



SAFETY DATA SHEET

SECTION I - IDENTIFICATION

PRODUCT NAME: Sodium metasilicate nonahydrate
CAS #: 13517-24-3
Manufacturer's Name: CHEM-IS-TRY, INC.
Address: 160-4 LIBERTY ST.
METUCHEN, NJ 08840
Telephone #: (732) 372- 7311 Secondary Telephone No: CHEMTREC
FAX #: (732) 372- 7312 (800) 424-9300
24 Hours a Day

Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, synthesis of substances

SECTION II - HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to metals (Category 1), H290 Skin corrosion (Category 1B), H314 Serious eye damage (Category 1), H318 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
For the full text of the H-Statements mentioned in this Section, see Section XVI.

GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary statement(s)

P234 Keep only in original container.
P260 Do not breathe dust or mist.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 + P310 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/doctor.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS

Lachrymator.

SECTION III - COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Formula: $\text{Na}_2\text{O}_3\text{Si} \cdot 9\text{H}_2\text{O}$

Molecular Weight: 284.20 g/mol

CAS-No.: 13517-24-3

EC-No.: 229-912-9

Hazardous Components

Component	Classification	Concentration
Disodium metasilicate nonahydrate	Met. Corr. 1; Skin Corr. 1B; Eye Dam. 1; STOT SE 3; H290, H314, H318, H335	<= 100%

For the full text of the H-Statements mentioned in this Section, see Section XVI.

SECTION IV - FIRST AID MEASURES

Description of first aid measures

General advice, consult a physician. Show this safety data sheet to the doctor in attendance. Move out of the dangerous area.

If Inhaled, If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact, Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact, Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed, never give anything by mouth to an unconscious person. Rinse mouth with water. Do not induce vomiting. Consult a physician.

Most important symptoms and effects, both acute and delayed.

The most important known symptoms and effects are described in the labelling (see section II) and/or in section XI.

Indication of any immediate medical attention and special treatment needed

No data available

SECTION V - FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Special hazards arising from the substance or mixture

Sodium oxides, silicon oxides Not combustible.

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section VIII.

Environmental precautions

Do not let product enter drains

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section XIII.

SECTION VII - HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section II.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Hygroscopic. Storage class (TRGS 510): 8A: Combustible, corrosive hazardous materials

Specific end use(s)

Apart from the uses mentioned in section I, no other specific uses are stipulated.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Exposure controls**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment**Eye/face protection**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, Flame retardant protective clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

- | | |
|--------------------|-------------------|
| a) Appearance: | Form: Solid |
| | Color: White |
| b) Odor: | odourless |
| c) Odor Threshold: | No data available |

d) pH:	12.4 at 10 g/l
e) Melting point/freezing point:	Melting point/range: 48 °C (118 °F)
f) Initial boiling point and boiling range:	No data available
g) Flash point:	()No data available
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability or explosive limits:	No data available
k) Vapor pressure:	No data available
l) Vapor density:	No data available
m) Relative density:	No data available
n) Water solubility:	210 g/l at 20 °C (68 °F) soluble
o) Partition coefficient: n-octanol/water	log Pow: -5.65 - (anhydrous substance), (Lit.), Bioaccumulation
p) Auto-ignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	Not applicable
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

Other safety information

No data available

SECTION X - STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Reacts violently with water.

Conditions to avoid

Exposure to moisture

Incompatible materials

Alcohols, Reacts violently with water., Amines, Sodium/sodium oxides, Potassium Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Oxides of phosphorus, Hydrogen chloride gas

Other decomposition products - No data available.

In the event of fire: see section V

SECTION XI - TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 1,152 - 1,349 mg/kg

Remarks: Gastrointestinal: Ulceration or bleeding from stomach.

LC50 Inhalation - Rat - male and female - 4 h - > 2.06 mg/l (US-EPA)

Inhalation: Irritating to respiratory system.
LD50 Dermal - Rat - male and female - > 5,000 mg/kg (US-EPA) No data available

Skin corrosion/irritation:
Causes skin burns. (ECHA)

Serious eye damage/eye irritation:
Causes serious eye damage.

Respiratory or skin sensitization:
Local lymph node assay (LLNA) - Mouse
Result: negative
(OECD Test Guideline 429)

Germ cell mutagenicity:

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
Inhalation - May cause respiratory irritation. - Respiratory system
Acute inhalation toxicity - mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract.

Specific target organ toxicity - repeated exposure
No data available.

Aspiration hazard
No data available

Additional Information
Repeated dose toxicity - Rat - male and female - Oral - 3 Months - No observed adverse effect level - 227 - 237 mg/kg
RTECS: Not available
Cough, Shortness of breath, Headache, Nausea, Vomiting To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Other dangerous properties cannot be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION XII - ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	semi-static test LC50 - Danio rerio (zebra fish) - 210 mg/l - 96 h (ISO 7346/1) Remarks: (anhydrous substance)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 1,700 mg/l - 48 h (OECD Test Guideline 202) Remarks: (anhydrous substance)
Toxicity to algae	EC50 - Desmodesmus subspicatus (green algae) - 207 mg/l - 72 h (DIN 38412) Remarks: (anhydrous substance)
Toxicity to bacteria	EC50 - activated sludge - > 100 mg/l - 3 h (OECD Test Guideline 209) Remarks: (anhydrous substance)

Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

Discharge into the environment must be avoided.

SECTION XIII - DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION XIV - TRANSPORT INFORMATION

DOT (US)

UN number: 3253	Class: 8	Packing group: III
Proper shipping name: Disodium trioxosilicate		
Reportable Quantity (RQ):		
Poison Inhalation Hazard: No		

IMDG

UN number: 3253	Class: 8	Packing group: III
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EMS-No: F-A, S-B
Proper shipping name: DISODIUM TRIOXOSILICATE

IATA

UN number: 3253 Class: 8 Packing group: III
Proper shipping name: Disodium trioxosilicate

SECTION XV - REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute health hazards

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

SECTION XVI - OTHER INFORMATION

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