



[Sodium Metasilicate Pentahydrate](#)

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Linear Formula	Na <sub>2</sub> SiO <sub>3</sub> • 5H <sub>2</sub> O
Pubchem CID	61495
MDL Number	MFCD00149176
EC No.	229-912-9
IUPAC Name	disodium; dioxido(oxo)silane; pentahydrate
Beilstein/Reaxys No.	N/A
SMILES	O.O.O.O.O.[O-][Si](=O)[O-].[Na+].[Na+]
InChI Identifier	InChI=1S/2Na.O3Si.5H2O/c;;1-4(2)3;;;;/h;;;5*1H2/q2*+1;-2;;;;
InChI Key	ADPGKKZKGXANON-UHFFFAOYSA-N

Signal Word	Danger
Hazard Statements	H314-H335
Hazard Codes	C
Risk Codes	34-37
Safety Statements	13-24/25-36/37/39-45
RTECS Number	VV9287500
Transport Information	UN 3253 8/PG 3
WGK Germany	3
GHS Pictograms	<p><a href="#">GHS05</a> <a href="#">Corrosive</a></p>  <p><a href="#">GHS07</a> <a href="#">Exclamation Point</a></p> 

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## SAFETY DATA SHEET

Date Accessed: 05/21/2024

Date Revised: 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #10213-79-3

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)  
GHS05 Corrosion  
Skin Corr. 1B H314 Causes severe skin burns and eye damage.  
Eye Dam. 1  
H318 Causes serious eye damage.  
GHS07  
Acute Tox. 4 H302 Harmful if swallowed.  
STOT SE 3  
H335 May cause respiratory irritation.  
Hazards not otherwise classified  
No data available  
GHS label elements  
GHS label elements, including precautionary statements  
Hazard pictograms



GHS05 GHS07  
Signal word: Danger  
Hazard statements  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H335 May cause respiratory irritation.  
Precautionary statements  
P260  
Do not breathe dust/fume/gas/mist/vapors/spray.  
P303+P361+P353 IF ON SKIN (or hair):  
Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P405  
Store locked up.  
P501  
Dispose of contents/container in accordance with local/regional/national/international regulations.  
WHMIS classification  
D2B - Toxic material causing other toxic effects  
E - Corrosive material  
Classification system  
HMIS ratings (scale 0-4)  
(Hazardous Materials Identification System)  
Health (acute effects) = 3  
Flammability = 0  
Physical Hazard = 1  
Other hazards  
Results of PBT and vPvB assessment  
PBT: N/A  
vPvB: N/A

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances  
CAS No. / Substance Name:  
10213-79-3 Sodium metasilicate pentahydrate  
Identification number(s):  
EC number: 229-912-9  
Index number: 014-010-00-8

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### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures  
General information  
Immediately remove any clothing soiled by the product.  
If inhaled:  
Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm.  
Seek immediate medical advice.  
In case of skin contact:  
Immediately wash with soap and water; rinse thoroughly.  
Seek immediate medical advice.  
In case of eye contact:  
Rinse opened eye for several minutes under running

water. Consult a physician.  
If swallowed:  
Seek medical treatment.  
Information for doctor  
Most important symptoms and effects, both acute and delayed  
Causes severe skin burns.  
Causes serious eye damage.  
Indication of any immediate medical attention and special treatment needed  
No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media  
Suitable extinguishing agents  
Product is not flammable. Use fire-fighting measures that suit the surrounding fire.  
Special hazards arising from the substance or mixture  
If this product is involved in a fire, the following can be released:  
Silicon oxide  
Sodium oxide  
Advice for firefighters  
Protective equipment:  
Wear self-contained respirator.  
Wear fully protective impervious suit.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures  
Use personal protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Environmental precautions:  
Do not allow product to enter drains, sewage systems, or other water courses.  
Methods and materials for containment and cleanup:  
Use neutralizing agent.  
Dispose of contaminated material as waste according to section 13.  
Ensure adequate ventilation.  
Prevention of secondary hazards:  
No special measures required.  
Reference to other sections  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## **SECTION 7. HANDLING AND STORAGE**

### Handling

Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Information about protection against explosions and fires:

The product is not flammable

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Specific end use(s)

No data available

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

None.

