

SAFETY DATA SHEET

# SODIUM METASILICATE ANHYDROUS

SDS Revision Date: 6-15-2015

# **1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Company Identification:	Global Chemical Resources 1925 Nebraska Avenue Toledo, OH 43607 419-242-1004
24 Hour Emergency Telephone Number:	CHEMTREC 1-800-424-9300
Product Identifier:	SODIUM METASILICATE ANHYDROUS
Synonyms:	Anhydrous Metasilicate, Sodium Metasilicate Anhydrous, Anhydrous Sodium Metasilicate
Product Use:	Cleaner, detergents / soaps, drilling fluids
Uses Advised Against:	None identified.

# 2. HAZARDS IDENTIFICATION

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**OSHA REGULATORY STATUS:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### **EMERGENCY OVERVIEW:**

Color:	White to faintly colored
Physical state	Solid
Appearance:	Granular, Powder
Odor:	Odorless

Signal Word: DANGER

**MAJOR HEALTH HAZARDS:** CORROSIVE. CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. HARMFUL IF SWALLOWED. MAY CAUSE RESPIRATORY TRACT IRRITATION.

**PHYSICAL HAZARDS:** May be corrosive to metals when wet. Spilled solutions of sodium metasilicate may pose a slipping hazard.

**PRECAUTIONARY STATEMENTS:** Keep only in original container. Wear protective gloves, protective clothing, eye, and face protection. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Store in corrosive resistant and NON-ALUMINUM container with a resistant inner liner (NOTE: flammable hydrogen gas may be generated if aluminum container and/or aluminum fittings are used with dissolved material).

**ADDITIONAL HAZARD INFORMATION:** Toxicity may be delayed, and may not be readily visible. Significant exposures must be referred for medical attention immediately. There is no specific antidote. This material is not a crystalline silica, and it does not cause pulmonary silicosis.

### **GHS CLASSIFICATION:**

GHS: PHYSICAL HAZARDS:	Corrosive to Metals
GHS: CONTACT HAZARD - SKIN:	Category 1B - Causes severe skin burns and eye damage
GHS: CONTACT HAZARD - EYE:	Category 1 - Causes serious eye damage
GHS: ACUTE TOXICITY -	No data available Not classified
INHALATION:	
GHS: ACUTE TOXICITY - ORAL:	Category 4 - Harmful if swallowed
GHS: ACUTE TOXICITY -	No data available Not classified
DERMAL:	
GHS: TARGET ORGAN	Category 3 - May cause respiratory tract irritation
TOXICITY (SINGLE EXPOSURE):	
GHS: CARCINOGENICITY:	Not classified as a carcinogen per GHS criteria. This product is not classified as a carcinogen by NTP, IARC or OSHA.

### UNKNOWN ACUTE TOXICITY:

Not applicable. This product was tested as a whole. This information only pertains to untested mixtures.

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GHS SYMBOL: Corrosive, Exclamation mark



GHS SIGNAL WORD: DANGER

### **GHS HAZARD STATEMENTS:**

GHS - Physical Hazard Statement(s) May be corrosive to metals

### GHS - Health Hazard Statement(s)

Causes severe skin burns and eye damage Causes serious eye damage Harmful if swallowed May cause respiratory irritation

### GHS - Precautionary Statement(s) - Prevention

Do not breathe dusts or mists Wear protective gloves, protective clothing, eye, and face protection Wash thoroughly after handling Do not eat, drink or smoke when using this product Keep only in original container Use only outdoors or in a well-ventilated area

### GHS - Precautionary Statement(s) - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell IF SWALLOWED: Rinse mouth. Do NOT induce vomiting Call a POISON CENTER or doctor/physician if you feel unwell Specific treatment (see First Aid information on product label and/or Section 4 of the SDS) Absorb spillage to prevent material damage

### GHS - Precautionary Statement(s) - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed Store in corrosive resistant container with a resistant inner liner (NOTE: flammable hydrogen gas may be generated if aluminum container and/or aluminum fittings are used with dissolved material)

### GHS - Precautionary Statement(s) - Disposal

Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations

Hazards Not Otherwise Classified (HNOC) None identified

See Section 11: TOXICOLOGICAL INFORMATION

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Anhydrous Metasilicate, Sodium Metasilicate Anhydrous, Anhydrous Sodium Metasilicate

