

SAFETY DATA SHEET

Preparation Date: 8/4/2017

Revision Date: 8/4/2017

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: S1430
Product Name: SODIUM SELENATE, DECAHYDRATE

Other means of identification

Synonyms: Selenic acid, disodium salt, decahydrate
CAS #: 10102-23-5
RTECS # VS6720000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000.

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300

Contact Person: Martin LaBenz (West Coast)

Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 1
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2

Label elements

Danger

Hazard statements

Fatal if swallowed
 Toxic if inhaled
 Causes skin irritation
 May cause respiratory irritation
 May cause damage to organs through prolonged or repeated exposure



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Wear protective gloves
 Use only outdoors or in a well-ventilated area
 Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF ON SKIN: Wash with plenty of water
 Take off contaminated clothing and wash it before reuse
 If skin irritation occurs: Get medical advice/attention
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Sodium Selenate, Decahydrate	10102-23-5	100

4. FIRST AID MEASURES

First aid measures

General Advice:

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. First aider needs to protect himself. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Fatal if swallowed.

Most important symptoms and effects, both acute and delayed

Symptoms Ingestion may cause nausea, vomiting, and diarrhea. Pallor. May cause headache. It may affect the kidneys. May affect the liver. garlic breath. May cause metallic taste. Coughing and wheezing. Dyspnea (Shortness of breath and difficulty breathing). May cause central nervous system effects. It may affect the heart.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: No information available.

Specific hazards: No information available.

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Avoid dust formation. Do not ingest. Do not breathe vapors/dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Hygroscopic. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible Materials:

Oxidizing agents
Acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Sodium Selenate, Decahydrate	10102-23-5	0.2 mg/m ³ TWA (selenium compounds)	0.2 mg/m ³ TWA Se (selenium compounds)	0.2 mg/m ³ TWA Se (selenium compounds)	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec

Sodium Selenate, Decahydrate	10102-23-5	0.2 mg/m ³ TWA Se (selenium compounds)	0.1 mg/m ³ TWA Se (selenium compounds)	0.2 mg/m ³ TWA Se (selenium compounds)	0.2 mg/m ³ TWAEV Se (selenium compounds)
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Australia and Mexico

Components	CAS-No.	Australia	Mexico
Sodium Selenate, Decahydrate	10102-23-5	0.1 mg/m ³ TWA (selenium compounds)	0.2 mg/m ³ TWA (selenium compounds)

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:	Goggles or Safety glasses with side-shields
Skin and body protection:	Long sleeved clothing Gloves Chemical resistant apron
Respiratory protection:	Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid	Appearance: Crystalline solid. Crystals.	Color: White.
Odor: Odorless.	Taste No information available.	Formula: Na ₂ SeO ₄ ·10H ₂ O
Molecular/Formula weight: 369.09 g/mole	Flammability: No information available	Flashpoint (°C/°F): No information available.
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): 35 °C/95 °F	Decomposition temperature(°C/°F): 35 °C/95 °F
Boiling point/range(°C/°F): No information available	Bulk density: No information available	Density (g/cm³): No information available
Specific gravity: 1.6	pH: No information available	Vapor pressure @ 20°C (kPa): No information available
Evaporation rate:		

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No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

**Partition coefficient
(n-octanol/water):**
No information available

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Soluble in Water

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents
Reactive with acids

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Incompatible materials. Exposure to moisture. Exposure to moist air.

Incompatible Materials: Oxidizing agents
Acids

Hazardous decomposition products: No information available.

Other Information

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Toxicity

Component Information

Sodium Selenate, Decahydrate

CAS-No. 10102-23-5

LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

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LD50/oral/rat =
VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation.

Eye Contact: May cause eye irritation.

Inhalation Toxic by inhalation. Irritating to respiratory system. Symptoms may include coughing and wheezing, and shortness of breath. Other symptoms may include pulmonary edema, epistaxis, olfactory fatigue.

Ingestion Fatal if swallowed. Causes nausea, vomiting, hypermotility, diarrhea, garlic odor of breath. It may also affect the heart, liver (liver function tests impaired), and behavior/central nervous system (muscle weakness, irritability, fatigue, muscle contraction or spasticity, convulsions, lightheaded sensation, headache, tremors, coma, CNS depression) and cause muscle aches and pains. May cause metallic taste.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated ingestion can cause headache, nausea, vomiting, diarrhea, white streaks in the nails, pallor, loss of hair, skin rashes, garlic odor in breath, coated tongue, metallic taste in mouth. May also affect the spleen, blood (leukocytosis, anemia), behavior/central nervous system (nervousness and mood changes), liver, kidneys (tubular necrosis), heart (EKG changes).

