

Revision Date 01.01.2025  
Data of first issue 09.01.2017

## Material Safety Data Sheet

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name Sodium selenite  
Product number A67518  
Brand 3ASenrise  
CAS number 10102-18-8

#### 1.2 Details of the supplier of the safety data sheet

Company: Anhui Senrise Technology Co., Ltd.  
Address: No.88 Weisan Road, High-Tech Industrial Development Zone, Anqing, Anhui  
Post code: 246003  
Tel: 400-005-6266  
Fax: 0556-5555368  
Email: service@3asenrise.com

#### 1.3 Emergency telephone

Emergency telephone: 0556-5500208

#### 1.4 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For R&D use only. Not for pharmaceutical, household or other uses.

### 2 HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Acute toxicity, Oral (Category 2), H300  
Acute toxicity, Inhalation (Category 2), H330  
Skin corrosion/irritation (Category 2), H315  
Serious eye damage/eye irritation (Category 2A), H319  
Skin sensitization (Category 1), H317  
Short-term (acute) aquatic hazard (Category 2), H401  
Long-term (chronic) aquatic hazard (Category 2), H411

#### 2.2 GHS label elements, including precautionary statements

##### Pictogram



Signal word: **Danger**

##### Hazard statement(s)

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

H300+H330 Fatal if swallowed or if inhaled.

### **Precautionary statement(s)**

#### **Prevention**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P270 Do not eat, drink or smoke when using this product.

P264 Wash hands thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P284 Wear respiratory protection.

P271 Use only outdoors or in a well-ventilated area.

#### **Response**

P302+P352 IF ON SKIN: wash with plenty of soap and water.

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

P337+P313 IF eye irritation persists: Get medical advice/attention.

P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

P391 Collect spillage. Hazardous to the aquatic environment

P301+P310+P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.

P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

#### **Storage**

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

#### **Disposal**

P501 Dispose of contents/ container to an approved waste disposal plant.

### **2.3 Physical and chemical hazards**

No data available

### **2.4 Health hazards**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H330 Fatal if inhaled.

H300 Fatal if swallowed.

### **2.5 Environmental hazards Code**

H411 Toxic to aquatic life with long lasting effects.

H401 Toxic to aquatic life.

### **2.6 Other hazards**

No data available

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

### **Substance / Mixture: Substance**

#### **3.1 Substance**

Name	Sodium selenite
Formula	Na <sub>2</sub> SeO <sub>3</sub>
Molecular Weight	172.94
CAS	10102-18-8

Concentration

anhydrous, 99%

## **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. Consult a physician.

#### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### **If swallowed**

Do NOT induce vomiting. 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**

No data available.

## **5 FIREFIGHTING MEASURES**

### **5.1 Extinguishing media**

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

### **5.2 Special hazards arising from the substance or mixture**

Sodium oxides Selenium/selenium oxides Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

## **6 ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

### **6.4 Reference to other section**

For disposal see section 13.

## **7 HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

#### **Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### **Hygiene measures**

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

## 7.2 Conditions for safe storage, including any incompatibilities

### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Long term storage: RT

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

No data available.

### 8.2 Personal protective equipment

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

#### 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.

#### Body protection

Flame retardant antistatic protective clothing.

#### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

#### Control of environmental exposure

Do not let product enter drains. Risk of explosion.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance	Pink to light yellow to white powder
b) Odor	odorless
c) pH	No data available
d) Melting point/freezing point	> 350 ° C
e) Initial boiling point and boiling range	No data available
f) Upper/lower flammability or explosive limits	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Vapor pressure	< 0.00133 hPa at 20 ° C – (Lit.)
j) Vapor density	No data available
k) Density	No data available
l) Water solubility	898 g/l at 25 ° C – soluble. (Lit.)
m) Partition coefficient: n-octanol/water	No data available
n) Autoignition temperature	> 400 ° C at 1,013.25 hPa – Relative self-ignition temperature for solidsnot auto-flammable
o) Decomposition temperature	No data available
p) Flammability	The product is not flammable.

## 10 STABILITY AND REACTIVITY

### 10.1 Chemical stability

No data available.