Component	Percent [%]	CAS Number
Sodium Metasilicate	95 - 99	6834-92-0
Water	0 - 2	7732-18-5
Sodium Carbonate	0 - 3	497-19-8

# 4. FIRST AID MEASURES

**INHALATION:** If inhalation of this material occurs and adverse effects result, remove to uncontaminated area. Evaluate ABC's (is Airway constricted, is Breathing occurring, and is blood Circulating) and treat symptomatically. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN CONTACT:** Brush off excess material. Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry and shoes. Wash contaminated areas with large amounts of water. GET MEDICAL ATTENTION IMMEDIATELY. Thoroughly clean and dry contaminated clothing and shoes before reuse. Discard contaminated leather goods.

**EYE CONTACT:** Immediately flush contaminated eyes with a directed stream of water for as long as possible. Remove contact lenses, if present, then continue rinsing. Continued irrigation may be necessary to ensure neutral pH. Water or saline may be used. GET MEDICAL ATTENTION IMMEDIATELY.

**INGESTION:** If swallowed, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. Never give anything by mouth to an unconscious or convulsive person. GET MEDICAL ATTENTION IMMEDIATELY.

**Most Important Symptoms/Effects (Acute and Delayed)** Solutions of sodium metasilicate are alkaline. Depending on the concentration, duration, and nature of the exposure, exposure to alkaline solutions may result in irritation to possible burns to any contacted tissue. This material is not a crystalline silica, and it does not cause pulmonary silicosis.

### Acute Symptoms/Effects: Listed below.

**Inhalation (Breathing):** Respiratory System Effects: Inhalation exposure may cause irritation, redness of upper and lower airways, coughing, laryngeospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema. Severe and permanent scarring may occur. The pulmonary edema may develop several hours after a severe acute exposure.

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**Skin:** Skin Corrosion. Skin exposure may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns.

**Eye:** Serious Eye Damage: Exposure to eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye. The full extent of the injury may not be immediately apparent.

**Ingestion (Swallowing):** Gastrointestinal System Effects: Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur.

### **Delayed Symptoms/Effects:**

- Repeated and prolonged skin contact may cause a dermatitis

Interaction with Other Chemicals Which Enhance Toxicity: None known.

**Medical Conditions Aggravated by Exposure:** May aggravate preexisting conditions such as:. Eye disorders that decrease tear production or have reduced integrity. Skin disorders that compromise the integrity of the skin such as: psoriasis, rashes, eczema, skin infections. Pulmonary disorders that compromise the integrity of the lungs such as asthma.

**Protection of First-Aiders:** Avoid contact with skin and eyes. Do not breathe dust. Use personal protective equipment. Refer to Section 8 for specific personal protective equipment recommendations. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission.

**Notes to Physician:** Treat as a corrosive substance. Treat symptoms with supportive care. There is no specific antidote. The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage. It may take 48-72 hours to assess the extent of an ocular burn. Probable mucosal damage may contraindicate the use of gastric lavage.

# **5. FIRE-FIGHTING MEASURES**

Fire Hazard: Negligible fire hazard.

Extinguishing Media: Use media appropriate for surrounding fire.

**Fire Fighting:** Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Sensitivity to Mechanical Impact:	Not sensitive.
Sensitivity to Static Discharge:	Notsensitive.
Lower Flammability Level (air):	Notflammable
Upper Flammability Level (air):	Not flammable
Flash point:	Not flammable
Auto-ignition Temperature:	No information available

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### **GHS: PHYSICAL HAZARDS:**

- Corrosive to Metals

# 6. ACCIDENTAL RELEASE MEASURES

#### **Personal Precautions:**

Do not get in eyes, on skin or on clothing. Avoid breathing dust. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Wet material may pose a slipping hazard. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls / Personal Protection, of the SDS.

#### Methods and Materials for Containment and Cleaning Up:

Shovel dry material into suitable container. Vacuum any remaining material into a suitable container. Flush spill area with water, if appropriate. Liquid material may be removed with a vacuum truck. Wet material is slippery under foot.

