

ENGLISH

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

1.1 Product identifiers

Product name: Selenite Cystine Broth
 Product Number: 610150 - 620150

1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health Services, scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®
 Address: Via Scozia, 64026 - Roseto degli Abruzzi (TE)
 Telephone number: 085/8930745
 Fax number: 085/8930330
 E-mail address: liofilchem@liofilchem.com

1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute Tox. 2, Acute toxicity, Oral (Category 2); H300
 Acute Tox. 4, Acute toxicity, Inhalation (Category 4); H332
 Skin. Sens. 1, Skin sensitisation (Category 1); H317
 Aquatic Chronic 3, Chronic aquatic toxicity (Category 3); H412

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word

Danger

Hazard statement(s)

H300	Fatal if swallowed.
H332	Harmful if inhaled
H317	May cause an allergic skin reaction
H412	Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P261	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 a well-ventilated area
P272	Contaminated work clothing should not be allowed out of the workplace
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor
P302+P352	IF ON SKIN: Wash with plenty of water
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell
P330	Rinse mouth
P333+P313	If skin irritation or rash occurs: Get medical advice
P363	Wash contaminated clothing before reuse
P405	Store locked up

Supplemental Hazard Statements - none

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.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures:

Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
Sodium selenite					
10102-18-8	233-267-9	034-003-00-3	-	17.4 %	Acute Tox. 2; H300 Acute Tox. 2; H330 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Additional Information:

For full text of H-statements, 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: Avoid breathing dust. If breathed in, move person into fresh air and immediately call a POISON CENTER or a doctor. If not breathing, give artificial respiration. Consult a physician

In case of skin contact: Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Consult a physician

In case of eye contact: After eye contact: rinse out with plenty of water.

If swallowed: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available.

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Do not inhale.

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. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin. Provide appropriate exhaust ventilation at places where dust is formed. Do not inhale the mixture.

Do not eat, drink or smoke in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

7.2 Conditions for safe storage, including any incompatibilities

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

Recommended storage temperature, see the product label.

7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

- **Sodium selenite (CAS no. 10102-18-8)**

TWA 0.2 mg/m³

Long-term systemic effects (workers – inhalation) 0.11 mg/m³

Long-term systemic effects (workers – dermal) 15.33 mg/kg bw/day

Long-term systemic effects (consumers – inhalation) 0.03 mg/m³

Long-term systemic effects (consumers – dermal) 9.42 mg/ kg bw/day

Long-term systemic effects (consumers – oral) 9.42 mg/ kg bw/day

Predicted no-effect concentration (PNEC) according to Regulation (EC) No. 1907/2006:

- Fresh water: 5.85 µg/l
- Sea water: 4.38 µg/l
- Sewage treatment plant: 3.28 µg/l
- Freshwater sediment: 18 mg/kg dry weight
- Marine sediment: 13.6 mg/kg dry weight
- Soil: 0.22 mg/kg dry weight

8.2 Exposure controls

Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

Environmental exposure control

For information relating to environmental precautions, see chapter 6.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form Powder
Color Light beige

Odour

No data available

pH

7.0 ± 0.2 - 23.0 g/l - 25 °C

Melting point/ freezing point

No data available

Initial boiling point and boiling range

No data available

Evaporation rate

No data available

Flammability (solid, gas)

No data available

Upper / lower flammability or explosive limits

No data available

Flash point

No data available

Auto-ignition temperature

No data available

Decomposition temperature

No data available

Vapour pressure

No data available

Vapour density

No data available

Relative density

No data available

Water solubility

Soluble

Partition coefficient: n-octanol/water

No data available

Viscosity

No data available

Explosive properties

Product is not explosive

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

Exothermic reaction with Strong oxidizing agents, strong reducing agents, Strong acids, bases

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

- **Sodium selenite (CAS no. 10102-18-8)**
Acute oral toxicity: LD50 (Rat, male): 7 mg/kg
Acute inhalation toxicity: LC50 (Rat): 0.052 mg/l / 4h
- **Mixture**
5 mg/kg < STAmix (Oral) < 50 mg/kg
1,0 mg/m³ < STAmix (In.) < 5,0 mg/m³

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: No data available

Carcinogenicity: no data available

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional information: RTECS: no data available

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

- **Sodium selenite (CAS no. 10102-18-8)**
Toxicity to daphnia and other aquatic invertebrates: LC50 (Daphnia magna (Large water flea)): 0.55 mg/l – 48 h
Toxicity to algae/aquatic plants: EC50 (Pseudokirchneriella subcapitata (chlorophyceous algae)): 2.9 mg/l – 96 h
Toxicity to daphnia and other aquatic invertebrates: NOEC: 0.07 mg/l – 28 days
Acute environmental toxicity: Very toxic to aquatic organisms.
Chronic toxicity for the aquatic environment: Very toxic to aquatic organisms with long-lasting effects duration.

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

12.6 Endocrine disrupting properties

The mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

none

SECTION 13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Product**

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION**14.1 UN number**

ADR/RID: UN 3283 IMDG: UN 3283 IATA: UN 3283

14.2 UN proper shipping name

ADR/RID: SELENIUM COMPOUND, SOLID, N.O.S. (sodium selenite)

IMDG: SELENIUM COMPOUND, SOLID, N.O.S. (sodium selenite)

IATA: SELENIUM COMPOUND, SOLID, N.O.S. (sodium selenite)

14.3 Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packaging group

ADR/RID: II IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: no IMDG: no IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15. REGULATORY INFORMATION

This safety datasheet complies with:

- the requirements of European Parliament and of the Council Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Commission Regulation (EU) No. 453/2010 amending Commission Regulation (EC) No. 1907/2006.
- the requirements of Commission Regulation EU 2020/878

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

The product is classified, coded and labeled in accordance with EU Regulation on Hazardous Materials.

15.2 Chemical Safety Assessment

This product has not been made a chemical safety assessment.

16. OTHER INFORMATION

Text of H code(s) mentioned in Section 3

Acute Tox. 2; Acute toxicity, Category 2
Skin Irrit. 2; Skin irritation, Category 2
Eye Irrit. 2; Eye irritation, Category 2
Skin Sens. 1; Skin sensitization, Category 1
Aquatic Acute 1 Short-term (acute) danger for the aquatic environment, Category 1
Aquatic Chronic 1; Long-term (chronic) danger for the aquatic environment, Category 1
H300 Fatal if swallowed.
H330 Fatal if inhaled.
H315 Causes skin irritation
H319 Causes serious eye irritation
H317 May cause an allergic skin reaction
H400 Very toxic to aquatic organisms
H410 Very toxic to aquatic organisms with long-lasting effects

Abbreviations and acronyms

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure

Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

Further information

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

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