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

1.1 Product identifier

Trade name

SODIUM SELENITE

Substance name sodium selenite

REACH registration no. 01-2119985427-23-0000

Identification numbers

CAS no. 10102-18-8 EC no. 233-267-9 Index no. 034-003-00-3

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

Relevant identified uses of the substance or mixture

Mineral nutrient source for feedstuffs, stain and decolourant for glass

Uses advised against

No data available.

Reference to relevant exposure scenarios

For an overview of the exact titles of the relevant exposure scenarios please refer to section 16 of this SDS.

1.3 Details of the supplier of the safety data sheet

Address

RETORTE GmbH Selenium Chemicals and Metals

Sulzbacher Str. 45

D-90552 Röthenbach a.d. Pegnitz

Telephone no. +49 (0)911 95 33 74 - 0 Fax no. +49 (0)911 57 66 59

Information provided by / telephone

+49 (0)911 95 33 74 - 0

Advice on Safety Data Sheet

selen@retorte.de

1.4 Emergency telephone number

+49 (0)152 09 87 2013, +49 (0)173 387 35 93

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Acute Tox. 2; H300

Acute Tox. 2; H330

Aquatic Chronic 2; H411

Eye Irrit. 2; H319

Skin Irrit. 2; H315

Skin Sens. 1; H317

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3 and 4 of Annex I to CLP.



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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Product identifier

10102-18-8 (sodium selenite)

Hazard pictograms





Signal word

Danger

Hazard statement(s)

H300+H330 Fatal if swallowed or if inhaled

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Hazard statements (EU)

EUH031 Contact with acids liberates toxic gas.

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P330 Rinse mouth.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents/container to a facility in accordance with

local/regional/national/international regulations.

2.3 Other hazards

PBT assessment

The product is not considered to be a PBT.

vPvB assessment

The product is not considered to be a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical characterization

Substance name sodium selenite
Formula Na2SeO3
Molecular weight 172.94

Identification numbers

CAS no. 10102-18-8 EC no. 233-267-9 Index no. 034-003-00-3

3.2 Mixtures

Not applicable. The product is not a mixture.



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SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. In case of accident or if you feel unwell, seek medical advice immediately. If the patient is likely to become unconscious, place and transport in stable sideways position.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air. Irregular breathing/no breathing: artificial respiration. Call a doctor immediately.

After skin contact

When in contact with the skin, clean with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse out mouth and give plenty of water to drink. Administer vitamin C as antidote and cause immediate vomiting. Toxic effect is superior to acid effect.

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: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

Unsuitable extinguishing media

Water

5.2 Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3 Advice for firefighters

The product is highly hygroscopic. Use self-contained breathing apparatus. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Remove persons to safety. Avoid dust formation. Use breathing apparatus if exposed to vapours/dust/aerosol.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically. Send in suitable containers for recovery or disposal.

6.4 Reference to other sections

No data available.



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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation at the work area (local exhaust ventilation, if necessary). Avoid the formation and deposition of dust. If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Do not inhale dust. Store work clothing separately. Avoid contact with eyes and skin. Provide eye wash fountain in work area. Have emergency shower available.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from atmospheric moisture and water. Product is hygroscopic.

Requirements for storage rooms and vessels

Store product in closed containers. Keep only in the original container.

Advice on storage assembly

Do not store together with foodstuffs. Keep away from water. Do not store together with: Metals which are attacked by an alkaline medium. Oxidizing agents

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.		EC no.	
1	sodium selenite	10102-18-8		233-267-9	
	List of approved workplace exposure limits (WELs) / EH40				
	Selenium compounds, except hydrogen selenide				
	TWA	0.1	mg/m³		

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name	CAS / EC no				
	Route of exposure	Value				
1	sodium selenite			10102-18-8		
				233-267-9		
	dermal	Long term (chronic)	systemic	15.33 mg/kg/day		
	inhalative	Long term (chronic)	systemic	0.11 mg/m³		

DNEL value (consumer)

No	Substance name			CAS / EC no	0		
	Route of exposure						
1	sodium selenite		10102-18-8				
	oral	Long term (chronic)	systemic	9.42	μg/kg/day		
	dermal	Long term (chronic)	systemic	9.42	mg/kg/day		
	inhalative	Long term (chronic)	systemic	0.033	mg/m³		