#### **Environmental Precautions:**

This material is alkaline and may raise the pH of surface waters with low buffering capacity. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

### 7. HANDLING AND STORAGE

### **Precautions for Safe Handling:**

Do not get in eyes, on skin, or on clothing. Avoid creation of dust. Avoid breathing dust. Do not eat, drink or smoke in areas where this material is used. Wash thoroughly after handling. Wet material may pose a slipping hazard. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS.

#### Safe Storage Conditions:

Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store dissolved material in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet).

#### Incompatibilities/ Materials to Avoid:

Can generate heat when mixed with acids. When wet avoid prolonged contact with alkali sensitive metals such as: aluminum, brass, bronze, copper, lead, tin, zinc because flammable hydrogen gas can be generated.

### **GHS: PHYSICAL HAZARDS:**

- Corrosive to Metals

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Regulatory Exposure Limit(s):** None. This product does not contain any components that have non-regulatory occupational exposure limits (OEL's).

# OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit

**NON-REGULATORY EXPOSURE LIMIT(S):** Listed below for the product components that have non-regulatory occupational exposure limits (OEL's).

OXY REL	2 mg/m <sup>3</sup> Recommended Time Weighted Average - 8 hour (Internal Occupation
8 hr TWA	Exposure Limit)

# - The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).

- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

**ENGINEERING CONTROLS:** Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

### PERSONAL PROTECTIVE EQUIPMENT:

**Eye Protection:** Wear safety glasses with side-shields. If eye contact is likely, wear chemical resistant safety goggles. Wear chemical safety goggles and/or a face-shield to protect against skin and eye contact when appropriate. When wet mixing, wear safety goggles with a face-shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:** Wear protective clothing to minimize skin contact. When potential for contact with wet material exists, wear TychemÒ or similar chemical protective suit. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as TyvekÒ.

**Hand Protection:** Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

Protective Material Types: Butyl rubber, Natural rubber, Neoprene, Nitrile, TychemÒ, TyvekÒ

**Respiratory Protection:** A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state Appearance: Solid Granular, Powder

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Color: Odor: Odor Threshold [ppm]: Molecular Formula: Decomposition Temperature: Freezing Point/Range: Melting Point/Range: Vapor Pressure: Vapor Density (air=1): Relative Density/Specific Gravity	White to faintly colored Odorless No data available. Na2SiO3 No information available Not applicable to solids. 1,990 °F Not applicable Not applicable Not applicable Not applicable
(water=1):	$54  70 \ \text{lbc/ft}^2 \ (\text{looso})$
Water Solubility:	16% @ 20 °C
pH:	12.7 (1% aqueous solution)
Volatility:	Not applicable
Evaporation Rate (ether=1):	Not applicable
Partition Coefficient	No data available
(n-octanol/water): Flash point: Flammability (solid, gas):	Not flammable
Lower Flammability (solid, gas): Lower Flammability Level (air): Upper Flammability Level (air): Auto-ignition Temperature: Viscosity:	Not flammable Not flammable No information available Not applicable
-	

# **10. STABILITY AND REACTIVITY**

Reactivity: Not reactive under normal temperatures and pressures.

Chemical Stability: Stable at normal temperatures and pressures.

### **Possibility of Hazardous Reactions:**

Contact with acids will cause evolution of heat. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces.

### Conditions to Avoid:

(e.g., static discharge, shock, or vibration) -. None known.

### Incompatibilities/ Materials to Avoid:

Can generate heat when mixed with acids. When wet avoid prolonged contact with alkali sensitive metals such as: aluminum, brass, bronze, copper, lead, tin, zinc because flammable hydrogen gas can be generated.

Hazardous Decomposition Products: None known

Hazardous Polymerization: Will not occur.

# **11. TOXICOLOGICAL INFORMATION**

### TOXICITY DATA:

#### PRODUCT TOXICITY DATA: S - 25, SODIUM METASILICATE ANHYDROUS

<b>Note:</b> The test material for the toxicological studies was sodium metasilicate.			
LD50 Oral:	LD50 Dermal:	LC50 Inhalation:	
1280 mg/kg (Rat)	No data available	No data available	

#### COMPONENT TOXICITY DATA:

Note: The component toxicity data is populated by the LOLI database and may differ from the product toxicity datagiven.

