**MATERIAL SAFETY DATA SHEET**

**Section 1- PRODUCT IDENTIFICATION**

<table>
<thead>
<tr>
<th>COMPOSITION</th>
<th>PRODUCT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Se</td>
<td>Selenium</td>
</tr>
</tbody>
</table>

**Section 2- HAZARDOUS INGREDIENTS**

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

<table>
<thead>
<tr>
<th>MATERIAL OR COMPONENT</th>
<th>CAS NUMBER</th>
<th>WT%</th>
<th>EXPOSURE LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL (Mg/M³)</td>
</tr>
<tr>
<td>Selenium</td>
<td>7782-49-2</td>
<td>100</td>
<td>0.2mg/m³</td>
</tr>
</tbody>
</table>

**Section 3- PHYSICAL DATA**

- **APPEARANCE AND ODOR**: Blue-gray powder/pieces-Slight pungent odor
- **SPECIFIC GRAVITY**: 4.81-4.26gm/cc Depending on crystal structure

**Section 4- FIRE AND EXPLOSION**

- **Flammable Limits**: Finely divided dust may burn. Non-flammable in pieces
- **LEL**: N.A.  
  **UEL**: N.A.

**EXTINGUISHING MEDIA**

- **Class D fires**: agents for metal fires such as limestone, sand, graphite, MET-L-X or TEC
- **SPECIAL FIRED FIGHTING PROCEDURES**
  - Self contained breathing apparatus should be worn by fireman fighting fires where selenium is stored.
  - Finely divided Se may be a potential explosion hazard when exposed to sparks, open flame or high heat source.

**Section 5- REACTIVITY DATA**

<table>
<thead>
<tr>
<th>STABILITY</th>
<th>INCOMPATABILITY (MATERIALS TO AVOID)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>Strong acids, bases, oxidizers, K, H₂</td>
</tr>
</tbody>
</table>

**CONDITIONS TO AVOID**

- Avoid open flame, sparks, or chemical reaction with materials listed above

**HAZARDOUS DECOMPOSITION PRODUCTS**
### Section 6- HEALTH HAZARD GUIDE

**MAJOR EXPOSURE HAZARD**
- □ Inhilation
- □ Skin
- □ Skin Absorption
- □ Eye Contact
- □ Ingestion

**INHALATION:** Selenium dust or fumes can cause irritation, metallic taste and garlic like odor to breath. High concentrations can cause shortness of breath, bronchi spasms, chills, fever, headache and delayed pulmonary edema.

**DERMAL:** Skin irritant. Repeated skin contact can cause dermatitis.

**EYE CONTACT:** Eye irritant. Selenium in the eye can cause a pink allergic type reaction.

**OTHER:** Systemic effect of exposure includes pallor, weakness, G.I. tract disturbances and nervousness.

**EMERGENCY & FIRST AID PROCEDURES**

**INHALATION:** Remove from exposed area to fresh air

**INGESTION:** Give plenty of fluids to induce vomiting.

**SKIN CONTACT:** Wash affected area with soap or mild detergent.

**EYE CONTACT:** Flush eyes with lukewarm water lifting up the upper and lower lids for at least fifteen minutes.

### Section 7- SPILL OR LEAK PROCEDURES

**SPILL OR LEAK PROCEDURES**
- Sweep or scoop up in pieces. Vacuum powders with HEPA filter. Take care not to raise dust.

**WASTE DISPOSAL METHODS**
- Dispose in accordance with federal, state and local regulations.

### Section 8- SPECIAL PROTECTION

**RESPIRATORY**
- Use NIOSH approved dust-mist-fume cartridge respirator.

**VENTILATION**
- Use local ventilation to meet TLV requirements.

**EYE PROTECTION & PROTECTIVE CLOTHING**
- Wear protective clothing to prevent skin contamination. Use neoprene gloves and protective glasses.

### Section 9- SPECIAL PRECAUTIONS

- Avoid storage near strong acids or bases. Store in tightly closed containers. Wash hands and face thoroughly after handling and before eating or smoking.

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