**Aluminum Corrosion Rate** No data available

#### Volatile Organic Compounds (VOC) Content

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Ethanesulfonic acid, 2-[bis(2-hydroxyethyl)amino]-	10191-18-1	No data available	-
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate	10424-65-4	No data available	-

#### Explosive properties

**Upper explosion limit** Not applicable  
**Lower explosion limit** Not applicable

#### Flammable properties

**Flash point** No data available

#### Flammability Limit in Air

**Upper flammability limit:** No data available  
**Lower flammability limit:** No data available

#### Oxidizing properties

No data available.

#### Bulk density

Not applicable

## 10. STABILITY AND REACTIVITY

#### Reactivity

Not applicable.

#### Chemical stability

Stable under normal conditions.

#### Explosion data

**Sensitivity to Mechanical Impact** None.  
**Sensitivity to Static Discharge** None.

#### Possibility of hazardous reactions

None under normal processing.

#### Hazardous polymerization

Hazardous polymerization does not occur.

#### Conditions to avoid

None known based on information supplied.

#### Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

**Hazardous decomposition products**

Carbon dioxide. Carbon monoxide. Nitrogen oxides. Sulfur oxides. Ammonia.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	Irritating to eyes. Causes serious eye irritation.
<b>Skin contact</b>	May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Causes skin irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.

**Symptoms** Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

**Acute toxicity**

Harmful if swallowed  
Harmful in contact with skin

**Mixture**

No data available.

**Ingredient Acute Toxicity Data**

Test data reported below.

**Oral Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate (1 - 5%) CAS#: 10424-65-4	Rat LD <sub>50</sub>	34 mg/kg	None reported	None reported	NITE

**Dermal Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate (1 - 5%) CAS#: 10424-65-4	Rat LD <sub>50</sub>	25 mg/kg	None reported	None reported	ECHA

**Unknown Acute Toxicity**

7E-06% of the mixture consists of ingredient(s) of unknown toxicity.

**Acute Toxicity Estimations (ATE)**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	1,824.80 mg/kg
ATEmix (dermal)	1,341.80 mg/kg
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

**Skin corrosion/irritation**

Classification based on data available for ingredients. Irritating to skin.

**Mixture**

No data available.

**Ingredient Skin Corrosion/Irritation Data**

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate (1 - 5%) CAS#: 10424-65-4	Standard Draize Test	Guinea pig	25 mg	24 hours	Corrosive to skin	NITE

**Serious eye damage/irritation**

Classification based on data available for ingredients. Irritating to eyes.

**Mixture**

No data available.

**Ingredient Eye Damage/Eye Irritation Data**

No data available.

**Respiratory or skin sensitization**

May cause sensitization by skin contact.

**Mixture**

No data available.

**Ingredient Sensitization Data**

No data available.

**STOT - single exposure**

Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed. Causes damage to organs in contact with skin.

**Mixture**

No data available.

**Ingredient Specific Target Organ Toxicity Single Exposure Data**

Test data reported below.

**Oral Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Methanaminium, N,N,N-trimethyl-, hydroxide,	TD <sub>Lo</sub> Rat	23 mg/kg	None reported	<b>Behavioral</b> Clonic convulsions Salivation	NITE



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pentahydrate (1 - 5%) CAS#: 10424-65-4				Ataxia	
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**STOT - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

**Mixture**

No data available.

**Ingredient Specific Target Organ Toxicity Repeat Exposure Data**

No data available.

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Mixture**

No data available.

**Ingredient Carcinogenicity Data**

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Ethanesulfonic acid, 2-[bis(2-hydroxyethyl)amin o]-	10191-18-1	-	-	-	-
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate	10424-65-4	-	-	-	-

**Legend**

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	Does not apply
<b>IARC (International Agency for Research on Cancer)</b>	Does not apply
<b>NTP (National Toxicology Program)</b>	Does not apply
<b>OSHA</b>	Does not apply

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

**Mixture invitro Data**

No data available.

**Substance invitro Data**

No data available.

**Mixture invivo Data**

No data available.

**Substance invivo Data**

No data available.

**Reproductive toxicity**

Based on available data, the classification criteria are not met.

**Mixture**

No data available.

**Ingredient Reproductive Toxicity Data**

No data available.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Based on available data, the classification criteria are not met.

**Unknown aquatic toxicity**

1E-05% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

**Mixture**

**Aquatic Acute Toxicity**

No data available.

**Aquatic Chronic Toxicity**

No data available.

**Substance**

**Aquatic Acute Toxicity**

No data available.

**Aquatic Chronic Toxicity**

No data available.

**Persistence and degradability**

**Mixture**

No data available.

**Bioaccumulation**

There is no data for this product

**Mixture**

No data available.

**Partition coefficient**

No data available

**Mobility**

**Soil Organic Carbon-Water Partition Coefficient**

No data available

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste from residues/unused products**

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging**

Do not reuse empty containers.

**US EPA Waste Number**

Not applicable

**Special instructions for disposal**

If permitted by regulation. Dilute to 3 to 5 times the volume with cold water. Open cold water tap completely, slowly pour the material to the drain. Allow cold water to run for 5 minutes to

completely flush the system. Dispose of material in an E.P.A. approved hazardous waste facility.

#### 14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated

#### Additional information

#### 15. REGULATORY INFORMATION

##### National Inventories

TSCA	Complies
DSL/NDSL	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

##### International Inventories

EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Does not comply
TCSI	Complies
AICS	Complies
NZIoC	Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
ENCS - Japan Existing and New Chemical Substances  
IECSC - China Inventory of Existing Chemical Substances  
KECL - Korean Existing and Evaluated Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
TCSI - Taiwan Chemical Substances Inventory  
AICS - Australian Inventory of Chemical Substances  
NZIoC - New Zealand Inventory of Chemicals

##### US Federal Regulations

###### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

###### SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

###### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

**IMERC:** Not applicable

#### **U.S. State Right-to-Know Regulations**

This product may contain substances regulated by state right-to-know regulations.

#### **U.S. EPA Label Information**

## **16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

#### **Special Comments**

None

#### **Additional information**

#### **Global Automotive Declarable Substance List (GADSL)**

Not applicable

#### **NFPA and HMIS Classifications**

<b>NFPA</b>	<b>Health hazards</b> - 3	<b>Flammability</b> - 0	<b>Instability</b> - 0	<b>Physical and chemical properties</b> -
<b>HMIS</b>	<b>Health hazards</b> - 3 - *	<b>Flammability</b> - 0	<b>Physical hazards</b> - 0	<b>Personal protection</b> - X - I

#### **Key or legend to abbreviations and acronyms used in the safety data sheet**

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
CDC	CDC (Center for Disease Control)
CEPA	CEPA (Canadian Environmental Protection Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)
ECHA	ECHA (The European Chemicals Agency)
EEA	EEA (European Environment Agency)
EPA	EPA (Environmental Protection Agency)
ERMA	ERMA (New Zealand's Environmental Risk Management Authority)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
FDA	FDA (Food & Drug Administration)
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)
INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)
IUCLID	IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)

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NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
NDF	no data
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEEN	PEEN (Pan European Ecological Network)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

**Prepared By** Hach Product Compliance Department

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**Revision Note** None

**Disclaimer**

**USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.**

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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**End of Safety Data Sheet**