Component	LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
Sodium Metasilicate 6834-92-0	600 mg/kg (Rat)		
Sodium Carbonate 497-19-8	4090 mg/kg (Rat)	2210 mg/kg (Mouse)	2300 mg/m³ (2 hr-Rat)

### POTENTIAL HEALTH EFFECTS:

Eye contact:	Causes serious eye damage. May cause severe irritation, pain and corneal burns (possibly leading to blindness). The full extent of the injury may not be immediately apparent.
Skin contact:	Causes severe skin burns. May cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns.
Inhalation:	May cause irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. Upon contact with moist mucous membranes, sodium metasilicate is highly alkaline and may cause corrosive damage.
Ingestion:	Harmful if swallowed. May cause immediate pain and severe burns of the upper and lower gastrointestinal tract with vomiting, nausea, and diarrhea.
Chronic Effects:	Repeated or prolonged skin contact may result in dermatitis.

### SIGNS AND SYMPTOMS OF EXPOSURE:

Solutions of sodium metasilicate are alkaline. Exposure to alkaline solutions may result in irritation to any contacted tissue, including possible burns, depending on the concentration, duration, and nature of the exposure. This material is not a crystalline silica, and it does not cause pulmonary silicosis.

**Inhalation (Breathing):** Respiratory System Effects: Inhalation exposure may cause irritation, redness of upper and lower airways, coughing, laryngeospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema. Severe and permanent scarring may occur. The pulmonary edema may develop several hours after a severe acute exposure.

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**Skin:** Skin Corrosion. Skin exposure may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns.

**Eye:** Serious Eye Damage: Exposure to eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye. The full extent of the injury may not be immediately apparent.

**Ingestion (Swallowing):** Gastrointestinal System Effects: Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur.

Interaction with Other Chemicals Which Enhance Toxicity: None known.

### **GHS HEALTH HAZARDS:**

GHS: ACUTE TOXICITY - ORAL: Category 4 - Harmful if swallowed.

GHS: ACUTE TOXICITY - No data available. Not classified. DERMAL:

GHS: ACUTE TOXICITY - No data available. Not classified.

INHALATION:

Skin Absorbent / Dermal Route? No.

GHS: CONTACT HAZARD - Category 1B - Causes severe skin burns and eye damage SKIN:

GHS: CONTACT HAZARD - EYE: Category 1 - Causes serious eye damage

#### **GHS: CARCINOGENICITY:**

Not classified as a carcinogen per GHS criteria. This product is not classified as a carcinogen by NTP, IARC or OSHA.

### SPECIFIC TARGET ORGAN TOXICITY (Single Exposure):

Category 3 - Respiratory tract irritation

#### **MUTAGENIC DATA:**

Not classified as a mutagen per GHS criteria. In assays using Bacillus subtilis strains without metabolic activation, sodium metasilicate (0.005-0.5 M) was not genotoxic.

# **12. ECOLOGICAL INFORMATION**

### ECOTOXICITY DATA:

#### Aquatic Toxicity:

This material has exhibited moderate toxicity to aquatic organisms.

### FATE AND TRANSPORT:

**BIODEGRADATION:** This material is inorganic and not subject to biodegradation.

**PERSISTENCE:** This material is believed to persist in the environment.

**BIOCONCENTRATION:** This material is not expected to bioconcentrate in organisms.

**ADDITIONAL ECOLOGICAL INFORMATION:** This material has exhibited slight toxicity to terrestrial organisms.

# **13. DISPOSAL CONSIDERATIONS**

#### Waste from material:

Reuse or recycle if possible. May be subject to disposal regulations. Dispose in accordance with all applicable regulations.

#### **Container Management:**

Dispose of container in accordance with applicable local, regional, national, and/or international regulations. Container rinsate must be disposed of in compliance with applicable regulations.