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable	Australia - Prohibited
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						Carcinogenic Substances	Carcinogenic Substances
Sodium Selenate, Decahydrate	10102-23-5	Group 3 - Not Classifiable - Supplement 7 [1987] Monograph 9 [1975]	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)
Group 3 - Not classifiable as to its carcinogenicity to humans
NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.
STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.
Target Organs: Liver. Kidneys. Heart.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Sodium Selenate, Decahydrate	10102-23-5	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN2630
Proper Shipping Name: Selenates
Hazard Class: 6.1
Subsidiary Class: No information available
Packing group: I
Emergency Response Guide Number: 151
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: IB7, IP1, T6, TP33
Symbol(s): No information available
Description: UN2630, Selenates, 6.1, I

TDG (Canada)

UN-No: UN2630
Proper Shipping Name: Selenates
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
Marine Pollutant: No Information available
Description: UN2630, Selenates, 6.1, I

ADR

UN-No: UN2630
Proper Shipping Name: Selenates
Hazard Class: 6.1
Packing Group: I
Subsidiary Risk: No information available
Special Provisions: 274
Description: UN2630, Selenates, 6.1, I

IMO / IMDG

UN-No: UN2630
Proper Shipping Name: Selenates
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
Marine Pollutant: No information available
EMS: F-A
Special Provisions: 274
Description: UN2630, Selenates (SODIUM SELENATE, DECAHYDRATE), 6.1, I

RID

UN-No: UN2630
Proper Shipping Name: Selenates
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
Special Provisions: 274
Description: UN2630, Selenates, 6.1, I

ICAO

UN-No: UN2630
Proper Shipping Name: Selenates
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
Description: UN2630, Selenates, 6.1, I

Product code: S1430

Product name: SODIUM SELENATE,
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IATA

UN-No: UN2630
Proper Shipping Name: Selenates
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
ERG Code: 6L
Special Provisions No information available
Description: UN2630, Selenates, 6.1, I

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Sodium Selenate, Decahydrate</i>	10102-23-5	Not Listed	Not present	Not present	Not present	Not present	Present	Not present

U.S. Regulations*Sodium Selenate, Decahydrate***New Jersey RTK Hazardous Substance List:** sn 2347 (selenium compounds)**New Jersey (EHS) List:** SN 2347 500 lb TPQ**New Jersey - Discharge Prevention - List of Hazardous Substances:** Present (selenium compounds)**Pennsylvania RTK:** Environmental hazard (selenium compounds)**Pennsylvania RTK - Environmental Hazard List** Present (selenium compounds)**Minnesota - Hazardous Substance List:** Present (as Se) (selenium compounds)**California Directors List of Hazardous Substances:** Present (selenium compounds)**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.****Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Sodium Selenate, Decahydrate	10102-23-5	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>Sodium Selenate, Decahydrate</i>	10102-23-5	None	None	None	Selenium compounds	1.0 % de minimis concentration

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Sodium Selenate, Decahydrate	10102-23-5	Not Applicable	Not Applicable

Canada**Product code:** S1430**Product name:** SODIUM SELENATE, DECAHYDRATE**10 / 13**

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Sodium Selenate, Decahydrate
10102-23-5 (100)

WHMIS 2015 Hazard Classification
Specific target organ toxicity - Repeated exposure - Category 1:
H372 Causes damage to organs through prolonged or repeated exposure (based on all available data for selenium and selenium compounds and sodium selenate)

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

D1A Very toxic materials

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Sodium Selenate, Decahydrate	10102-23-5	Not Listed	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Sodium Selenate, Decahydrate	10102-23-5	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Sodium Selenate, Decahydrate	10102-23-5	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Sodium Selenate, Decahydrate	10102-23-5	Acute toxicity - Oral - Acute Tox. 3: H301 Toxic if swallowed. (Minimum classification, except Cadmium sulphoselenide and those specified elsewhere in this Annex); Acute toxicity - Inhalation - Acute Tox. 3: H331 Toxic if inhaled. (Minimum classification, except Cadmium sulphoselenide and those specified elsewhere in this Annex); Specific target organ toxicity - Repeated exposure - STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (No information to prove exclusion of certain routes of exposure; except Cadmium sulphoselenide and those specified elsewhere in this Annex); Hazardous to aquatic environment - acute hazard - Aquatic Acute 1: H400 Very toxic to aquatic life. (except Cadmium sulphoselenide and those specified elsewhere in this Annex); Hazardous to aquatic environment -

		chronic hazard - Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects. (except Cadmium sulphoselenide and those specified elsewhere in this Annex)034-002-00-8
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EU - CLP (1272/2008)

R-phrase(s)

R33 - Danger of cumulative effects.

R23/25 - Toxic by inhalation and if swallowed.

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S -phrase(s)

S28 - After contact with skin, wash immediately with plenty of water

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60 - This material and its container must be disposed of as hazardous waste.

S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

S20/21 - When using, do not eat, drink or smoke.

S 1/2 - Keep locked up and out of the reach of children.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Sodium Selenate, Decahydrate	10102-23-5	T; R23/25 R33 N; R50-53(except cadmium sulphoselenide and those specified elsewhere in the annex)	No information	S: (1/2)-20/21-28-45-60-6 1

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

T - Toxic

T



N



16. OTHER INFORMATION

Preparation Date: 8/4/2017
Revision Date: 8/4/2017
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no

responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet