



Material Safety Data Sheet  
Selenium(IV) oxychloride, 97%

MSDS# 99131

### Section 1 - Chemical Product and Company Identification

MSDS Name: Selenium(IV) oxychloride, 97%  
Catalog Numbers: AC318490000, AC318490050, AC318490100  
Synonyms: Selenium chlorideoxide; Selenium oxychloride; Seleninyl dichloride.

Company Identification: Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

Company Identification: (USA) Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01  
For information in Europe, call: +32 14 57 52 11  
Emergency Number, Europe: +32 14 57 52 99  
Emergency Number US: 201-796-7100  
CHEMTREC Phone Number, US: 800-424-9300  
CHEMTREC Phone Number, Europe: 703-527-3887

### Section 2 - Composition, Information on Ingredients

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CAS#: 7791-23-3  
Chemical Name: Selenium(IV) oxychloride  
%: 97  
EINECS#: 232-244-0  
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Hazard Symbols: T



Risk Phrases: 23/25 33

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

**Danger!** Causes eye burns. Causes respiratory tract irritation. May cause allergic skin reaction. May be fatal if absorbed through the skin. Corrosive. Water-reactive. **Poison!** May cause liver and kidney damage. Reacts violently and/or explosively with water, steam or moisture. Target Organs: Kidneys, liver.

#### Potential Health Effects

Eye: Causes eye burns.

Skin: May be fatal if absorbed through the skin. Causes skin burns. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

Ingestion: Poison by ingestion. May cause irritation of the digestive tract and possible burns.

Inhalation: Causes respiratory tract irritation. May cause asthmatic attacks due to allergic sensitization of the respiratory tract. May cause pulmonary edema and severe respiratory disturbances. May cause burns to the respiratory tract. Effects of inhalation may be delayed.

May cause reproductive and fetal effects. Chronic exposure to selenium may cause central nervous system

Chronic: effects, digestive tract disturbances, pallor, garlic breath, Chronic exposure to selenium may cause pallor, garlic breath, metallic taste, anemia, liver and spleen damage. Chronic selenium poisoning is characterized by loss of hair and nails, skin lesions, and abnormalities of the nervous system.

#### Section 4 - First Aid Measures

Eyes: 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 immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Do NOT induce vomiting and seek IMMEDIATE MEDICAL ADVICE.  
Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Inhalation:

Notes to Physician:

#### Section 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. Use water spray to keep fire-exposed containers cool. Will react with water to form toxic and corrosive fumes. Reacts violently with water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media: Use dry chemical, carbon dioxide, or alcohol-resistant foam. DO NOT USE WATER! Cool containers with flooding quantities of water until well after fire is out.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: ; Special Hazard: -W-

#### Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. Provide ventilation.

#### Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood. Wash clothing before reuse. Discard contaminated shoes.

Storage: Store in a cool, dry place. Keep away from water. Corrosives area. Storage under a nitrogen blanket has been recommended.

#### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Selenium(IV) oxychl oride	none listed	none listed	none listed

OSHA Vacated PELs: Selenium(IV) oxychloride: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

## Exposure Limits

## 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 protective gloves to prevent skin exposure.
- Clothing: Wear appropriate protective clothing to prevent skin exposure.
- 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.

## Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: yellow-green

Odor: chlorine-like

pH: Not available

Vapor Pressure: 0.05 mm Hg @20 deg.

Vapor Density: 5.7 (air = 1)

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: 180 deg C ( 356.00°F)

Freezing/Melting Point: 9 deg C ( 48.20°F)

Decomposition Temperature: Not available

Solubility in water: Not available

Specific Gravity/Density: 2.4300g/cm3

Molecular Formula: Cl2OSe

Molecular Weight: 165.86

## Section 10 - Stability and Reactivity

- Chemical Stability: Stable. However, may decompose if exposed to moist air or water.
- Conditions to Avoid: Excess heat, exposure to moist air or water.
- Incompatibilities with Other Materials: Strong oxidizing agents, phosphorus.
- Hazardous Decomposition Products: Hydrogen chloride, hydrogen chloride, selenium/selenium oxides, chloride fumes, selenious acid.
- Hazardous Polymerization: Has not been reported.

## Section 11 - Toxicological Information

RTECS#: CAS# 7791-23-3: VS7000000

LD50/LC50: RTECS: Not available. Other:

Carcinogenicity: Selenium(IV) oxychloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The hazards associated with selenium may be seen in this product.. See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

Not available

## Section 13 - Disposal Considerations

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

## Section 14 - Transport Information

US DOT

Shipping Name: SELENIUM OXYCHLORIDE

Hazard Class: 8

UN Number: UN2879

Packing Group: I

Canada TDG

Shipping Name: Not available  
Hazard Class:  
UN Number:  
Packing Group:

## Section 15 - Regulatory Information

### European/International Regulations

#### European Labeling in Accordance with EC Directives

Hazard Symbols: T

Risk Phrases:

R 23/25 Toxic by inhalation and if swallowed.

R 33 Danger of cumulative effects.

Safety Phrases:

S 20/21 When using do not eat, drink or smoke.

S 28A After contact with skin, wash immediately with plenty of water.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### WGK (Water Danger/Protection)

CAS# 7791-23-3: Not available

#### Canada

CAS# 7791-23-3 is listed on Canada's DSL List

Canadian WHMIS Classifications: E, B6

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7791-23-3 is not listed on Canada's Ingredient Disclosure List.

#### US Federal

##### TSCA

CAS# 7791-23-3 is listed on the TSCA Inventory.

## Section 16 - Other Information

MSDS Creation Date: 4/05/1997

Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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