### 10.2 Conditions to avoid

No data available.

### 10.3 Incompatible materials

No data available

### 10.4 Hazardous decomposition products

In the event of fire: see section 5.

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Acute toxicity

LD50 Oral

– Rat – 7 mg/kg

LC50 Inhalation

– Rat – male and female – 4 h – > 0.052 – 0.51 mg/l – dust/mist

LD50 Dermal

No data available

### 11.2 Skin corrosion/irritation

Skin – human keratinocytes Result: irritating

### 11.3 Serious eye damage/eye irritation

No data available

### 11.4 Respiratory or skin sensitization

Local lymph node assay (LLNA) – Mouse May cause allergic skin reaction.

### 11.5 Germ cell mutagenicity

Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative Test Type: Chromosome aberration test in vitro Test system: Chinese hamster fibroblasts Metabolic activation: with and wi

### 11.6 Carcinogenicity

No data available

### 11.7 Reproductive toxicity

No data available

### 11.8 Specific target organ toxicity - single exposure

No data available

### 11.9 Specific target organ toxicity - repeated exposure

No data available

### 11.10 Aspiration hazard

no data available.

### 11.11 Additional Information

Salivation, Tremors, Alopecia. Vomiting, Dermatitis To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. The following applies to selenium compounds in general: strong irritant effect on mucous membranes, especially in the eye and in the respiratory tract (bronchopneumonia, pulmonary oedema); selenium acts as an enzyme toxin already after the absorption of small doses; typical garlic odour of perspiration and breath; dermatitis is possible; long-term exposure results in impairments in the intermediary metabolism; toxic effect on liver, kidneys, urinary tract, gastrointestinal tract, spleen, bone marrow, heart, nerves (paralysis symptoms). Selenium is an essential trace element for man. After absorption: Other dangerous properties can not be excluded. We have no description of any toxic symptoms. This substance should be handled with particular care.

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish:

LC50 – Pimephales promelas (fathead minnow) – 1.7 mg/l – 96 h

Toxicity to daphnia and other aquatic:

static test EC50 – Daphnia magna (Water flea) – 1.1 mg/l – 48 h

Toxicity to algae:

No data available

Toxicity to bacteria:

No data available

## **12.2 Persistence and degradability**

The methods for determining biodegradability are to inorganic substances.

## **12.3 Bioaccumulative potential**

Bioaccumulation Lepomis macrochirus – 120 d – 10 µg/l (Sodium selenite) Bioconcentration factor (BCF): 1,850

## **12.4 Mobility in soil**

No data available

## **12.5 Other adverse effects**

No data available

# **13 DISPOSAL CONSIDERATIONS**

## **13.1 Waste treatment methods**

### **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Observe all federal, state and local regulations when disposing of the substance.

### **Contaminated packaging**

Disposal must be made according to official regulations.

# **14 TRANSPORT INFORMATION**

## **14.1 UN number**

ADR/RID: 2630 IMDG: 2630 IATA: 2630

## **14.2 UN proper shipping name**

ADR/RID: SODIUM SELENITE

IMDG: SODIUM SELENITE

IATA-DGR: 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: yes IMDG Marine pollutant: yes IATA: no

## **14.6 Special precautions for user**

No data available

# **15. REGULATORY INFORMATION**

## **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Applicable regulations

Regulations on the Control over Safety of Dangerous Chemicals.

This product is included in the list of dangerous chemicals.

Please pay attention to waste disposal and meet the requirements of local regulations.

# **16. OTHER INFORMATION**

## Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

CAS: Chemical Abstracts Service (division of the American Chemical Society)

## Further information

The above safety technical information is for reference only, because many physical and chemical properties are not entirely clear. Please consult information carefully before use and use after confirmation.

Anhui Senrise Technology Co., Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product. More terms of use, see invoice information for details.

Tel: +86 -400-005-6266 Fax: +86 -0556-5555368 E-mail: Service@3asenrise.com

Add: No.88 Weisan Road, High-Tech Industrial Development Zone, Anqing, Anhui