

Section 1. Product and Company Identification

Product Name Sodium Selenite
CAS Number 10102-18-8

Parchem - fine & specialty chemicals
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CHEMTEL
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All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture

GHS/CLP Classification

Health

Acute Toxicity (Inhalation) - Category 2
Acute Toxicity (Oral) - Category 3
Acute Toxicity (Skin) - Category 3
Eye Irritation - Category 2A
Skin Irritation - Category 1C
Carcinogenicity - Category 2

Environmental

Acute Toxicity - Category 1

Physical

N/A

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements

Hazard Statements

H301: Toxic if swallowed
H311: Toxic in contact with skin
H331: Toxic if inhaled



H411: Toxic to aquatic life with long lasting effects
EUH031: Contact with acids liberates toxic gas

Precautionary Statements

P233: Keep container tightly closed
P260: Avoid breathing dust
P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection

Hazards Identification

In accordance with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and Regulation (EC) No. 1272/2008 concerning the Classification, Labeling and Packaging of Chemicals (CLP).

Section 3. Composition / Information on Ingredients

Common Name Sodium Selenite
Synonym(s) Selenious Acid, Disodium Salt
CAS Number 10102-18-8

COMPONENT	CAS NUMBER	CONCENTRATION
Sodium Selenite	10102-18-8	> 98%

Section 4. First Aid Measures

Eye: Immediately eyewash for 20 minutes and irrigate with a 10% sodium thiosulfate solution. Seek medical attention.

Skin: Wash contacted area thoroughly for 20 minutes with water. Apply ointment or solution containing 10% sodium thiosulfate. A 10% sodium thiosulfate solution will reduce sodium selenite to selenium metal. Seek medical attention if necessary.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Do NOT use mouth to mouth resuscitation. If breathing is difficult, give oxygen. Seek medical attention.

Ingestion: Seek immediate medical attention. If victim is conscious, immediately give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat.

Section 5. Firefighting Measures

Suitable Extinguishing Media: As appropriate for surrounding fire conditions. Use water spray, foam, carbon dioxide, dry sand or special powder.

Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.



Unusual Fire and Explosion Hazards: Emits toxic fumes under fire conditions.

Combustion Products: Fire conditions could release selenium and/or selenium oxides.

Section 6. Accidental Release Measures

Response to Small Spills: Avoid bodily contact. Sweep up (avoid creating dust) and place in a suitable (e.g. plastic) container; recycle or hold for waste disposal. Wash spill area with a 10% sodium thiosulfate solution.

Response to Large Spills: Wear full protective gear, indicated below. Sweep up spillage and hold in a suitable (e.g. plastic or poly-lined) drum for recycling or waste disposal. Wash spill area with a 10% sodium thiosulfate solution. Prevent dispersion of dust to the atmosphere or to water sources.

Section 7. Handling and Storage

Handling: Avoid generating dust. Use in a well ventilated area. Avoid contact with eyes, skin and clothing. Also avoid ingestion and inhalation. Wash thoroughly after handling. Wash contaminated clothing before reuse. This material should only be handled by personnel trained in the safe use of toxic chemicals and this product. Any blending, weighing, or other use of this product should be done in an area restricted to authorized personnel and marked as such. A material safety data sheet should be readily available to all workers where this product is used or consumed. Drums remain hazardous even after emptied.

Storage: Store in a cool area. Protect from moisture. Hygroscopic. Keep securely stored away from children, pets, livestock, and unauthorized handling. Separate from strong acids, food and feedstuffs.

Section 8. Exposure Controls / Personal Protection

Engineering Controls: Safety shower and eyewash should be in the facility. Special exhaust so as to remove any transient sodium selenite dust- general exhaust so as to give fresh air flow through use area.

Personal Protective Equipment

Eye Protection: Chemical goggles so as to prevent any eye contact with dust, splash, etc. Have eye-wash stations available where eye contact can occur.

Skin Protection: Avoid skin contact. Wear rubber or vinyl gloves, boots, coveralls, and head covering so as to prevent any bodily contact with sodium selenite dusts or mists.

Respiratory Protection: Wear appropriate OSHA/MSHA respirator for toxic dusts. Respiratory protection programs must meet the requirements of 29 CFR 191 0.134.or EC 89/686/EEC.

Occupational Exposure Limits

TLV: (as Se) 0.2 mg/m³ as TWA; (ACGIH 2005).

MAK: (Inhalable fraction) 0.05 mg/m³; Peak limitation category: 11(4); Carcinogen category: 38;

Pregnancy risk group: C; (DFG 2006).

Section 9. Physical and Chemical Properties

Appearance: Solid, white to grey crystalline powder
Odor: Odorless
Odor threshold: N/A
pH: 7 to 11 (5% aqueous solution)
Melting point/freezing point: 320°C (decomposes)
Initial boiling point or boiling range: N/A
Flash point: N/A
Evaporation rate (Water=1): N/A
Flammability: Non flammable
Upper/lower flammability or explosive limits: N/A
Vapor pressure: < 0.001 mmHg at 68.0°F
Vapor density (Air=1): 5.96
Relative density: 3.1
Solubility in water: 85 g/100 ml (20°C)
Partition coefficient (n-octanol/water): N/A
Auto-ignition temperature: N/A
Decomposition temperature: N/A
Viscosity: N/A
Molecular formula: Na₂SeO₃
Molecular weight: 172.94 g/mol

Section 10. Stability and Reactivity

Stability: Protect from moisture and heat above 320°C.
Incompatibility: Strong acids, moisture, reducing agents.
Hazardous Reactions/Decomposition Products: Selenium, selenium oxides, and Sodium oxide.

