

MATERIAL SAFETY DATA SHEET (MSDS)**SODIUM METASILICATE NONAHYDRATE****1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION:**

Product Synonyms: Sodium Metasilicate Nonohydrate
Cash Number 13517-24-3
Product Use: Cleaner, Detergents, Soaps, Ceramic, Specialty Chemicals

2. HAZARDS**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

Skin corrosion (Category 1B), H314

Specific target organ toxicity - single exposure (Category 3), H335

For the full text of the H-Statements mentioned in this Section, see Section 16. Classification according to EU Directives 67/548/EEC or 1999/45/EC

C Corrosive R34

Xi Irritant R37

For the full text of the R-phrases mentioned in this Section, see Section 16

2.2 Label

Labeling according Regulation (EC) No 1272/2008



Precautionary Statements**Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Use only outdoors or in a well-ventilated area

Keep only in original container

Response

Immediately call a POISON CENTER or doctor/physician

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Ingestion

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Spills Absorb spillage to prevent material damage

Storage

Store locked up

Store in a well-ventilated place.

Keep container tightly closed

Store in corrosive resistant polypropylene container with a resistant liner

Store in a dry place

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Component	Weight %	CAS Number
Sodium Metasilicate Nonahydrate	98	13517-24-3

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support (Cardio-Pulmonary Resuscitation and/or Automatic External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.

SKIN CONTACT: Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing and shoes before use. GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

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

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	CO ₂ , dry chemical, dry sand, alcohol-resistant foam.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available
Specific Hazards Arising from the Chemical	
The product causes burns of eyes, skin and mucous membranes.	
Hazardous Combustion Products	Sodium oxides.
Protective Equipment and Precautions for Firefighters	
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full	

6. ACCIDENTAL RELEASE MEASURES

Occupational Release:

Personal Precautions Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid Contact with skin, eyes or clothing.

Environmental Precautions Should not be released into the environment. Do not allow material to contaminate ground water system. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. HANDLING AND STORAGE

Storage Conditions: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances.

Handling Procedures: Avoid creation of dust. Avoid breathing dust. do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

8. EXPOSURE CONTROLS /PERSONAL PROTECTION

Recommended Exposure Limit: 3 mg/m³ ceiling (internal Occupation Exposure Limit based on data from analogous chemicals). **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. When wet mixing, wear splash resistant safety goggles with 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 similar chemical protective suit. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure.

Hand Protection: Wear appropriate chemical resistant gloves.

Protective Material Types: Butyl rubber, Natural rubber.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Appearance: Powder/Granular

Color: White

Odor: Odorless

Molecular Formula: Na₂SiO₃·9H₂O

Boiling Point/Range: Not applicable

Melting Point/Range: 162°F (72.2°C)

Vapor Pressure: Not applicable

Specific Gravity(water=1): Not applicable

pH: > 12+ (1% aqueous solution)

Volatility: Not applicable

Flashpoint: Not flammable

10. STABILITY AND REACTIVITY

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products. Excess heat. Avoid dust formation. Exposure to moist air or water.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Sodium oxides

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processin

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information See actual entry in RTECS for complete information.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium metasilicate	LD50 = 1153 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic No information available

Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Causes burns by all exposure routes

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA
Sodium metasilicate nonahydrate	13517-24-3	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Respiratory system

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed

Product is a corrosive material. Use of gastric larvae or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains.

Component

Sodium metasilicate

Freshwater Algae

Not listed

Freshwater Fish

LC50 = 210 mg/L, 96h
Brachydanio rerio)

Microtox

Not listed

Water Flea

EC50 = 216 mg/L, 96h
Daphnia magna

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT

UN-No: UN3253

Proper Shipping Name: Disodium trioxosilicate

Hazard Class: 8

Packing Group III

TDG

UN-No: UN3253

Proper Shipping Name: Disodium trioxosilicate

Hazard Class: 8

Packing Group III

IATA

UN-No: UN3253

Proper Shipping Name: Disodium trioxosilicate

Hazard Class: 8

Packing Group III

IMDG/IMO

UN-No: UN3253

Proper Shipping Name: Disodium trioxosilicate

Hazard Class: 8

Packing Group III

EMS Number: F-A, S-B

15. REGULATORY INFORMATION

Regulation information

sodium metasilicate, nonahydrate (CAS: 13517-24-3) is found on the following regulatory lists;
International Council of Chemical Associations (ICCA) - High Production Volume List OECD
Representative List of High Production Volume (HPV) Chemicals.

Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available

16. OTHER INFORMATION

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the Date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, Transportation, disposal and release and is not to be considered a warranty or quality specification. The information Relates only to the specific material designated and may not be valid for such material used in combination with any other

Materials or in any process, unless specified in the text