

SAFETY DATA SHEET

M5420 - ANSI - EN



SODIUM METASILICATE ANHYDROUS

SDS No.: M5420

Rev. Date: 09-Oct-2019

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Identification: Occidental Chemical Corporation
14555 Dallas Parkway, Suite 400
P.O. Box 809050
Dallas, TX 75254

24 Hour Emergency Telephone Number: 1-800-733-3665 or 1-972-404-3228 (USA); CHEMTREC (within USA and Canada): 1-800-424-9300; CHEMTREC (outside USA and Canada): +1 703-527-3887; CHEMTREC Contract No: CCN16186

To Request an SDS: MSDS@oxy.com or 1-972-404-3245

Customer Service: 1-800-752-5151 or 1-972-404-3700

Product Identifier: **SODIUM METASILICATE ANHYDROUS**

Trade Name: Special Grade S-25; Sodium Metasilicate Anhydrous Fines; S-25

Synonyms: Anhydrous Metasilicate; Sodium Metasilicate Anhydrous; Anhydrous Sodium Metasilicate

Product Use: Cleaner; Detergents / soaps; drilling fluids

SECTION 2. HAZARDS IDENTIFICATION

OSHA REGULATORY STATUS: This material is considered hazardous by the OSHA Hazard Communication

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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: CORROSIVE TO METALS. Spilled solutions of sodium metasilicate may pose a slipping hazard.

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

HAZARD CLASSIFICATION:

GHS: PHYSICAL HAZARDS:	• May be 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 - ORAL:	Category 4 - Harmful if swallowed
GHS: TARGET ORGAN TOXICITY (SINGLE EXPOSURE):	Category 3 - May cause respiratory tract irritation

GHS SYMBOL: Corrosive, Exclamation mark



GHS SIGNAL WORD: **DANGER**

GHS HAZARD STATEMENTS:

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GHS - Physical Hazard Statement(s)

- May be corrosive to metals

GHS - Health Hazard Statement(s)

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

GHS - Precautionary Statement(s) - Prevention

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

GHS - Precautionary Statement(s) - Response

- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse
- IF EXPOSED (skin): Immediately call a POISON CENTER OR LICENSED HEALTH CARE PROVIDER
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- IF EXPOSED (eyes): Immediately call a POISON CENTER OR LICENSED HEALTH CARE PROVIDER
- IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
- IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell
- Absorb spillage to prevent material damage

GHS - Precautionary Statement(s) - Storage

- Store in a secure manner
- 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

See Section 11: TOXICOLOGICAL INFORMATION

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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

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Sodium Carbonate	497-19-8	0 - 3
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SECTION 4. FIRST AID MEASURES

INHALATION: If inhalation of this material occurs and adverse effects result, move person to fresh air and keep comfortable for breathing. Call a Poison Center or seek medical attention if you feel unwell.

SKIN CONTACT: Immediately brush off excess chemical and flush contaminated areas with plenty of water. Immediately remove all contaminated clothing, jewelry, and shoes. Rinse skin with large amounts of water/shower. Immediately contact a poison center, physician, or get medical attention. **SPECIFIC TREATMENT:** Wash with lots of water. Discard contaminated leather goods. Wash contaminated clothing before reuse.

EYE CONTACT: If in eyes, immediately rinse eyes cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

INGESTION: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Contact a Poison Center, or a doctor/physician, or get medical attention if you feel unwell.

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.

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.

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.

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.

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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.

SECTION 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.

Hazardous Combustion Products: No information available

Sensitivity to Mechanical Impact: Not sensitive.

Sensitivity to Static Discharge: Not sensitive.

Lower Flammability Level (air): Not flammable

Upper Flammability Level (air): Not flammable

Flash point: Not flammable

Auto-ignition Temperature: No information available

GHS: PHYSICAL HAZARDS:

- May be corrosive to metals

SECTION 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.

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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.

Methods and Materials for Containment, Confinement, and/or Abatement: 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.

Additional Disaster Prevention Measures: No information available.

SECTION 7. HANDLING AND STORAGE

Handling:

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.

Storage:

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).

Incompatible Substances: 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:

- May be corrosive to metals

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

REGULATORY EXPOSURE LIMIT(S):

This product does not contain any components that have regulatory occupational exposure limits (OEL's).

NON-REGULATORY EXPOSURE LIMIT(S):

This product does not contain any components that have advisory (non-regulatory) occupational exposure limits (OEL's); however, the manufacturer has established internal Recommended Exposure Level(s) [REL(s)] as noted below.

Recommended Exposure Limits (REL's) are non-regulatory occupational exposure limits that the manufacturer has established based on health effects data.

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Manufacturer [OXY] Recommended Exposure Limit (REL):	3 mg/m ³ = REL ceiling (internal Occupation Exposure Limit based on data from analogous chemicals)
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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 eyewash 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 Tychem® or similar chemical protective suit. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as Tyvek®.

