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 CONTACT: +9122 28725393 /94/ 95 | EMAILID: CARE@SUVCHEM.COM

## MATERIAL SAFETY DATA SHEET (MSDS)

### SODIUM SELENATE AR

#### 1 - Chemical Product

Product Name: Sodium selenate  
 Synonym: Disodium selenate; Selenic acid, disodium salt.

CAS NO:13410-01-0

Product Coad: S0192000100

Molecular Formula: Na<sub>2</sub>O<sub>4</sub>Se  
 Molecular Weight: 188.94

#### 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
13410-01-0	Sodium selenate	ca. 100	236-501-8

Hazard Symbols: T N  
 Risk Phrases: 23/25 33 50/53

#### 3 - HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW** Toxic by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Potential Health Effects  
**Eye:** Causes severe eye irritation.  
**Skin:** Causes skin irritation. May be absorbed through the skin in harmful amounts. Chronic exposure to selenium may cause central nervous system effects, digestive tract disturbances, pallor, garlic breath,  
**Ingestion:** May be fatal if swallowed. Poison by ingestion. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. May cause cardiac abnormalities.  
**Inhalation:** Causes respiratory tract irritation. Irritation may lead to chemical pneumonitis and pulmonary edema. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count.  
**Chronic:** May cause reproductive and fetal effects. Chronic exposure to selenium may cause central nervous system effects, digestive tract disturbances, pallor, garlic breath, Laboratory experiments have resulted in mutagenic effects.

#### 4 - FIRST AID MEASURES

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.  
**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.  
**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.  
 Notes to Physician:

#### 5 - FIRE FIGHTING MEASURES

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.  
**Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

#### 6 - ACCIDENTAL RELEASE MEASURES

**General Information:** Use proper personal protective equipment as indicated in Section 8.  
**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

#### 7 - HANDLING and STORAGE

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.  
**Storage:** Store in a cool, dry place. Keep container closed when not in use.

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**MATERIAL SAFETY DATA SHEET (MSDS)****SODIUM SELENATE AR****8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Exposure Limits CAS# 13410-01-0: United Kingdom, WEL - TWA: (listed as selenium compounds): 0.1 mg TWA (except hydrogen selenide, as Se) United Kingdom, WEL - STEL: (listed as selenium compounds): 0.3 m STEL (except hydrogen selenide, as Se)

United States OSHA: 0.2 mg/m<sup>3</sup> TWA (as Se) (listed under Selenium compounds). Belgium - TWA: (listed as selenium compounds): 0.2 mg/m<sup>3</sup> VLE (as

Japan: (listed as selenium compounds): 0.1 mg/m<sup>3</sup> OEL (except SeH<sub>2</sub> SeF<sub>6</sub>, as Se)

Malaysia: (listed as selenium compounds): 0.2 mg/m<sup>3</sup> TWA (as Se)

Netherlands: (listed as selenium compounds): 0.1 mg/m<sup>3</sup> MAC (as Se)

Spain: (listed as selenium compounds): 0.1 mg/m<sup>3</sup> VLA-ED (except hydrogen selenide, as Se) Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**9 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Powder

Color: white

Odor: odorless

pH: Not available.

Vapor Pressure: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Autoignition Temperature: Not available.

Flash Point: Not available.

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature:

Solubility in water: 840 g/l

Specific Gravity/Density:

**10 - STABILITY AND REACTIVITY**

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: None reported.

Incompatibilities with Other Materials:

None reported.

Hazardous Decomposition Products:

Toxic fumes of sodium oxide, selenium/selenium oxides.

Hazardous Polymerization: Has not been reported

**11 - TOXICOLOGICAL INFORMATION**

RTECS#: CAS# 13410-01-0: VS6650000

LD50/LC50:

CAS# 13410-01-0: Oral, rabbit: LD50 = 2250 ug/kg; Oral, rat: LD50 = 1600 ug/kg.

Carcinogenicity:

Sodium selenate - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

**12 - ECOLOGICAL INFORMATION**

Other No information available.

**13 - DISPOSAL CONSIDERATIONS**

Dispose of in a manner consistent with federal, state, and local regulations.

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**MATERIAL SAFETY DATA SHEET (MSDS)****SODIUM SELENATE AR****14 - TRANSPORT INFORMATION**

IATA  
Shipping Name: SELENATES  
Hazard Class: 6.1  
UN Number: 2630  
Packing Group: I IMO  
Shipping Name: SELENATES  
Hazard Class: 6.1  
UN Number: 2630  
Packing Group: I RID/ADR  
Shipping Name: SELENATES  
Hazard Class: 6.1  
UN Number: 2630  
Packing group: I

**15 - REGULATORY INFORMATION**

European/International Regulations European Labeling in Accordance with EC Directives

Hazard Symbols: T N

Risk Phrases:

R 23/25 Toxic by inhalation and if swallowed. R 33 Danger of cumulative effects. R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 20/21 When using do not eat, drink or smoke. S 28 After contact with skin, wash immediately with... S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S 60 This material and its container must be disposed of as hazardous waste. S 61 Avoid release to the environment. Refer to special instructions/safety data sheets. WGK (Water Danger/Protection) CAS# 13410-01-0: 2 Canada CAS# 13410-01-0 is listed on Canada's DSL List. CAS# 13410-01-0 is listed on Canada's Ingredient Disclosure List. US FEDERAL TSCA CAS# 13410-01-0 is listed on the TSCA inventory.

**16. Other Information**

**Product Use:** Laboratory Reagent.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

**DISCLAIMER:**

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

**End of document**