

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

|              |           |
|--------------|-----------|
| Product name | Selenium  |
| CAS number   | 7782-49-2 |
| Synonyms     | None      |

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

|                 |                      |
|-----------------|----------------------|
| Identified uses | Laboratory chemicals |
|-----------------|----------------------|

#### 1.3 Details of the supplier of the safety data sheet

|           |  |
|-----------|--|
| Company   | Lab Alley, LLC<br>12501 Pauls Valley Road<br>Austin, Texas 78737<br>U.S.A. |
| Telephone | 512-668-9918   |
| Fax       | 512-886-4008   |

#### 1.4 Emergency telephone

|                   |                              |          |
|-------------------|------------------------------|----------|
| Emergency Phone # | US & Canada: 1-800-535-5053  | INFOTRAC |
|                   | International 1-352-323-3500 | INFOTRAC |

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|  |            |
|--|------------|
| Acute oral toxicity                                  | Category 3 |
| Acute Inhalation Toxicity - Dusts and Mists          | Category 3 |
| Specific target organ toxicity - (repeated exposure) | Category 2 |

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

May cause damage to organs through prolonged or repeated exposure.  
Toxic if swallowed or if inhaled.

Precautionary statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray.

Response

Get medical attention/advice if you feel unwell.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal

Dispose of contents/container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

May cause long lasting harmful effects to aquatic life.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

| Chemical name | Common name and synonyms | CAS number | Concentration |
|---------------|--------------------------|------------|---------------|
| Selenium      | -                        | 7782-49-2  | >99.5%        |

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

#### If inhaled

Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the air of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

#### In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**In case of eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**If swallowed** Do NOT induce vomiting. Call a physician or poison control center immediately.

#### 4.2 Most important symptoms and effects, both acute and delayed

None reasonable foreseeable.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media** No information available.

**Unsuitable extinguishing media** No information available.

#### 5.2 Specific hazards arising from the substance or mixture

Dust can form an explosive mixture with air.

#### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

#### 5.4 Further information

**Flash Point** No data available

**Autoignition Temperature** No information available

##### Explosion limits

|   |                          |
|---|--------------------------|
| <b>Upper</b>                            | No data available        |
| <b>Lower</b>                            | No data available        |
| <b>Sensitivity to Mechanical Impact</b> | No information available |
| <b>Sensitivity to Static Discharge</b>  | No information available |

##### NFPA

| Health | Flammability | Instability | Physical hazards |
|--------|--------------|-------------|------------------|
| 3      | 0            | 0           | N/A              |

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

## 6.2 Environmental precautions

Should not be released into the environment.

## 6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

## 6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

# SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

### Precautions on safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.

### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

## 7.2 Conditions for safe storage, including any incompatibilities

### Storage conditions

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep under nitrogen. Incompatible materials. Acids. Strong oxidizing agents. Fluorine. Oxygen. Metals.

### Incompatibilities

No information available.

# SECTION 8: Exposure controls/personal protection

## 8.1 Occupational exposure limits

### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Component | Type          | Value                 |
|-----------|---------------|-----------------------|
| Selenium  | (Vacated) TWA | 0.2 mg/m <sup>3</sup> |

### US. ACGIH Threshold Limit Values

| Component | Type | Value                 |
|-----------|------|-----------------------|
| Selenium  | TWA  | 0.2 mg/m <sup>3</sup> |

## US. NIOSH: Pocket Guide to Chemical Hazards

| Component | Type | Value                 |
|-----------|------|-----------------------|
| Selenium  | IDLH | 1 mg/m <sup>3</sup>   |
|           | TWA  | 0.2 mg/m <sup>3</sup> |

### Biological occupational exposure limits

No information available

## 8.2 Exposure controls

### Appropriate engineering controls

Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protective equipment

#### Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### Respiratory protection

A NIOSH/MSHA approved air-purifying dust or mist respirator or European Standard EN 149.

