

# MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

Manufacturer: ProChem, Inc.  
826 Roosevelt Road  
Rockford, IL 61109

Phone: (815) 398-1788  
Fax: (815) 398-1810  
E-Mail: Prochem1@aol.com

---

## SECTION 1 Product Identification

---

**CHEMICAL NAME:** Selenium shot  
**CAS #:** 7782-49-2  
**FORMULA:** Se  
**SYNONYM:** None

---

## SECTION 2 Composition and Information on Ingredients

---

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	7782-49-2	100	0.2mg/m3(as Se)	0.2mg/m3(as Se)

---

## SECTION 3 Hazards Identification

---

**EMERGENCY OVERVIEW:** Harmful if swallowed. Toxic by inhalation. Chronic exposure may result in nervous system disorders, live and kidney disease. Danger of cumulative effects.

**PRIMARY ROUTES OF EXPOSURE:** Ingestion, inhalation, skin, eyes

**EYE CONTACT:** May cause mild to moderate irritation of the eyes.

**SKIN CONTACT:** May cause irritation of the skin, and upon repeated contact, dermatitis.

**INHALATION:** Toxic by inhalation. Inhalation of dust can cause garlic odor and shortness of breath, chills, headache, and delayed pulmonary edema.

**INGESTION:** Harmful if swallowed. Ingestion may lead to nausea, vomiting, bloody diarrhea, weakness, and chronic diseases.

**CHRONIC HEALTH EFFECTS:** Danger of cumulative effects. Prolonged exposure to selenium compounds may cause dermatitis, diarrhea, liver damage, nervous disorders, lameness, and loss of vitality. Equivocal tumorigenic agent by RTECS criteria. Reproductive, effector.

**ACUTE HEALTH EFFECTS:** May be irritating to skin, eyes and respiratory tract, Toxic by inhalation. Harmful if swallowed. May cause nausea, vomiting, bloody diarrhea, weakness, chills, headache, and delayed pulmonary edema.

---

## SECTION 4 First Aid Measures

---

**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

**SKIN EXPOSURE:** Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

**INHALATION:** Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

**INGESTION:** Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

---

## **SECTION 5                      Firefighting Measures**

---

**FLASH POINT:** not applicable

**AUTO IGNITION TEMPERATURE:** not applicable

**EXPLOSION LIMITS:** not applicable

**EXTINGUISHING MEDIUM:** For dust fire, carbon dioxide, foam, or dry powder

**SPECIAL FIREFIGHTING PROCEDURES:** If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** If dust is involved in a fire, burning metal will produce toxic fumes of selenium oxide.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** Non-flammable in shot form. Dust may form explosive mixtures with air.

---

## **SECTION 6                      Accidental Release Measures**

---

**SPILL AND LEAK PROCEDURES:** Small spills can be mixed with vermiculite or sodium carbonate and swept up.

---

## **SECTION 7                      Handling and Storage**

---

**HANDLING AND STORAGE:** Store in a tightly sealed container. When handling, avoid forming airborne dust. Use good housekeeping practices to avoid contamination of work area.

---

## **SECTION 8                      Exposure Controls and Personal Protection**

---

**EYE PROTECTION:** Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

**SKIN PROTECTION:** Chemical-resistant.

**VENTILATION:** If possible, handle the material in an efficient fume hood.

**RESPIRATOR:** If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

---

## **SECTION 9                      Physical and Chemical Properties**

---

**COLOR AND FORM:** gray pellets

**MOLECULAR WEIGHT:** 78.96

**MELTING POINT (DEG. C.):** not applicable

**BOILING POINT:** 690°

**VAPOR PRESSURE:** 1mm(356°C)

**SPECIFIC GRAVITY:** 4.81

**SOLUBILITY IN WATER:** Insoluble

---

## **SECTION 10      Stability and Reactivity**

---

**STABILITY:** air and moisture stable

**HAZARDOUS POLYMERIZATION:** no hazardous polymerization

**CONDITIONS TO AVOID:** Mixtures of fine dust with air. Contact with an ignition source.

**INCOMPATIBILITY:** Active metals, oxidizing agents and halogens.

**DECOMPOSITION PRODUCTS:** none

---

## **SECTION 11      Toxicological Information**

---

**RTECS DATA:** Oral (rat); LD50: 6700 mg/kg. Inhalation (rat); LCLo: 33 mg/kg/8H. Intravenous (rat); LD50: 6 mg/kg. Intravenous (rabbit); LDLo: 2500 ug/kg. Oral (mouse); TDLo: 480 mg/kg/60D-C. Oral (mouse); TDLo: 134 mg/kg.

**MUTAGENIC EFFECTS:** no data

**TETRAOGENIC EFFECTS:** Reproductive effector

**CARCINOGENIC EFFECTS:** Tumorigen

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

---

## **SECTION 12      Ecological Information**

---

**ECOLOGICAL INFORMATION:** No information available

---

## **SECTION 13      Disposal Considerations**

---

**DISPOSAL:** Dispose of in according to local state and federal regulations.

---

## **SECTION 14      Transportation Information**

---

Selenium compound, n.o.s., Class 6.1, UN 3283, PG III

---

## **SECTION 15      Regulatory Information**

---

**TSCA:** Listed in the TSCA inventory

**SARA (TITLE 313):** Title compound listed

---

## **SECTION 16      Other Information**

---

**DISCLAIMER:** The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

**DATE PREPARED:** 4/06