

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

1.1. Product identifier

Product form : Mixture
Trade name : Selenite Broth
Product code : NCM0172
Type of product : Food Safety -- [Food Safety]
Part Number(s) : NCM0172|400000860|700003476|NCM0712A

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals
Scientific research and development

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Neogen Corporation
620 Leshler Place
48912 Lansing – Michigan
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.4. Emergency telephone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to GB CLP (SI 2019:720 as amended)

Acute toxicity (oral), Category 2	H300
Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin sensitisation, Category 1	H317
Specific target organ toxicity – Repeated exposure, Category 1	H372
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to GB CLP (SI 2019:720 as amended)

Hazard pictograms (GHS UK) :



GHS06

GHS08

GHS09

Signal word (GHS UK) : Danger
Contains : Sodium selenite

Selenite Broth

Safety Data Sheet

According to REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Hazard statements (GHS UK)	: H300 - Fatal if swallowed. H317 - May cause an allergic skin reaction. H332 - Harmful if inhaled. H372 - Causes damage to organs through prolonged or repeated exposure. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (GHS UK)	: P260 - Do not breathe dust, fume, gas, mist, vapours or spray. P264 - Wash hands, forearms and face 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.

2.3. Other hazards

Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of UK REACH regulation, in accordance with Annex XIII	Sodium selenite (10102-18-8)
Substance(s) not meeting the vPvB criteria of UK REACH regulation, in accordance with Annex XIII	Sodium selenite (10102-18-8)

Results of Endocrine Disruptor assessment

Component	
Substance(s) not considered as endocrine disrupting. They are not included in the list established in accordance with Article 59(1) of UK REACH for having endocrine disrupting properties, nor identified as having endocrine disrupting properties in accordance with the criteria set out in GB BPR and GB PPP	Sodium selenite(10102-18-8)

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GB CLP (SI 2019:720 as amended)
Sodium selenite substance with workplace exposure limit(s)	CAS-No.: 10102-18-8 EC-No.: 233-267-9	15 – 25	Acute Tox. 2 (Oral), H300 (ATE=7 mg/kg bodyweight) Acute Tox. 3 (Inhalation), H331 (ATE=0.28 mg/l/4h) Acute Tox. 2 (Inhalation:dust,mist), H330 (ATE=0.28 mg/l/4h) Skin Sens. 1, H317 STOT RE 1, H372 Aquatic Chronic 1, H410

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

No additional information available

Selenite Broth

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

No additional information available

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

No additional information available

7.2. Conditions for safe storage, including any incompatibilities

Storage temperature : 2 – 30 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Selenite Broth

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Sodium selenite (10102-18-8)

United Kingdom - Occupational Exposure Limits

WEL TWA (OEL TWA)	0.1 mg/m ³
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8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

No additional information available

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Colour	: Off-white.
Odour	: Characteristic.
Odour threshold	: Not available
pH	: 6.8 – 7.2
pH solution	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flash point	: Not applicable
Flammability	: Not available
Explosive limits	: Not applicable
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Relative vapour density at 20°C	: Not applicable
Relative density	: Not available
Density	: Not available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available

Selenite Broth

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
Viscosity, kinematic	: Not applicable
Explosive properties	: Not available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Fatal if swallowed.
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Inhalation:dust,mist: Harmful if inhaled.

Selenite Broth	
ATE UK (oral)	37.227 mg/kg bodyweight
ATE UK (dust, mist)	1.489 mg/l/4h

Sodium selenite (10102-18-8)	
LD50 oral rat	7 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 7 - 10 day(s))
LD50 oral	10.5 mg/kg
LC50 Inhalation - Rat	0.05 – 0.51 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Read-across, Inhalation (dust), 14 day(s))
LC50 Inhalation - Rat (Dust/Mist)	0.052 – 0.51 mg/l Source: ECHA

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 6.8 – 7.2
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Sodium selenite (10102-18-8)	
pH	No data available in the literature

Selenite Broth

Safety Data Sheet

According to REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 6.8 – 7.2

Sodium selenite (10102-18-8)

pH	No data available in the literature
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Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Sodium selenite (10102-18-8)

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

Sodium selenite (10102-18-8)

LOAEL (animal/female, F0/P)	0.1 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:
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STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Sodium selenite (10102-18-8)

NOAEL (oral, rat, 90 days)	0.4 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
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STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Sodium selenite (10102-18-8)

Viscosity, kinematic	Not applicable (solid)
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Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

Sodium selenite (10102-18-8)

LC50 - Fish [1]	3300 µg/l (ASTM, 96 h, Morone saxatilis, Static system, Brackish water, Experimental value, Lethal)
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LC50 - Fish [2]	5190 µg/l Test organisms (species): Pimephales promelas
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EC50 - Crustacea [1]	1.48 mg/l
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EC50 72h - Algae [1]	44240 µg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)
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ErC50 algae	44.24 mg/l Source: EHCA
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NOEC chronic fish	0.046 mg/l
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12.2. Persistence and degradability

Selenite Broth

Persistence and degradability	Not rapidly degradable
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Selenite Broth

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Sodium selenite (10102-18-8)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Sodium selenite (10102-18-8)	
BCF - Other aquatic organisms [1]	400 (Invertebrata)
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Sodium selenite (10102-18-8)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Results of PBT and vPvB assessment

Component	
Sodium selenite (10102-18-8)	This substance does not meet the PBT criteria of UK REACH regulation, annex XIII This substance does not meet the vPvB criteria of UK REACH regulation, annex XIII

