

Plasmaterials, Inc.  
 2268 Research Drive  
 Livermore, CA 94550  
 Ph: (925) 447-4030 Fx: (925) 447-4031  
<http://plasmaterials.com>

## MATERIAL SAFETY DATA SHEET

### Section 1- PRODUCT IDENTIFICATION

COMPOSITION <b>Se</b>	PRODUCT NAME <b>Selenium</b>
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### Section 2- HAZARDOUS INGREDIENTS

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

MATERIAL OR COMPONENT	CAS NUMBER	WT%	EXPOSURE LIMITS	
			OSHA PEL (Mg/M3)	ACGIH TLV(MG/M3)
<b>Selenium</b>	<b>7782-49-2</b>	<b>100</b>	<b>0.2mg/m<sup>3</sup></b>	<b>200µg/m<sup>3</sup></b>

### Section 3- PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS) <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	APPEARANCE AND ODOR <b>Blue-gray powder/pieces-Slight pungent odor</b>
MELTING POINT (BASE METAL)  <b>170° C - 217° C</b> <b>Depending on crystal structure</b>	SPECIFIC GRAVITY  <b>4.81-4.26gm/cc</b> <b>Depending on crystal structure</b>

### Section 4- FIRE AND EXPLOSION

Flash Point (Method Used)  <b>N/A</b>	Flammable Limits  <b>Finely divided dust may burn. Non-flammable in pieces</b>	LEL  <b>N.A.</b>	UEL  <b>N.A.</b>
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#### 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.**

#### UNUSUAL FIRE AND EXPLOSION HAZARDS

**Finely divided Se may be a potential explosion hazard when exposed to sparks, open flame or high heat source.**

### Section 5- REACTIVITY DATA

STABILITY <b>Stable</b>	INCOMPATIBILITY (MATERIALS TO AVOID) <b>Strong acids, bases, oxidizers, K, H2</b>
CONDITIONS TO AVOID <b>Avoid open flame, sparks, or chemical reaction with materials listed above</b>	
HAZARDOUS DECOMPOISTION PRODUCTS	

## Section 6- HEALTH HAZARD GUIDE

MAJOR EXPOSURE HAZARD

**Inhalation**  **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 PROCUDRES

**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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