



SAFETY DATA SHEET

ProChemOnline.com



SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Selenium**

PRODUCT NUMBER: 3160

CAS NUMBER: 7782-49-2

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H301+H331	Toxic if swallowed or if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Phrases

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

HMIS CLASSIFICATION:

Health: 2 Chronic: * Fire: 0 Reactivity Hazard: 0

NFPA RATING:

Health: 2 Flammability: 0 Reactivity Hazard: 0

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

EYE CONTACT: May cause eye irritation.

SKIN CONTACT: Causes irritation to the skin.

INHALATION: Toxic if inhaled.

INGESTION: Toxic if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Se

Molecular Weight: 78.96

CHEMICAL NAME	CAS#	%
Selenium	7782-49-2	100

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 soap and water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. 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 available

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Selenium oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid formation of dust.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store under inert gas. Store in a tightly sealed container. Do not store with acids.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Selenium	0.2 mg/m ³	TWA	OSHA
	0.2 mg/m ³	TWA	ACGIH

TWA: Time Weighted Average over 8 hours of work.

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, apron, or lab coat.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Grey solid

ODOR: None

MOLECULAR WEIGHT: 78.96

BOILING POINT: 684.9° C

MELTING POINT: 217° C

SPECIFIC GRAVITY: 4.81 gm/ml

VAPOR DENSITY: No data available

SOLUBILITY: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Not available

INCOMPATIBILITY: Strong oxidizing agents and acids

DECOMPOSITION PRODUCTS: Selenium oxides

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – Rat – 6,700 mg/kg.

CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

MUTAGENIC EFFECTS: Not available

TETRATOGENIC EFFECTS: Not available

RTECS: VS7700000

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

SECTION 12 ECOLOGICAL DATA

TOXICITY TO FISH: Mortality NOEC – Cyprinodon variegatus (sheepshead minnow) – 2 mg/l – 96 h. Mortality LOEC – Oncorhynchus mykiss (rainbow trout) – 7.8 mg/l – 96 h.

TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES: LC50 – Daphnia magna (water flea) – 0.43 mg/l – 48 h.

TOXICITY TO ALGAE: EC5 – Pseudokirchneriella subcapitata – 99 mg/l – 72 h.

Very toxic to aquatic life with long lasting effects.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN3288

Toxic Solid, Inorganic, n.o.s.

(Selenium)

Class 6.1

PG III

Marine Pollutant: Yes

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not listed

SARA 311/312: Acute Health Hazard, Chronic Health Hazard

SARA (TITLE 313): Selenium

MASSACHUSETTS RIGHT TO KNOW: Selenium

PENNSYLVANIA RIGHT TO KNOW: Selenium

NEW JERSEY RIGHT TO KNOW: Selenium

CALIFORNIA PROP. 65: Not 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: 02/15

SDS DEPT.