

Safety Data Sheet

#19025510 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Sodium selenate, anhydrous	13410-01-0	Na ₂ SeO ₄	10	04 Sep 2026

SECTION 1

Identification

1.1 Product identifier

Product name Sodium selenate, anhydrous

CAS number 13410-01-0

EC / EINECS number 236-501-8

Chemical formula Na₂SeO₄

Molecular weight 188.94

SMILES [Na].O=[Se](=O)(O)O

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

For research use, laboratory use and manufacture of chemicals only. Not for human or veterinary use.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Acute Tox. 1 or Acute Tox. 2; H300

Skin Irrit. 2; H315

Acute Tox. 1 or Acute Tox. 2; H330

STOT RE 2; H373

Aquatic Acute 1; H400

Aquatic Chronic 1; H410

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
------	------------------

H300	Fatal if swallowed
H315	Causes skin irritation
H330	Fatal if inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

CODE	PRECAUTIONARY STATEMENT
------	-------------------------

P260	Do not breathe dust/fume/gas/mist/vapours/spray
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P302+P352	IF ON SKIN: Wash with soap and water
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

2.3 Other hazards

Does not contain components considered to have endocrine-disrupting properties. Does not meet PBT or vPvB criteria under REACH Annex XIII.

SECTION 3

Composition / information on ingredients**3.1 Substances**

Name	Sodium selenate, anhydrous
CAS number	13410-01-0
EC number	236-501-8
Concentration / purity	c. 100% Sodium selenate, anhydrous (CAS: 13410-01-0): H300, H315, H330, H373, H400, H410
Classification according to Regulation (EC) No 1272/2008	Acute Tox. 1 or Acute Tox. 2; H300 Skin Irrit. 2; H315 Acute Tox. 1 or Acute Tox. 2; H330 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Hazard statements	H300, H315, H330, H373, H400, H410
Acute toxicity estimate (ATE)	<i>No data available</i>
Impurities / stabilising additives	None

SECTION 4

First-aid measures**4.1 Description of first aid measures**

Inhalation	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
Skin contact	Wash with plenty of water. Continue to rinse for at least 15 minutes and seek medical attention.
Eye contact	Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.
Ingestion	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

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 For this substance/mixture no limitations of extinguishing agents are given.

Unsuitable extinguishing media None known

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

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.

6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3 Methods and material for containment and cleaning up

Collect spillage with shovel, broom or the like.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs.

Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product.

Remove contaminated clothing and launder thoroughly before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature Ambient

Conditions for safe storage (incompatibilities) Hygroscopic. Store under inert gas.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL) UK - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020.
STEL: 0.3 mg/m³ 15 min
TWA: 0.1 mg/m³ 8 hr

DNEC/PNEC data

DNEC:
Chronic effects systemic (Dermal): 16.73 mg/kg bw/day
Chronic effects systemic (Inhalation): 0.12 mg/m³

PNEC:
Fresh water: 6.38 µg/L
Fresh water sediment: 19.7 mg/kg sediment dw
Water Intermittent: 6.38 µg/L
Microorganisms in sewage treatment: 10 mg/L
Soil (Agriculture): 0.105 mg/kg soil dw
Marine water: 4.09 µg/L
Marine water sediment: 12.6 mg/kg sediment dw
Food chain: 2.39 mg/kg food

8.2 Exposure controls

Eye / face protection Safety glasses
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins.