Additional information: No data

Exposure controls

Personal protective equipment

Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Recommended filter device for short term use:  
Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.  
Protection of hands: Impervious gloves  
Inspect gloves prior to use.  
Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.  
Material of gloves  
Nitrile rubber, NBR  
Penetration time of glove material (in minutes)  
480  
Glove thickness  
0.11 mm  
Eye protection:  
Tightly sealed goggles  
Full face protection  
Body protection:  
Protective work clothing.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Appearance:

Form: Solid in various forms

Odor: Odorless

Odor threshold: No data available.

pH: N/A

Melting point/Melting range: 72 °C (162 °F)

Boiling point/Boiling range: No data available

Sublimation temperature / start: No data available

Flammability (solid, gas): No data available.

Ignition temperature: No data available

Decomposition temperature: No data available

Autoignition: No data available.

Danger of explosion: No data available.

Explosion limits:

Lower: No data available

Upper: No data available

Vapor pressure: N/A

Density at 20 °C (68 °F): 1.75 g/cm<sup>3</sup> (14.604 lbs/gal)

Relative density: No data available.

Vapor density: N/A

Evaporation rate: N/A

Solubility in Water (H<sub>2</sub>O): Soluble

Partition coefficient (n-octanol/water): No data available.

Viscosity:

Dynamic: N/A  
Kinematic: N/A  
Other information  
No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
No data available  
Chemical stability  
Stable under recommended storage conditions.  
Thermal decomposition / conditions to be avoided:  
Decomposition will not occur if used and stored according to specifications.  
Possibility of hazardous reactions  
Reacts with strong oxidizing agents  
Conditions to avoid  
No data available  
Incompatible materials:  
Oxidizing agents  
Hazardous decomposition products:  
Silicon oxide  
Sodium oxide

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity:  
Harmful if swallowed.  
Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.  
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.  
LD/LC50 values that are relevant for classification:  
Oral LD50 847 mg/kg (rat)  
Skin irritation or corrosion: Causes severe skin burns.  
Eye irritation or corrosion: Causes serious eye damage.  
Sensitization: No sensitizing effects known.  
Germ cell mutagenicity: No effects known.  
Carcinogenicity:  
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.  
Reproductive toxicity: No effects known.  
Specific target organ system toxicity - repeated exposure: No effects known.  
Specific target organ system toxicity - single

exposure: May cause respiratory irritation.  
Aspiration hazard: No effects known.  
Subacute to chronic toxicity: No effects known.  
Additional toxicological information:  
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.  
Carcinogenic categories  
OSHA-Ca (Occupational Safety & Health Administration)  
Substance is not listed

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity  
Aquatic toxicity:  
No data available  
Persistence and degradability  
No data available  
Bioaccumulative potential  
No data available  
Mobility in soil  
No data available  
Additional ecological information:  
Do not allow undiluted product or large quantities to reach groundwater, water courses, or sewage systems.  
Avoid transfer into the environment.  
Results of PBT and vPvB assessment  
PBT: N/A  
vPvB: N/A  
Other adverse effects  
No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods  
Recommendation  
Consult official regulations to ensure proper disposal.  
Uncleaned packagings:  
Recommendation:  
Disposal must be made according to official regulations.  
Recommended cleansing agent:  
Water, if necessary with cleansing agents.

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## **SECTION 14. TRANSPORT INFORMATION**

UN-Number  
DOT, IMDG, IATA



UN3253  
UN proper shipping name  
DOT  
Disodium trioxosilicate  
IMDG, IATA  
DISODIUM TRIOXOSILICATE  
Transport hazard class(es)  
DOT  
Class  
8 Corrosive substances.  
Label  
8  
Class  
8 (C6) Corrosive substances  
Label  
8  
IMDG, IATA  
Class  
8 Corrosive substances.  
Label  
8  
Packing group  
DOT, IMDG, IATA  
III  
Environmental hazards:  
N/A  
Special precautions for user  
Warning: Corrosive substances  
EMS Number:  
F-A,S-B  
Segregation groups  
Alkalis  
Transport in bulk according to Annex II of  
MARPOL73/78 and the IBC Code  
N/A  
Transport/Additional information:  
DOT  
Marine Pollutant (DOT):  
No  
UN "Model Regulation":  
UN3253, Disodium trioxosilicate, 8, III

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## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental  
regulations/legislation specific for the substance or  
mixture  
GHS GHS label elements, including precautionary  
statements  
Hazard pictograms  
GHS05  
GHS07

Signal word: Danger

Hazard statements

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Precautionary statements

P260

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

P303+P361+P353 IF ON SKIN (or hair):

Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P405

Store locked up.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings)

Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer

Substance is not listed.

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:

For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.

Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

Substance is not listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried

out.

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

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