SECTION 1        PRODUCT AND COMPANY INFORMATION

PRODUCT NAME:  Selenium (IV) Oxide
PRODUCT NUMBER:  3175
CAS NUMBER:  7446-08-4
SYNONYMS:  Selenous anhydride, selenium dioxide
MANUFACTURER:
Prochem, Inc.
826 Roosevelt Road
Rockford, IL  61109

PHONE:  815-398-1788
FAX:  815-398-1810
TOLL FREE:  800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC:  1-800-424-9300

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 or mist.
P261  Avoid breathing dust/fume/gas/mist/vapors/spray.
P264  Wash skin thoroughly after handling.
P270  Do not eat, drink, or smoke when using this product.
P273  Avoid release into the environment.
P314  Get medical advice/attention if you feel unwell.
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.

HMIS CLASSIFICATION:
Health: 3  Fire: 0  Reactivity Hazard: 1
NFPA RATING:
Health: 2  Flammability: 0  Reactivity Hazard: 0

EYE CONTACT:  May cause mild to moderate irritation of the eyes.
SKIN CONTACT:  May cause irritation of the skin and upon repeated contact, dermatitis.
SECTION 2  HAZARDS IDENTIFICATION (Cont.)

INHALATION: Inhalation of dust can cause garlic odor and shortness of breath, chills, headache, and delayed pulmonary effector.

INGESTION: Ingestion may lead to nausea, vomiting, bloody diarrhea, weakness, and chronic disease.

SECTION 3  COMPOSITION / INFORMATION ON INGREDIENTS

Formula: \( \text{SeO}_2 \)

Molecular Weight: 110.96

<table>
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<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
<th>%</th>
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<td>Selenium (IV) Oxide</td>
<td>7446-08-4</td>
<td>100</td>
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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 to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.

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: Product is not flammable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

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.

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. Small spills can be mixed with vermiculite or sodium carbonate and swept up.

SECTION 7  HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts and aerosols.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store away from oxidizing agents. Hygroscopic

SECTION 8  EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS: Contains no substances with occupational exposure limit values.

<table>
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<th>Component</th>
<th>Exposure Limits</th>
<th>Basis</th>
<th>Entity</th>
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<tr>
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<td>0.2 mg/m³</td>
<td>TLV</td>
<td>ACGIH</td>
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<tr>
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<td>0.2 mg/m³</td>
<td>PEL</td>
<td>OSHA</td>
</tr>
<tr>
<td></td>
<td>0.2 mg/m³</td>
<td>REL</td>
<td>NIOSH</td>
</tr>
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</table>

TLV: Threshold Limit Value over 8 hours of work.

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit
SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION (Cont.)

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.
SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.
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: Off-white powder
ODOR: None
MOLECULAR WEIGHT: 110.96
BOILING POINT: 340-350° C (subl.)
MELTING POINT: 315°C
SPECIFIC GRAVITY: 3.95 gm/ml
VAPOR DENSITY: No data available
SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Avoid moisture.
INCOMPATIBILITY: Strong oxidizing agents, organic materials, strong acids, ammonia, and active metals.
DECOMPOSITION PRODUCTS: Selenium oxides.

SECTION 11 TOXICOLOGICAL DATA

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
CHRONIC TOXICITY: May cause damage to the kidneys, the liver, and the blood tissue through prolonged or repeated exposure.
RTECS: VS8575000

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

SECTION 12 ECOLOGICAL DATA

AQUATIC VERTEBRATE: LC50 – Pimephales promleas (fathead minnow) – 2.9 mg/L – 96h.
AQUATIC INVERTEBRATE: Not available
TERRESTRIAL: Growth inhibition EC50 – Scenedesmus acutus – 0.1 mg/L – 3d. Growth inhibition LOEC – Pseudokirchneriella subcapitata – 24.63 mg/L – 6d.
Do not allow product to reach ground water, watercourse, or sewage system. Danger to drinking water if even small quantities leak into the ground. Very toxic for aquatic organisms, also poisonous for fish and plankton in water bodies. May cause long lasting harmful effects to aquatic life – avoid transfer into the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.
SECTION 14 TRANSPORTATION DATA

UN3283                     Marine Pollutant: No
Selenium Compound, solid, n.o.s.
(Selenium (IV) Oxide)
CLASS 6.1
PG III

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory
DSCL (EEC): Listed on the DSCL inventory
SARA 302/304: Not Listed
SARA 311/312: Acute Health Hazard, Chronic Health Hazard
SARA (TITLE 313): Selenium Dioxide
CALIFORNIA PROP. 65: Not Listed
MASSACHUSETTS RIGHT TO KNOW COMPONENTS: Selenium dioxide
NEW JERSEY RIGHT TO KNOW COMPONENTS: Selenium dioxide
PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Selenium dioxide

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: 08/14