

1 Identification

- **Product identifier**
- **Trade name:** Sodium Selenite, gamma-irradiated
- **Article number:** 194587
- **CAS Number:**
10102-18-8
- **EC number:**
233-267-9
- **Molecular Formula** Na₂ O₃ Se
- **Molecular Weight** 172.94
- **Application of the substance / the mixture** For Research Use Only
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
MP Biomedicals, LLC
29525 Fountain Parkway
Solon, OH 44139
United States
www.mpbio.com
- **Information department:** Quality Control Department
- **Emergency telephone number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 3 H331 Toxic if inhaled.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS06 GHS07

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Sodium Selenite
- **Hazard statements**
Fatal if swallowed.
Toxic if inhaled.
May cause an allergic skin reaction.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/27/2018

Reviewed on 02/27/2018

Trade name: Sodium Selenite, gamma-irradiated

(Contd. of page 1)

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves.

If swallowed: Immediately call a poison center/doctor.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

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

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 4

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 4

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

10102-18-8 Sodium Selenite

· **Identification number(s)**

· **EC number:** 233-267-9

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Consult your Doctor. Show the safety data sheet to the Doctor. Away from the dangerous area.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:**

Supply fresh air or oxygen; call for doctor.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/27/2018

Reviewed on 02/27/2018

Trade name: Sodium Selenite, gamma-irradiated

(Contd. of page 2)

- If breathed in, supply fresh air. If not breathing, give artificial respiration. Consult a Doctor.*
- **After skin contact:** Wash off with soap and plenty of water. Consult a Doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
For personal protection see section 8.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Pick up mechanically, dispose contaminated material as waste according to Section 13.
Ensure adequate ventilation.
- **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.
- **Protective Action Criteria for Chemicals**

· PAC-1:

1.3 mg/m³

· PAC-2:

2.3 mg/m³

· PAC-3:

3.1 mg/m³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace. Avoid direct contact with skin and eyes.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** 15-30°C

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/27/2018

Reviewed on 02/27/2018

Trade name: Sodium Selenite, gamma-irradiated

(Contd. of page 3)

- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions:**
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see Section 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

10102-18-8 Sodium Selenite

PEL	Long-term value: 0.2 mg/m ³ as Se
REL	Long-term value: 0.2 mg/m ³ as Se
TLV	Long-term value: 0.2 mg/m ³ as Se

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
 - **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - **Eye protection:** Not required.

US

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/27/2018

Reviewed on 02/27/2018

Trade name: Sodium Selenite, gamma-irradiated

(Contd. of page 4)

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Powder
· Color:	White
· Odor:	Indeterminate
· Odor threshold:	Not determined.

· pH-value: Not applicable.

· Change in condition

· Boiling point/Boiling range: Undetermined.

· Flash point: Not applicable.

· Flammability (solid, gaseous): Product is not flammable.

· Decomposition temperature: Not determined.

· Auto igniting: Not determined.

· Danger of explosion: See section 10

· Explosion limits:

· Lower:	Not Applicable
· Upper:	Not Applicable

· Vapor pressure: Not applicable.

· Density:	Not Applicable
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.

· Solubility in / Miscibility with Water: Not Determined Soluble.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

· Dynamic:	Not applicable.
· Kinematic:	Not applicable.
· VOC content:	0.00 %
	0.0 g/l / 0.00 lb/gl

· Other information: No further relevant information available.

10 Stability and reactivity

· Reactivity: No further relevant information available.

· Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· Possibility of hazardous reactions: No dangerous reactions known.

· Conditions to avoid: No further relevant information available.

· Incompatible materials: No further relevant information available.

· Hazardous decomposition products: No dangerous decomposition products known.

US
(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/27/2018

Reviewed on 02/27/2018

Trade name: Sodium Selenite, gamma-irradiated

(Contd. of page 5)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Oral	LD50	2.25 mg/kg (rabbit)
Inhalative	LC50/4 h	0.5 mg/L

10102-18-8 Sodium Selenite

Oral	LD50	7.08 mg/kg (mouse) 2.25 mg/kg (rabbit)
Inhalative	LC50/4 h	0.5 mg/L (ATE)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** Irritant and potentially harmful

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

3

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

10102-18-8 Sodium Selenite

Oral	LC50 / 96 h	2.75 mg/L (<i>Oncorhynchus mykiss</i>)
------	-------------	--

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

US

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/27/2018

Reviewed on 02/27/2018

Trade name: Sodium Selenite, gamma-irradiated

(Contd. of page 6)

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Can not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Discard must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleaning agents.

14 Transport information

- | | |
|---|---|
| · UN-Number | UN2630 |
| · DOT, ADR, IMDG, IATA | UN2630 |
| · UN proper shipping name | Selenates |
| · DOT | 2630 Selenates (Sodium Selenite), ENVIRONMENTALLY HAZARDOUS |
| · ADR | SELENATES, MARINE POLLUTANT |
| · IMDG | SELENATES, MARINE POLLUTANT |
| · IATA | SELENATES |
| · Transport hazard class(es) | |
| · DOT | |
| | |
| · Class | 6.1 Toxic substances |
| · Label | 6.1 |
| <hr style="border-top: 1px dashed black;"/> | |
| · ADR, IMDG | |
| | |
| · Class | 6.1 Toxic substances |
| · Label | 6.1 |
| <hr style="border-top: 1px dashed black;"/> | |
| · IATA | |
| | |
| · Class | 6.1 Toxic substances |
| · Label | 6.1 |
| · Packing group | I |
| · DOT, ADR, IMDG, IATA | I |
| · Environmental hazards: | |
| · Marine pollutant: | Yes (DOT)
Symbol (fish and tree) |

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/27/2018

Reviewed on 02/27/2018

Trade name: Sodium Selenite, gamma-irradiated

(Contd. of page 7)

· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Toxic substances
· Danger code (Kemler):	66
· EMS Number:	6.1-04
· Stowage Category	E
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 5 kg On cargo aircraft only: 50 kg
· Hazardous substance:	0045 lbs, 4560 kg
· Remarks:	Special marking with the symbol (fish and tree).
· ADR	
· Excepted quantities (EQ)	Code: E5 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 300 g
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E5 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 300 g
· UN "Model Regulation":	UN 2630 SELENATES (SODIUM SELENITE), 6.1, I, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

· Sara

· **Section 355 (extremely hazardous substances):**

Substance is listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **TSCA new (21st Century Act) (Substances not listed)**

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/27/2018

Reviewed on 02/27/2018

Trade name: Sodium Selenite, gamma-irradiated

(Contd. of page 8)

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

D

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS06 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Sodium Selenite

· **Hazard statements**

Fatal if swallowed.

Toxic if inhaled.

May cause an allergic skin reaction.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves.

If swallowed: Immediately call a poison center/doctor.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

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

Store locked up.

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

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Quality Control Dept.

· **Date of preparation / last revision** 02/27/2018 / -

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/27/2018

Reviewed on 02/27/2018

Trade name: Sodium Selenite, gamma-irradiated

(Contd. of page 9)

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Skin Sens. 1: Skin sensitisation – Category 1

US