12.6. Other adverse effects

Ozone : Not classified (Based on available data, the classification criteria are not met)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

HP Code : HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP12 - "Release of an acute toxic gas:" waste which releases acute toxic gases (Acute Tox. 1, 2 or 3) in contact with water or an acid
HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.
HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 3283	UN 3283	UN 3283	UN 3283	UN 3283

Selenite Broth

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

ADR	IMDG	IATA	ADN	RID
14.2. UN proper shipping name				
SELENIUM COMPOUND, SOLID, N.O.S. (Sodium selenite)	SELENIUM COMPOUND, SOLID, N.O.S. (Sodium selenite)	Selenium compound, solid, n.o.s. (Sodium selenite)	SELENIUM COMPOUND, SOLID, N.O.S. (Sodium selenite)	SELENIUM COMPOUND, SOLID, N.O.S. (Sodium selenite)
Transport document description				
UN 3283 SELENIUM COMPOUND, SOLID, N.O.S. (Sodium selenite), 6.1, II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 3283 SELENIUM COMPOUND, SOLID, N.O.S. (Sodium selenite), 6.1, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3283 Selenium compound, solid, n.o.s. (Sodium selenite), 6.1, II, ENVIRONMENTALLY HAZARDOUS	UN 3283 SELENIUM COMPOUND, SOLID, N.O.S. (Sodium selenite), 6.1, II, ENVIRONMENTALLY HAZARDOUS	UN 3283 SELENIUM COMPOUND, SOLID, N.O.S. (Sodium selenite), 6.1, II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
6.1	6.1	6.1	6.1	6.1
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: T5
Special provisions (ADR)	: 274, 563
Limited quantities (ADR)	: 500g
Excepted quantities (ADR)	: E4
Packing instructions (ADR)	: P002, IBC08
Special packing provisions (ADR)	: B4
Mixed packing provisions (ADR)	: MP10
Portable tank and bulk container instructions (ADR)	: T3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAH, L4BH
Tank special provisions (ADR)	: TU15, TE19
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V11
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13, CV28
Special provisions for carriage - Operation (ADR)	: S9, S19
Hazard identification number (Kemler No.)	: 60
Orange plates	:

Tunnel restriction code (ADR)	: D/E
EAC code	: 2X

Selenite Broth

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Transport by sea

Special provisions (IMDG)	: 274
Limited quantities (IMDG)	: 500 g
Excepted quantities (IMDG)	: E4
Packing instructions (IMDG)	: P002
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B21, B4
Tank instructions (IMDG)	: T3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-A
Stowage category (IMDG)	: B
Properties and observations (IMDG)	: Toxic if swallowed, by skin contact or by inhalation.

Air transport

PCA Excepted quantities (IATA)	: E4
PCA Limited quantities (IATA)	: Y644
PCA limited quantity max net quantity (IATA)	: 1kg
PCA packing instructions (IATA)	: 669
PCA max net quantity (IATA)	: 25kg
CAO packing instructions (IATA)	: 676
CAO max net quantity (IATA)	: 100kg
Special provisions (IATA)	: A3, A5
ERG code (IATA)	: 6L

Inland waterway transport

Classification code (ADN)	: T5
Special provisions (ADN)	: 274, 563, 802
Limited quantities (ADN)	: 500 g
Excepted quantities (ADN)	: E4
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 2

Rail transport

Classification code (RID)	: T5
Special provisions (RID)	: 274, 563
Limited quantities (RID)	: 500g
Excepted quantities (RID)	: E4
Packing instructions (RID)	: P002, IBC08
Special packing provisions (RID)	: B4
Mixed packing provisions (RID)	: MP10
Portable tank and bulk container instructions (RID)	: T3
Portable tank and bulk container special provisions (RID)	: TP33
Tank codes for RID tanks (RID)	: SGAH, L4BH
Special provisions for RID tanks (RID)	: TU15
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W11
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28, CW31
Colis express (express parcels) (RID)	: CE9
Hazard identification number (RID)	: 60

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

Selenite Broth

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

SECTION 15: Regulatory information

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

15.1.1. National regulations

UK REACH Annex XVII (Restriction List)

This product contains no substance(s) listed on UK REACH Annex XVII (Restriction List) equal to or above the level of SDS disclosure

UK REACH Annex XIV (Authorisation List)

This product contains no substance(s) listed on UK REACH Annex XIV (Authorisation List) equal to or above the 0.1% level of disclosure

UK REACH Candidate List (SVHC)

This product contains no substance(s) listed on the UK REACH Candidate List (SVHC) above the 0.1% level of disclosure

GB PIC Regulation (Prior Informed Consent)

This product contains no substance(s) listed on the GB PIC List equal to or above the level of SDS disclosure

POP Regulation (Persistent Organic Pollutants)

This product contains no substance(s) listed on the GB POP List equal to or above the level of SDS disclosure

Ozone Regulation (S.I. No. 168 of 2015)

This product contains no substance(s) listed on the GB Ozone Depletion List equal to or above the level of SDS disclosure

Control of Poisons and Explosives Precursors Act

This product contains no substance(s) listed as a reportable poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a reportable explosive precursor on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This substance is not listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations

Drug Precursors Regulation (EC 273/2004)

This product contains no substance(s) listed on the GB Drug Precursors List equal to or above the level of SDS disclosure

15.1.2. Other Information

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
H300	Fatal if swallowed.
H317	May cause an allergic skin reaction.

Selenite Broth

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Full text of H- and EUH-statements:	
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Safety Data Sheet (SDS), UK

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.