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PNEC values

No	Substance name	Substance name		
	ecological compartment	Туре	Value	
1	sodium selenite		10102-18-8	
			233-267-9	
	water	fresh water	5.85	μg/l
	water	marine water	4.38	μg/l
	water	fresh water sediment	18	mg/kg
	with reference to: dry weight			
	water	marine water sediment	13.6	mg/kg
	with reference to: dry weight			
	water	Aqua intermittent	12	μg/l
	soil	-	0.22	mg/kg dry
				weight
	sewage treatment plant	-	3285	μg/l

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. Short term: filter apparatus, Filter P3

Eye / face protection

Tightly fitting safety glasses (EN 166).

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Check in any case suitability of protective glove for the specific workplace conditions (e.g. mechanical resistance, product compatibility, antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves.

Appropriate Material

Neoprene category III, EN 374 AKL, EN388:2003 3121

Other

No data available

Acid-resistant protective clothing

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour		
Powder		
white		
Odour		
odourless		
Odour threshold		

pH value				
Value	9	- 10		
Reference temperature		20	°C	
Concentration		10	g/l	

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Boiling point / boiling range					
No data available					
Melting point / melting range					
Value				710	°C
Source	CSR				
Remarks	Decoi	mposition	1		
Decomposition point / decomposition range					
No data available					
Flash point					
Not applicable					
Auto-ignition temperature					
No data available					
Oxidising properties					
not oxidizing					
Method	440/2	008/EC,	A.17		
Explosive properties					
Not applicable					
Flammability (solid, gas)					
The product is NOT highly flammable according	to Regi	ulation (E	G) N	r. 440/2	2008, method EC A.10 (flammability,
solids)		,			
Source	CSR				
Lower flammability or explosive limits					
No data available					
Upper flammability or explosive limits					
No data available					
Vapour pressure					
Not applicable					
Vapour density					
No data available					
Evaporation rate					
No data available					
Relative density Value				3.1	
				J. 1	
Density Value				3.95	g/cm³
Reference temperature				3.95 15	°C
Bulk density Value	annr	1000		1200	kg/m³
	appr.	1000		1200	Ng/III
Solubility in water					
Value Reference temperature				898 25	g/l °C
Source	CSR			20	
	<u> </u>				



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Solubility(ies)
No data available

Partition coefficient: n-octanol/water

No data available

Viscosity
No data available

9.2 Other information

Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

10.4 Conditions to avoid

The product is highly hygroscopic. Aqueous solutions react alkaline.

10.5 Incompatible materials

Metals which are attacked by an alkaline medium. Oxidizing agents

10.6 Hazardous decomposition products

At strong heating, decomposition under selenium dioxide formation may occur.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity						
No	Substance name		CAS no.	EC no.		
1	sodium selenite		10102-18-8	233-267-9		
LD5	0		7	mg/kg bodyweight		
Spe	cies	rat				
Sou	rce	CSR				

Acute dermal toxicity

No data available

Acu	Acute inhalational toxicity					
No	Substance name	CAS	no.		EC no.	
1	sodium selenite	1010	10102-18-8 233-267-9			
LC5	0	0.052	-	0.51	mg/l	
Dura	ation of exposure			4	h	
Stat	e of aggregation	Dust				
Spe	cies	rat				
with reference to		Disodium selenate				
Met	hod	OECD 403				
Sou	rce	CSR				

Skin	Skin corrosion/irritation						
No	Substance name	CAS no.	EC no.				
1	sodium selenite	10102-18-8	233-267-9				
Meth	nod	OECD 439					
Sour	rce	CSR					
Eval	uation	irritant					



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Seri	Serious eye damage/irritation						
No	Substance name	CAS no.	EC no.				
1	sodium selenite	10102-18-8	233-267-9				
Meth	nod	OECD 437					
Soul	rce	CSR					
Evaluation		irritant					
Eval	uation/classification	Based on available data, the classification	criteria are met.				