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, Tychem®, Tyvek®

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Color:	White to faintly colored
Odor:	Odorless
Molecular Formula:	Na ₂ SiO ₃
pH:	12.7 (1% aqueous solution)
Melting Point/Range:	1088 °C
Freezing Point/Range:	Not applicable to solids
Flash point:	Not flammable
Vapor Pressure:	Not applicable
Vapor Density (air=1):	Not applicable
Relative Density/Specific Gravity (water=1):	2.61 g/cm ³ (solutions)
Bulk Density:	54 - 70 lbs/ft ³ (loose)
Water Solubility:	16% @ 20 °C; 210 g/L @ 20 °C
Partition Coefficient (n-octanol/water):	No data available
Auto-ignition Temperature:	No information available

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Decomposition Temperature:	No information available
Odor Threshold [ppm]:	No data available
Evaporation Rate (ether=1):	Not applicable
Volatility:	Not applicable
Flammability (solid, gas):	Not flammable
Lower Flammability Level (air):	Not flammable
Upper Flammability Level (air):	Not flammable
Viscosity:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal temperatures and pressures.

Reactivity: Not reactive under 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. When wet, may react with alkali sensitive metals to form flammable hydrogen gas.

Conditions to Avoid (e.g., static discharge, shock, or vibration): None known.

Incompatible Substances: 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.

SECTION 11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

ACUTE TOXICITY:

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.

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CHRONIC TOXICITY:

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.

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: 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 - ORAL: Category 4 - Harmful if swallowed

GHS: TARGET ORGAN TOXICITY (SINGLE EXPOSURE): Category 3 - May cause respiratory tract irritation

TOXICITY DATA:

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

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

Component	LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
Sodium Metasilicate 6834-92-0	1153 mg/kg (Rat)	No information available	No information available
Sodium Carbonate 497-19-8	4090 mg/kg (Rat)	No information available	No information available

Eye Irritation/Corrosion: The product is classified as causing serious eye injury (Category 1, H318), according to criteria of the GHS. Causes serious eye damage.

Standard Draize (Skin): SODIUM METASILICATE: 250 mg/24 hour(s) skin-human severe; 250 mg/24 hour(s) skin-rabbit severe; 250 mg/24 hour(s) skin-guinea pig moderate

Skin Irritation/Corrosion: This product is classified as causing severe skin burns (Category 1, H314), according to GHS classification criteria. Causes severe skin burns and eye damage.

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Skin Absorbent / Dermal Route: NO.

RESPIRATORY OR SKIN SENSITIZATION: Not classified as a skin or respiratory sensitizer per GHS criteria.

CARCINOGENICITY: No reliable data available. Disodium metasilicate does not carry any structural alerts for carcinogenicity. This product is not classified as a carcinogen by NTP, IARC or OSHA. Not classified as a carcinogen per GHS criteria.

SPECIFIC TARGET ORGAN TOXICITY (Single Exposure): Category 3 - Respiratory tract irritation

SPECIFIC TARGET ORGAN TOXICITY (Repeated or Prolonged Exposure): The substance is not classified as a specific target organ toxicant upon repeated exposure per GHS criteria.

INHALATION HAZARD: The product is not classified as an inhalation hazard, according to criteria of the GHS.

GERM CELL/IN-VITRO MUTAGENICITY: 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.

REPRODUCTIVE TOXICITY: The available data on toxicity for reproduction are limited. The substance is not classified as toxic for reproduction, according to GHS.

DEVELOPMENTAL TOXICITY: Not classified as a developmental or reproductive toxin per GHS criteria.

ASPIRATION HAZARD: Not classified as an aspiration hazard per GHS criteria

TOXICOKINETICS: Not available.

METABOLISM: Not available.

BIOLOGICAL DISTRIBUTION: No information available.

PATHOGENICITY AND ACUTE INFECTIOUSNESS (ORAL, DERMAL, AND INHALATION): Not applicable.

ENDOCRINE DISRUPTOR: Not available.

NEUROTOXICITY: Not Available.

IMMUNOTOXICITY: Not available.

SECTION 12. ECOLOGICAL INFORMATION**ECOTOXICITY (EC, IC, AN LC):**

Component:	Freshwater Fish:	Invertebrate Toxicity:	Algae Toxicity:	Other Toxicity:
Sodium Metasilicate	*LC50 <i>Brachydanio rerio</i> : 210 mg/L 96h *LC50 <i>Brachydanio</i>	*EC50 <i>Daphnia magna</i> : 216 mg/L 96h	No data available	No data available

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	rerio: 210 mg/L 96h semi-static			
Sodium Carbonate	*LC50 Lepomis macrochirus: 300 mg/L 96h static *LC50 Pimephales promelas: 310 - 1220 mg/L 96h static	*EC50 Daphnia magna: 265 mg/L 48h	*EC50 Nitzschia (120 h) =242 mg/L	No data available

Aquatic Toxicity:

This material has exhibited moderate toxicity to aquatic organisms.

FATE AND TRANSPORT:

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

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

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

BIOACCUMULATIVE POTENTIAL: Toxicokinetic data on vertebrates revealed a low potential for bioaccumulation.

MOBILITY IN SOIL: No data available.

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

SECTION 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.

SECTION 14. TRANSPORT INFORMATION**LAND TRANSPORT**

U.S. DOT 49 CFR 172.101:

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UN NUMBER: UN3262
PROPER SHIPPING NAME: Corrosive solid, basic, inorganic, n.o.s. (SODIUM METASILICATE)
HAZARD CLASS/ DIVISION: 8
PACKING GROUP: II
LABELING REQUIREMENTS: 8

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

UN NUMBER: UN3262
SHIPPING NAME: Corrosive solid, basic, inorganic, n.o.s. (SODIUM METASILICATE)
CLASS OR DIVISION: 8
PACKING/RISK GROUP: II
LABELING REQUIREMENTS: 8

MARITIME TRANSPORT (IMO / IMDG)

UN NUMBER: UN3262
PROPER SHIPPING NAME: Corrosive solid, basic, inorganic, n.o.s. (SODIUM METASILICATE)
HAZARD CLASS / DIVISION: 8
Packing Group: II
LABELING REQUIREMENTS: 8

AIR TRANSPORT (ICAO / IATA)

Special Instructions CAO: IATA Certificate for shipping personnel is required

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 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

SARA HAZARD CATEGORIES ALIGNED WITH GHS (2018):

Physical Hazard - Corrosive to Metal

Health Hazard - Acute Toxin (any route of exposure)

Health Hazard - Skin Corrosion or Irritation

Health Hazard - Serious eye damage or eye irritation

Health Hazard - Specific Target Organ Toxicity (STOT) Single Exposure (SE)

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EPCRA SECTION 313 (40 CFR 372.65):

Not regulated.

DEPARTMENT OF HOMELAND SECURITY (DHS)- Chemical Facility Anti-Terrorism Standards (6 CFR 27):

No components in this material are regulated under DHS

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).

EPA'S CLEAN WATER AND CLEAN AIR ACTS:

Component(s) not listed on impacted regulatory lists.

NATIONAL INVENTORY STATUS

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

Component	TSCA Inventory	TSCA ACTIVE LIST	TSCA 12(b)	TSCA - Section 4	TSCA - Section 5	TSCA - Section 6	TSCA - Section 8
Sodium Metasilicate 6834-92-0 (95 - 99 %)	Listed	ACTIVE	Not Listed	Not listed	Not Listed	Not listed	Not listed
Sodium Carbonate 497-19-8 (0 - 3 %)	Listed	ACTIVE	Not Listed	Not listed	Not Listed	Not listed	Not listed

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

CANADIAN CHEMICAL INVENTORY: All components of this product are listed on either the DSL or the NDSL.

Component	DSL	NDSL
Sodium Metasilicate 6834-92-0 (95 - 99 %)	Listed	Not Listed
Sodium Carbonate 497-19-8 (0 - 3 %)	Listed	Not Listed

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.

Component	California Proposition 65 Cancer WARNING:	California Proposition 65 CRT List - Male reproductive toxin:	California Proposition 65 CRT List - Female reproductive toxin:	Massachusetts Right to Know Hazardous Substance List	Rhode Island Right to Know Hazardous Substance List
Sodium Metasilicate	Not Listed	Not Listed	Not Listed	Not Listed	Not listed
Sodium Carbonate	Not Listed	Not Listed	Not Listed	Not Listed	Not listed

Component	New Jersey	New Jersey	New Jersey -	Pennsylvania	Pennsylvania	Pennsylvania	Pennsylvania

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	Right to Know Hazardous Substance List	Special Health Hazards Substance List	Environmental Hazardous Substance List	Right to Know Hazardous Substance List	Right to Know Special Hazardous Substances	Right to Know Special Hazardous Substances	Right to Know Environmental Hazard List
Sodium Metasilicate	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Sodium Carbonate	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

CANADIAN REGULATIONS

Listed on DSL.

Component	Canada - CEPA - Schedule I - List of Toxic Substances	Canada - NPRI	Canada - CEPA - 2010 Greenhouse Gases (GHG) Subject to Mandatory Reporting	CANADIAN CHEMICAL INVENTORY:	NDSL:
Sodium Metasilicate 6834-92-0 (95 - 99)	Not listed	Not Listed	Not Listed	Listed	Not Listed
Sodium Carbonate 497-19-8 (0 - 3)	Not listed	Not Listed	Not Listed	Listed	Not Listed

SECTION 16. OTHER INFORMATION

Prepared by: OxyChem Corporate HESS - Product Stewardship

Rev. Date: 09-Oct-2019

Reason for Revision:

- Removed duplicated Section 4 from ANSI SDS format
- Changed wording on certain phrases in Sections 6, 7, and 10
- Added air transport certificate requirements for shipping personnel: SEE SECTION 14

IMPORTANT:

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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.

SODIUM METASILICATE ANHYDROUS

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End of Safety Data Sheet