

Material Safety Data Sheet

Selenium(IV) oxychloride, 97%

ACC# 99131

Section 1 - Chemical Product and Company Identification

MSDS Name: Selenium(IV) oxychloride, 97%

Catalog Numbers: AC318490050, AC318490100

Synonyms: Selenium chlorideoxide; Selenium oxychloride; Seleninyl dichloride.

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7791-23-3	Selenium(IV) oxychloride	97	232-244-0

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow-green liquid.

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

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.

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

Inhalation: 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.

Notes to Physician: Treat symptomatically and supportively.

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.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 1; 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

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

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

OSHA Vacated PELs: Selenium(IV) oxychloride: No OSHA Vacated PELs are listed for this chemical.

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

Appearance: 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

Freezing/Melting Point:9 deg C

Decomposition Temperature:Not available.

Solubility: 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, irritating and toxic fumes and gases, 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:

Not available.

Carcinogenicity:

CAS# 7791-23-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: Adverse reproductive effects have occurred in experimental animals.

Mutagenicity: No information found
Neurotoxicity: No information found
Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	SELENIUM OXYCHLORIDE	No information available.
Hazard Class:	8	
UN Number:	UN2879	
Packing Group:	I	

Section 15 - Regulatory Information

US FEDERAL

TSCA

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

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

CAS# 7791-23-3: 500 lb TPQ

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 7791-23-3 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

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

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

WGK (Water Danger/Protection)

CAS# 7791-23-3: No information available.

Canada - DSL/NDL

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

Canada - WHMIS

This product has a WHMIS classification of 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.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 4/05/1997

Revision #4 Date: 8/15/2005

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 Fisher 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 Fisher has been advised of the possibility of such damages.