Material Safety Data Sheet

Selenous Acid (RXSOL-68-9506-025)

1. Product and Company Identifaction

Product Name	**Sodium Selenite**
Part Number	RXSOL-95-9506-100

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Phone	91 22 65113333
Fax	91 22 2781 1318
Email	**mail@rxmarine.com**

2. Composition / informationon ingredients

Chemical Name	Concentration	CAS Number
Sodium Selenite	99-100 %	10102-18-8

Chemical Formula : Na2-Se-O3
Molecular weight : 172.94 g/mol

3. Hazards Identification

Potential Acute Health Effects: Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (permeator). Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Classified POSSIBLE for human.

DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [POSSIBLE].

The substance may be toxic to blood, kidneys, liver, skin, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

4. First Aid Measures

Contact with skin	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately..
Contact with eyes	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

5. Fire-fighting Measures

Flammability of the Product: Non-flammable.
Auto-Ignition Temperature: Not applicable.
Flash Points: Not applicable.
Flammable Limits: Not applicable.
Products of Combustion: Not available.
Fire Hazards in Presence of Various Substances: Not applicable.
Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions: Not applicable.
Special Remarks on Fire Hazards: Not available.
Special Remarks on Explosion Hazards: Not available.

6. Accidental Release Measures

Personal Precautions	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.
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.
Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill	Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7. Handling and Storage

Precuation	Keep locked up.. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

8. Exposure controls and personal protection

Engineering Control	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Occupational exposure controls	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	TWA: 0.2 from ACGIH (TLV) [United States] [1995] Consult local authorities for acceptable exposure limits.



Goggles

9. Physical and chemical properties

Odour	Odourless
Appearance	Powder , white
pH	NA
Boiling point	710°C (1310°F)
Melting Point	710°C (1310°F)
Specific Gravity	3.1 (Water = 1)
Vapour pressure	Not known
Vapour Density	5.96 (Air = 1)
Odor Threshold	Not available.
Ionicity (in Water)	Not available.
Solubility	Soluble in water

10. Stability and reactivity

Stability	The product is stable.
Instability Temperature	Not available.
Incompatibles Conditions of Instability	Incompatible materials.
Incompatibility with various substances	NA
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity:	NA
Polymerization	Will not occur.

11. Toxicological information

Absorbed through skin. Dermal contact. Inhalation. Ingestion.

Toxicity to Animal	Acute oral toxicity (LD50): 7 mg/kg [Rat].
Chronic Effects on Humans	CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Classified POSSIBLE for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [POSSIBLE]. May cause damage to the following organs: blood, kidneys, liver, skin, central nervous system (CNS).
Other Toxic Effects on Humans	Very hazardous in case of skin contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animal	NA
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects (paternal and maternal). Embryotoxic and/or foetotoxic in animal. May affect genetic material (mutagenic). May cause cancer based on animal data.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation, dermatitis, and flushing. Eyes: causes severe eye irritation. Inhalation: May cause respiratory tract and mucous membrane irritation with coughing, nasal discharge, epistaxis, and olfactory fatigue, pulmonary edema, metal fume fever (symptoms include: chills, fever, headache), bronchitis, pneumonitis, transient dyspnea. Ingestion: Causes gastrointestinal irritation with nausea, vomiting, diarrhea, salivation, and gastrointestinal pain. Also causes halitosis or a garlic-like odor of the breath and affects behavior/central nervous system (CNS depression, restlessness, muscle contraction, weakness, tremor, or spaticity, convulsions, lightheaded sensation, sluggish pupillary reflexes, somnolence), blood (leukopenia), urinary system (bladder, kidneys), cardiovascular system, and liver (dengeneration and cirrhosis). Chronic Potential Health Effects: Skin: It is absorbed through the skin. Effects of chronic or prolonged exposure by skin contact may include dermatits, hair discoloration, alopecia. It may also affect behavior (convulsions). Ingestion: Chronic or prolonged exposure by ingestion may affect the blood (anemia, leukocytosis), liver (hepatic necrosis, hemorrhage, cirrhosis), urinary system (kidneys, bladder). It may also cause metallic taste, garlic-like odor on the breath, paleness, coated tongue, nervousness, irritability, fatigue, and hyperreflexia.

12. Ecological information

Ecotoxicity	NA
Products of Biodegradation	NA
Toxicity of the Products of Biodegradation.	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Special Remarks on the Products of Biodegradation	The products of degradation are less toxic than the product itself.

13. Disposal considerations

Classification	EU Waste class: -
Disposal considerations	Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

UN number
ADR/RID: 2630 IMDG: 2630 IATA: 2630

UN proper shipping name
ADR/RID: SELENITES (Sodium selenite)
IMDG: SELENITES (Sodium selenite)
IATA: Selenites (Sodium selenite)

Transport hazard class(es)
ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

Packaging group
ADR/RID: I IMDG: I IATA: I

Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user
No data available

15. Regulatory information

Federal and State Regulations:
Connecticut hazardous material survey.: Sodium selenite Illinois chemical safety act: Sodium selenite New York acutely hazardous substances: Sodium selenite Pennsylvania RTK: Sodium selenite Florida: Sodium selenite Massachusetts RTK: Sodium selenite Massachusetts spill list: Sodium selenite New Jersey: Sodium selenite New Jersey spill list: Sodium selenite Louisiana RTK reporting list: Sodium selenite Louisiana spill reporting: Sodium selenite TSCA 8(b) inventory: Sodium selenite SARA 302/304/311/312 extremely hazardous substances: Sodium selenite SARA 313 toxic chemical notification and release reporting: Sodium selenite CERCLA: Hazardous substances.: Sodium selenite: 475 kgs

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances. Other Classifications:

WHMIS (Canada):
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):
R28- Very toxic if swallowed. R38- Irritating to skin. R40- Possible risks of irreversible effects. R41- Risk of serious damage to eyes. R62- Possible risk of impaired fertility. R63- Possible risk of harm to the unborn child. S1/2- Keep locked up and out of the reach of children. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of [***] S36/37- Wear suitable protective clothing and gloves. S39- Wear eye/face protection. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):
Health Hazard: 3
Fire Hazard: 0
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):
Health: 3
Flammability: 0
Reactivity: 0
Specific hazard:

Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

16. Other information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ***Rx Marine International*** *be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if* ***Rx Marine International*** *has been advised of the possibility of such damages.*