



MATERIAL SAFETY DATA SHEET SDS/MSDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Sodium Selenite

CAS-No. : 10102-18-8

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Bio-Chem Chemicals
5455 Nicholson Road, Science Market
Ambala Cantt, 133001 - Haryana
+91 82952 41953
info@biofinechemical.com - www.biofinechemical.com

1.4 Emergency telephone number

Emergency Phone # : +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
Acute toxicity, Oral (Category 2), H300 Acute toxicity, Inhalation (Category 3), H331
Skin sensitisation (Category 1), H317
Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word : Danger

Hazard statement(s)

H300	Fatal if swallowed.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P261	Avoid breathing dust.
P264	Wash hands thoroughly after handling.

P273	Avoid release to the environment.
P280	Wear protective gloves.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P311	Call a POISON CENTER /doctor.
Supplemental Hazard information (EU)	
EUH031	Contact with acids liberates toxic gas.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Contact with acids liberates toxic gas.

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula	: Na ₂ SeO ₃
Molecular weight	: 172.94 g/mol
CAS-No.	: 10102-18-8
EC-No.	: 233-267-9
Index-No.	: 034-003-00-3

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
Sodium selenite			
CAS-No.	10102-18-8	Acute Tox. 2; Skin Irrit. 2; Eye	<= 100 %
EC-No.	233-267-9	Irrit. 2; Skin Sens. 1; Aquatic	
Index-No.	034-003-00-3	Chronic 2; H300, H330, H315, H319, H317, H411	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry powder

5.2 Special hazards arising from the substance or mixture

Sodium oxides, Selenium/selenium oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. 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.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids. Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses 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, 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 (EN 143) respirator cartridges as a backup to engineering controls. If th 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

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

a) Appearance	Form: powder Colour: beige
b) Odour	odourless
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: > 350 °C - lit.
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) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	soluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong acids

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sodium oxides, Selenium/selenium oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 7 mg/kg(Sodium selenite)

Remarks: Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or

Respiration:Dyspnea. Diarrhoea

LD50 Oral - Rat - male - 7 mg/kg(Sodium selenite)

LC50 Inhalation - Rat - male and female - 4 h - > 0.052 - 0.51 mg/l(Sodium selenite)

LD50 Intravenous - Rat - 3 mg/kg(Sodium selenite)

LD50 Parenteral - Rat - 6.57 mg/kg(Sodium selenite)

LD50 Subcutaneous - Mouse - 13 mg/kg(Sodium selenite)

LD50 Intravenous - Mouse - 5 mg/kg(Sodium selenite)

Remarks: Peripheral Nerve and Sensation:Flaccid paralysis without anesthesia (usually neuromuscular blockage). Cardiac:Other changes. Lungs, Thorax, or Respiration:Other changes.

LD50 Intracervical - Mouse - 0.3 mg/kg(Sodium selenite)

Remarks: Peripheral Nerve and Sensation:Flaccid paralysis without anesthesia (usually neuromuscular blockage). Behavioral:Change in motor activity (specific assay). Lungs, Thorax, or

Respiration:Dyspnea. LD50 Intravenous - Dog - 1.916 mg/kg(Sodium selenite)

Remarks: Cardiac:Arrhythmias (including changes in conduction). Lungs, Thorax, or

Respiration:Respiratory stimulation. Diarrhoea

LD50 Intramuscular - Rabbit - 2.53 mg/kg(Sodium selenite)

LD50 Parenteral - Chicken - 8.5 mg/kg(Sodium selenite)

LD50 Intramuscular - Domestic Animals - 1.533 mg/kg(Sodium selenite)

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Olfaction:Other changes.

Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or Respiration:Dyspnea.

Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE)(Sodium selenite)

Result: Irritating to skin.

(OECD Test Guideline 439)

Serious eye damage/eye irritation

No data available(Sodium selenite)

Respiratory or skin sensitisation

- Mouse(Sodium selenite)

May cause allergic skin reaction.

(OECD Test Guideline 429)

Germ cell mutagenicity

reverse mutation assay(Sodium selenite)

Salmonella typhimurium

Result: negative

(Sodium selenite)

Mouse - male

Result: negative

Carcinogenicity

This product is or contains a component that is not classifiable as to its classification.(Sodium selenite)
(Sodium selenite)

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Sodium selenite)

Reproductive toxicity

No data available(Sodium selenite)

Specific target organ toxicity - single exposure

No data available(Sodium selenite)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Sodium selenite)

Additional Information

RTECS: Not available

Salivation, Tremors, Alopecia., Vomiting, Dermatitis(Sodium selenite)

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Sodium selenite)

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 2.75 mg/l - 96.0 h(Sodium selenite)
Toxicity to daphnia and other aquatic invertebrates	LC50 - Daphnia magna (Water flea) - 0.25 mg/l - 48 h(Sodium selenite)
Toxicity to algae	static test EC50 - Chlamydomonas reinhardtii (green algae) - 6.32 mg/l - 96 h(Sodium selenite) (OECD Test Guideline 201)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Bioaccumulation	Lepomis macrochirus - 120 d - 10 µg/l(Sodium selenite) Bioconcentration factor (BCF): 1,850
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12.4 Mobility in soil

No data available(Sodium selenite)

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Toxic to aquatic life with long lasting effects.

No data available

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information**14.1 UN number**

ADR/RID: 2630

IMDG: 2630

IATA: 2630

14.2 UN proper shipping name

ADR/RID: SELENITES (Sodium selenite)

IMDG: SELENITES (Sodium selenite)

IATA: Selenites (Sodium selenite)

14.3 Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

14.4 Packaging group

ADR/RID: I

IMDG: I

IATA: I

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3.**

EUH031	Contact with acids liberates toxic gas.
H300	Fatal if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H411	Toxic to aquatic life with long lasting effects.

Further information

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.