#### Control of environmental exposure

No information available

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                 |                                 |
|---------------------------------|---------------------------------|
| Physical State                  | Powder Solid Granules           |
| Appearance                      | Dark Grey                       |
| Odor                            | No information available        |
| Odor Threshold                  | No information available        |
| pH                              | No information available        |
| Melting Point/Range             | 217 - 222 °C / 422.6 - 431.6 °F |
| Boiling Point/Range             | 685 °C / 1265 °F                |
| Evaporation Rate                | No information available        |
| Flammability (solid)            | No information available        |
| Flammability or explosive limit |                                 |
| Upper                           | No data available               |
| Lower                           | No data available               |
| Vapor Pressure                  | 1 mmHg @ 345 °C                 |
| Vapor Density                   | No data available               |

|  |                          |
|--|--------------------------|
| Density                                | 4.810                    |
| Solubility                             | No information available |
| Partition coefficient; n-octanol/water | No data available        |
| Autoignition Temp                      | No information available |
| Decomposition Temp                     | No information available |
| Viscosity                              | No information available |
| Molecular Formula                      | Se                       |
| Molecular Weight                       | 78.96                    |
| VOC Content(%)                         | No information available |
| Oxidizing properties                   | No information available |

## 9.2 Other safety information

No information available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None known, based on information available.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

None under normal processing.

### 10.4 Conditions to avoid

Incompatible products.

### 10.5 Incompatible materials

Acids, strong oxidizing agents, fluorine, oxygen, metals.

### 10.6 Hazardous decomposition products

None under normal use conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

#### Acute toxicity

| Component | LD50 Oral        | LD50 Dermal | LC50 Inhalation       |
|-----------|------------------|-------------|-----------------------|
| Selenium  | 6700 mg/kg (rat) | -           | >5.67 mg/l (rat) 4 hr |

#### Skin corrosion/irritation

No information available

#### Serious eye damage/eye irritation

No information available

**Respiratory or skin sensitization**

No information available

**Germ cell mutagenicity**

No information available

**Carcinogenicity**

| Component | CAS       | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-----------|-----------|------------|------------|------------|------------|------------|
| Selenium  | 7782-49-2 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Specific target organ toxicity - single exposure**

No information available

**Specific target organ toxicity - repeated exposure**

No information available

**Reproductive toxicity**

No information available

**Chronic effects**

No information available

**11.2 Additional Information**

No information available

**SECTION 12: Ecological information**

**12.1 Toxicity**

| Product  |      | Species             | Test Results   |
|----------|------|---------------------|----------------|
| Selenium | LC50 | Oncorhynchus mykiss | > 100 mg/L 96h |

**12.2 Persistence and degradability**

Insoluble in water

**12.3 Bio accumulative potential**

No information available

**12.4 Mobility in soil**

Is not likely mobile in the environment due its low water solubility.

**12.5 Results of PBT and vPvB assessment**

No information available

**12.6 Endocrine disrupting properties**

No information available

## 12.7 Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### DOT (US)

|                      |                                  |
|----------------------|----------------------------------|
| UN-No                | UN3283                           |
| Proper Shipping Name | SELENIUM COMPOUND, SOLID, N.O.S. |
| Hazard Class         | 6.1                              |
| Packing Group        | III                              |

### IMDG

|                      |                                  |
|----------------------|----------------------------------|
| UN-No                | UN3283                           |
| Proper Shipping Name | SELENIUM COMPOUND, SOLID, N.O.S. |
| Hazard Class         | 6.1                              |
| Packing Group        | III                              |

### IATA

|                      |                                  |
|----------------------|----------------------------------|
| UN-No                | UN3283                           |
| Proper Shipping Name | SELENIUM COMPOUND, SOLID, N.O.S. |
| Hazard Class         | 6.1                              |
| Packing Group        | III                              |

## SECTION 15: Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not listed.

### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Listed, Hazardous Substances RQs: 100 lb

### **SARA 304 Emergency release notification**

Not regulated

### **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**



Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous**

See section 2 for more information.

**SARA 313 (TRI reporting)**

Not regulated

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act**

Not regulated

**FEMA Priority Substances Respiratory Health and Safety in the Flavor  
Manufacturing Workplace**

Not listed

**US state regulations**

**US. Massachusetts RTK - Substance List**

Listed

**US. New Jersey Worker and Community Right-to-Know Act**

Listed

**US. Pennsylvania Worker and Community Right-to-Know Law**

Listed

**California Proposition 65**

Not listed

**SECTION 16: Other information**

Issue date: 08/16/2024

Revision: 0

**SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.