Respiratory protection Self-contained breathing apparatus
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection No data available

Environmental exposure controls No data available

SECTION 9

Physical & chemical properties

9.1 Information on basic physical and chemical properties

Appearance / physical state Crystalline solid
DERIVED FROM: LITERATURE

Colour White
DERIVED FROM: LITERATURE

Odour	Odourless DERIVED FROM: LITERATURE
Melting / freezing point	<i>Not applicable</i>
Boiling point	<i>Not applicable</i>
Flammability	<i>No data available</i>
Lower and upper explosion limit	<i>No data available</i>
Flash point	<i>Not applicable</i>
Auto-ignition temperature	<i>Not applicable</i>
Decomposition temperature	<i>No data available</i>
pH	5.5-7.5 DERIVED FROM: LITERATURE
Acidity	Neutral DERIVED FROM: LITERATURE
Kinematic viscosity	<i>No data available</i>
Solubility	<i>Not applicable</i>
Partition coefficient n-octanol/water (log value)	<i>Not applicable</i>
Vapour pressure	<i>Not applicable</i>
Density (g/mL)	3.213 g/mL DERIVED FROM: LITERATURE
Relative vapour density	<i>No data available</i>
Particle characteristics	<i>No data available</i>

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under the prescribed storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Avoid moisture

10.5 Incompatible materials

Strong oxidising agents. Strong acids

10.6 Hazardous decomposition products

See section 5

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD50 / LC50)	Information on hazard classes as defined in Regulation (EC) No 1272/2008 LD50 Oral - Rat - 1.6 mg/kg LC50 Inhalation - Rat - male and female - 4 h - > 0.052 - < 0.51 mg/l - dust/mist Ref: External SDS
Skin corrosion / irritation	Causes skin irritation
Eye corrosion / irritation	Causes serious eye irritation
Respiratory / skin sensitisation	Not classified
Carcinogenicity	Not classified
Mutagenicity	Not classified
Reproductive toxicity	Not classified
STOT (single / repeated exposure)	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not classified

11.2 Information on other hazards

Not Classified

SECTION 12

Ecological information

12.1 Toxicity

flow-through test LC50 - Pimephales promelas (fathead minnow) - 2.06 mg/l - 96 h
semi-static test EC50 - Daphnia magna (Water flea) - 0.55 mg/l - 48 h
Growth inhibition EC50 - Ankistrodesmus falcatus - 0.033 mg/l - 14 d
static test NOEC - Lemna minor (duckweed) - 0.083 mg/l - 14 h
static test EC50 - activated sludge - > 3,200 mg/l - 3 h
flow-through test NOEC - Lepomis macrochirus - 0.33 mg/l - 60 d
flow-through test NOEC - Hyalella azteca (Amphipod) - 1 mg/l - 24 d
Ref: External SDS

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Pimephales promelas (fathead minnow) - 8 Weeks
- 10.7 µg/l(Sodium selenate)
Bioconcentration factor (BCF): 153.8
Ref: External SDS

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture does not meet the PBT criteria of REACH Annex XIII. This substance/mixture does not meet the vPvB criteria of REACH Annex XIII

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

SECTION 14

Transport information

14.1 UN number or ID number

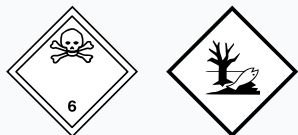
UN2630

14.2 UN proper shipping name

SELENATES

14.3 Transport hazard class(es)

6.1



14.4 Packing group

I

14.5 Environmental hazards

Marine pollutant

14.6 Special precautions for user

Special precautions for user	Handle in accordance with good industrial hygiene and safety practice
Transport category	1
Tunnel code	(C/E)
Packing instruction (ADR)	P002
Packing instruction (IMDG)	P002

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences) *No data available*

REACH code Y110

ECHA notification *Not applicable*

15.2 Chemical safety assessment

Not applicable

SECTION 16

Other information

Revision notes / other information

Previous SDS ver. 1 published 17th March 2022
Hazard classification and labelling according to Regulation (EC) 1272/2008
All eye/face protection should comply with EN ISO 16321-1:2022
Respiratory equipment: Reusable air-purifying respirator (APR)
Filter Type: ABEK
Standard: EN 14387
National Regulations:
-Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances
Other regulations, limitations and legal regulations:
-Directive 94/33/EC- The protection of young people at work

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.