## **14. TRANSPORT INFORMATION**

### LAND TRANSPORT

U.S. DOT 49 CFR 172.101:

UN NUMBER:UN3262PROPER SHIPPING NAME:Corrosive solid, basic, inorganic, n.o.s. (SODIUM METASILICATE)HAZARD CLASS/ DIVISION:8PACKING GROUP:IILABELING REQUIREMENTS:8

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

UN NUMBER:UN3262SHIPPING NAME:Corrosive solid, basic, inorganic, n.o.s. (SODIUM METASILICATE)CLASS OR DIVISION:8PACKING/RISK GROUP:IILABELING REQUIREMENTS:8

### MARITIME TRANSPORT (IMO / IMDG) Regulated

UN NUMBER:	UN3262
PROPER SHIPPING NAME:	Corrosive solid, basic, inorganic, n.o.s. (SODIUM METASILICATE)

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HAZARD CLASS / DIVISION: 8 Packing Group: II LABELING REQUIREMENTS: 8

# **15. REGULATORY INFORMATION**

### U.S. REGULATIONS

### **OSHA REGULATORY STATUS:**

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

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):

Not regulated.

### SARA EHS Chemical (40 CFR 355.30)

Not regulated

EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10): Acute Health Hazard

EPCRA SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):

Not regulated

**FDA:** Sodium Silicates have Generally Recognized as Safe (GRAS) status under specific FDA regulations. Refer to 21 Code of Federal Regulations (CFR) 173, 175, 176, 177, 182, and 184, which is accessible on the FDA's website. This product is not produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the Food and Drug Administration (FDA).

### NATIONAL INVENTORY STATUS

U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA): All components are listed or exempt.

**TSCA 12(b):** This product is not subject to export notification.

Canadian Chemical Inventory: All components of this product are listed on either the DSL or the NDSL.

### STATE REGULATIONS

### California Proposition 65:

This product and its ingredients are not listed, but it may contain impurities/trace elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act. For additional information, contact OxyChem Customer Relations.

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### CANADIAN REGULATIONS

• This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations

#### WHMIS - Classifications of Substances:

• E - Corrosive material

### **16. OTHER INFORMATION**

**Prepared by:** Global Chemical Resources **Rev. Date:** 6-15-2015

HMIS: (SCALE 0-4) (Rated using National Paint & Coatings Association HMIS: Rating Instructions, 2nd Edition)

Health Rating: 3	Flammability Rating: 0	Reactivity Rating: 0
NFPA 704 - Hazard Identif	fication Ratings (SCALE 0-4)	
Health Rating: 3	Flammability: 0	Reactivity Rating: 0

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### Reason for Revision:

- Three year review
- Updated the (M)SDS header
- Updated 24 Hour Emergency Telephone Number: SEE SECTION 1
- Product Identifier has been added or updated: SEE SECTION 1
- Added synonym(s): SEE SECTION 1
- Updated Product Use information: SEE SECTION 1
- Updated Uses Advised Against information: SEE SECTION 1
- Revised Hazard(s) Identification information: SEE SECTION 2
- Added OSHA Status: SEE SECTION 2
- Emergency Overview was revised: SEE SECTION 2
- Added GHS Information: SEE SECTION 2
- Updated First Aid Measures: SEE SECTION 4
- Hazardous combustion products revised: SEE SECTION 5
- Revised Accidental Release Measures: SEE SECTION 6
- Revised Handling and Storage Recommendations: SEE SECTION 7
- Modified Exposure Limit information: SEE SECTION 8
- Updated Physical and Chemical Properties. SEE SECTION 9
- Stability and Reactivity recommendations: SEE SECTION 10
- Toxicological Information has been revised: SEE SECTION 11
- Updated Disposal Considerations. SEE SECTION 13
- Regulatory Information Changes: SEE SECTION 15
- Added SDS Revision Date: SEE SECTION 16

### **IMPORTANT:**

The information presented herein, while not guaranteed, was prepared by technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESSED OR IMPLIED, IS MADE REGARDING PERFORMANCE, SAFETY, SUITABILITY, STABILITY OR OTHERWISE. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, storage, disposal and other factors that may involve other or additional legal, environmental, safety or performance considerations, and Global Chemical Resources assumes no liability whatsoever for the use of or reliance upon this information. While our technical personnel will be happy to respond to questions, safe handling and use of the product remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as, a recommendation to infringe any existing patents or to violate any Federal, State, local or foreign laws

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Safety Data Sheet available to your employees

End of Safety Data Sheet