Res	piratory or skin sensitisation		
No	Substance name	CAS no.	EC no.
1	sodium selenite	10102-18-8	233-267-9
Rou	te of exposure	Skin	
Eval	uation/classification	Based on available data, the classification	n criteria are not met.

Germ cell mutagenicity No data available

Reproduction toxicity

No data available

Carcinogenicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 Toxicity

Toxi	city to fish (acute)			
No	Substance name	CAS no.		EC no.
1	sodium selenite	10102-18-8		233-267-9
LC5	0		2060	μg/l
Dura	ation of exposure		96	h
Spec	cies	Pimephales promelas		
with	reference to	Se		
Soul	rce	CSR		

Toxi	icity to fish (chronic)			
No	Substance name	CAS no.		EC no.
1	sodium selenite	10102-18-8		233-267-9
NOE	EC .		330	μg/l
Dura	ation of exposure		60	day(s)
Spec	cies	Lepomis macrochirus		
with	reference to	Se		
Soul	rce	CSR		

Toxi	icity to Daphnia (acute)				
No	Substance name	CAS n	10.	EC no.	
1	sodium selenite	10102	-18-8	233-267-9	
EC5	0		550	μg/l	
Dura	ation of exposure		48	h	
Spec	cies	Daphnia magna			
with	reference to	Se			
Soul	rce	CSR			



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Tox	icity to Daphnia (chronic)				
No	Substance name	CAS no.		EC no.	
1	sodium selenite	10102-18-8		233-267-9	
NOE	C		70	μg/l	
Dura	ation of exposure		28	day(s)	
Spe	cies	Daphnia magna			
Meth	nod	OECD 211			
Sou	rce	CSR			

Toxicity to algae (acute)

No data available

Tox	Toxicity to algae (chronic)			
No	Substance name	CAS no.		EC no.
1	sodium selenite	10102-18-8		233-267-9
NOE	EC .		1030	μg/l
Dura	ation of exposure		10	day(s)
Spe	cies	Anabaena flos-aquae		
Source CSR		CSR		

Bacteria toxicity	
No data available	

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

Results of PBT and vPvB assessment		
PBT assessment	The product is not considered to be a PBT.	
vPvB assessment	The product is not considered to be a vPvB.	

12.6 Other adverse effects

No data available.

12.7 Other information

Other information
Do not discharge into the drains or waters and do not store on public depositories.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of in agreement with the regional waste disposal company.



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SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class 6.1
Classification code T5
Packing group I
Hazard identification no. 66
UN number UN2630
Technical name SELENITES
Danger releasing substance sodium selenite

Tunnel restriction code C/E Label 6.1

Environmentally hazardous Symbol "fish and tree"

substance mark

14.2 Transport IMDG

Class 6.1 Packing group I

UN number UN2630
Proper shipping name SELENITES
Danger releasing substance sodium selenite
EmS F-A+S-A

Label 6.1

Marine pollutant mark Symbol "fish and tree"

14.3 Transport ICAO-TI / IATA

Class 6.1 Packing group I

UN number UN2630
Proper shipping name Selenites
Danger releasing substance sodium selenite

Label 6.1

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

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

Not relevant



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SECTION 15: Regulatory information

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

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

In accordance with the Reach regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.

REACH candidate list of substances of very high concern (SVHC) for authorisation

In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list").

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The substance is not subject to the provisions of annex XVII (restriction entries) of the Reach regulation (EC) 1907/2006

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category:

E2, H2

If the properties of the substance/product give rise to more than one classification, for the purposes of 2012/18/UE, the lowest qualifying quantities set out in Part 1 and Part 2 of Annex I shall apply.

Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H300 Fatal if swallowed. H330 Fatal if inhaled.

List of existing exposition scenarios

ES001 Formulation and (re)packing of substance and mixtures - industrial use

ES002 Use as intermediate - industrial use

ES003 Use as additive in glass manufacture - industrial use

ES004 Use in articles - consumer use ES005 Use in fertilisers - professional use

ES006 Fertilizer - consumer use

ES007 Use as additive in bio gas reactors - professional use

Department issuing safety data sheet

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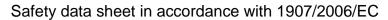
This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.





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Prod-ID 13599