Section 11. Toxicological Information

Signs and Symptoms of Overexposure

Ingestion: Garlic odor of breath, nausea, dizziness, headache, abdominal cramps, and listlessness. INGESTION CAN BE FATAL.

Skin Contact: Skin irritation such as rash or carbuncle. Effect may be delayed.

Eye Contact: Burning, extreme irritation.

Inhalation: May cause lung congestion or inflammation of air passages. May impart garlic odor to breath and cause nausea, cough, vomiting, sore throat, dizziness or headache. INHALATION CAN BE FATAL.

Acute Effects

Eye Contact: Causes severe eye irritation and possible redness.

Skin Contact: Skin contact may cause carbuncle or rash and redness- material may be absorbed



through skin.

Inhalation: Extremely toxic by inhalation. May cause liver and kidney damage. May cause cardiac abnormalities.

Ingestion: Ingestion can be fatal.

Acute Systemic Effects: May be hepatotoxic or neurotoxic. May cause effects on the liver, heart, nervous system and gastrointestinal tract.

Chronic Effects: Prolonged skin contact may cause dermatitis. May effect the central nervous system, bone, and blood.

Medical Conditions Aggravated by Exposure: Preexisting respiratory tract diseases, skin disorders, or impaired respiratory function.

Acute Toxicity Values

Oral LD50 Rat: 7 mg/kg

Oral LD50 Rabbit: 2.250 mg/kg

Oral LD50 GPG: 5.06 mg/kg

Oral LD50 Mouse: 7.08 mg/kg

Carcinogenicity: Not listed. Listed as IARC group 3 as selenium compounds.

Mutagenesis: Reported.

Section 12. Ecological Information

This substance is toxic to aquatic organisms. In the food chain important to humans, bioaccumulation takes place, specifically in plants and fish.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

US Department of Transportation (DOT)

Proper Shipping Name: Selenites (Sodium Selenite)

D.O.T. Label: Poison

Hazard Class: 6.1

UN/NA Number: UN2630

Packing Group: I

Placards: Poison

Maritime Organization (IMDG)

Proper Shipping Name: Selenites (Sodium Selenite)

Hazard Class: 6.1

UN/NA Number: UN2630

Packing Group: PG I



Placards: Poison

RID/ADR/IMO/IATA

Proper Shipping Name: Selenites (Sodium Selenite)

Hazard Class: 6.1

UN/NA Number: UN2630

Packing Group: PG I

Placards: Poison

Section 15. Regulatory Information

U.S. Federal Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): Sodium Selenite (CAS No. 10102-18-8): Listed for CERCLA Sec. 103, 100 pounds: Comprehensive Environmental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4.

Toxic Substances Control Act (TSCA): Sodium Selenite (CAS No. 10102-18-8): Listed for TSCA, Flag None. TSCA: Toxic Substances Control Act. Requirement to submit a pre-manufacturing notice before commencing to manufacture or import a new substance.

Resource Conservation and Reclamation Act (RCRA): Sodium Selenite (CAS No. 10102-18-8): Listed for RCRA: (Toxic listed for Selenium, 0010) Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33.

Clean Water Act (CWA): Sodium Selenite (CAS No. 10102-18-8): Listed for CWA, RQ 100 pounds. Clean Water Act for Hazardous Substances which requires reporting for releases. This product is not listed as a Priority Pollutant under CWA. However Selenium is listed as a Priority Pollutant under CWA.

Clean Air Act: Sodium Selenite (CAS No. 101 02-18-8): (listed as Selenium compounds) is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Superfund Amendments and Reauthorization Act (SARA) Title III Information

SARA 302 EHS RQ: Sodium Selenite (CAS No. 10102-18-8): Listed for SARA Section 302 EHS RQ 100 pounds: Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA 302 EHS TPQ: Sodium Selenite (CAS No. 10102-18-8): Listed for SARA Section 302 EHS TPQ 100/10,000 pounds: Threshold Planning Quantity of Extremely Hazardous Substance. An asterisk(*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity= 10,000 LBS.



SARA Section 313: Sodium Selenite (CAS No. 10102-18-8): Listed for SARA Section 313 Chemicals: (Selenium Compounds- SARA 313) Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.

European Inventory of Existing Chemicals (EINECS)

EC Classification

Very Toxic (+T)
DANGEROUS FOR THE ENVIRONMENT (+N)

Risk (R) Phrases

R23: Toxic by inhalation.
R28: Very toxic if swallowed
R31: Contact with acids liberates toxic gases
R43: May cause skin sensitization by skin contact
R51/53: Toxic to aquatic organisms, may cause long term effects in the aquatic environment

Safety (S) Phrases

S1/2: Keep locked up and out of the reach of children
S28: After contact with skin wash immediately with plenty of 10% Sodium Thiosulfate solution.
S36/37: Wear suitable protective clothing and gloves.
S45: In case of accident or if you feel unwell, seek medical advice immediately. (Show the label where possible.)
S61: Avoid release to the environment.

Canada - DSL/NDSL

CAS# 10102-18-8 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D1A, 028.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 10102-18-8 (listed as Selenium compounds) is listed on the Canadian Ingredient Disclosure List.



Section 16. Other Information

Disclaimer: 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.

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