

**SAFETY DATA SHEET**

Creation Date 11-Nov-2011

Revision Date 29-Mar-2024

Revision Number 4

**1. Identification**

|                             |  |
|-----------------------------|--|
| <b>Product Name</b>         | <b>Lead slug</b>                               |
| <b>Cat No. :</b>            | <b>43415</b>                                   |
| <b>CAS No</b>               | 7439-92-1                                      |
| <b>Synonyms</b>             | Lead metal                                     |
| <b>Recommended Use</b>      | Laboratory chemicals.                          |
| <b>Uses advised against</b> | Food, drug, pesticide or biocidal product use. |

**Details of the supplier of the safety data sheet****Company**

Thermo Fisher Scientific Chemicals, Inc.  
30 Bond Street  
Ward Hill, MA 01835-8099  
Tel: 800-343-0660  
Fax: 800-322-4757

**Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

**2. Hazard(s) identification****Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|  |             |
|--|-------------|
| Carcinogenicity  | Category 1B |
| Reproductive Toxicity  | Category 1A |
| Effects on or via lactation                                  |             |
| Specific target organ toxicity - (repeated exposure)         | Category 1  |
| Target Organs - Kidney, Central nervous system (CNS), Blood. |             |

**Label Elements****Signal Word**

Danger

**Hazard Statements**

May cause cancer

May damage fertility. May damage the unborn child  
May cause harm to breast-fed children  
Causes damage to organs through prolonged or repeated exposure

**Precautionary Statements****Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Do not breathe dust/fume/gas/mist/vapors/spray  
Avoid contact during pregnancy/while nursing  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product

**Response**

IF exposed or concerned: Get medical attention/advice

**Storage**

Store locked up

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

WARNING. Cancer and Reproductive Harm - <https://www.p65warnings.ca.gov/>.

### 3. Composition/Information on Ingredients

| Component | CAS No    | Weight % |
|-----------|-----------|----------|
| Lead      | 7439-92-1 | <=100    |

### 4. First-aid measures

**General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Eye Contact**

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin Contact**

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

**Inhalation**

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 aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

**Ingestion**

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

**Most important symptoms and effects**

None reasonably foreseeable.

**Notes to Physician**

Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

**Unsuitable Extinguishing Media** No information available

**Flash Point** No information available  
**Method -** No information available

**Autoignition Temperature** No information available

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

### Specific Hazards Arising from the Chemical

Non-combustible. Do not allow run-off from fire-fighting to enter drains or water courses.

### Hazardous Combustion Products

Lead, lead oxides.

### 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.

### NFPA

**Health**  
2

**Flammability**  
0

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

**Personal Precautions** 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.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Do not allow material to contaminate ground water system.

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

## 7. Handling and storage

**Handling** Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. 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.

**Storage.** Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Strong acids. Ammonium nitrate: fertilizers capable of self-sustaining decomposition. Peroxides.

## 8. Exposure controls / personal protection

### Exposure Guidelines

| Component | ACGIH TLV                   | OSHA PEL                  | NIOSH   | Mexico OEL (TWA)            |
|-----------|-----------------------------|---------------------------|---|-----------------------------|
| Lead      | TWA: 0.05 mg/m <sup>3</sup> | TWA: 50 µg/m <sup>3</sup> | IDLH: 100 mg/m <sup>3</sup><br>TWA: 0.050 mg/m <sup>3</sup> | TWA: 0.05 mg/m <sup>3</sup> |

Legend

ACGIH - American Conference of Governmental Industrial Hygienists  
 OSHA - Occupational Safety and Health Administration  
 NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

#### **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** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended Filter type:** Particulates filter conforming to EN 143.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

|   |                              |
|---|------------------------------|
| <b>Physical State</b>                         | Solid                        |
| <b>Appearance</b>                             | Grey                         |
| <b>Odor</b>                                   | Odorless                     |
| <b>Odor Threshold</b>                         | No information available     |
| <b>pH</b>                                     | No information available     |
| <b>Melting Point/Range</b>                    | 327.4 °C / 621.3 °F          |
| <b>Boiling Point/Range</b>                    | 1740 °C / 3164 °F @ 760 mmHg |
| <b>Flash Point</b>                            | No information available     |
| <b>Evaporation Rate</b>                       | Not applicable               |
| <b>Flammability (solid,gas)</b>               | No information available     |
| <b>Flammability or explosive limits</b>       |                              |
| <b>Upper</b>                                  | No data available            |
| <b>Lower</b>                                  | No data available            |
| <b>Vapor Pressure</b>                         | 1.77 mmHg @ 1000 °C          |
| <b>Vapor Density</b>                          | Not applicable               |
| <b>Specific Gravity</b>                       | No information available     |
| <b>Solubility</b>                             | Insoluble in water           |
| <b>Partition coefficient; n-octanol/water</b> | No data available            |
| <b>Autoignition Temperature</b>               | No information available     |
| <b>Decomposition Temperature</b>              | No information available     |
| <b>Viscosity</b>                              | Not applicable               |
| <b>Molecular Formula</b>                      | Pb                           |
| <b>Molecular Weight</b>                       | 207.19                       |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Exposure to air. Incompatible products.

**Incompatible Materials** Strong acids, Ammonium nitrate: fertilizers capable of self-sustaining decomposition, Peroxides

**Hazardous Decomposition Products** Lead, lead oxides

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### Product Information

#### Component Information

**Toxicologically Synergistic Products** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation** No information available

**Sensitization** May cause sensitization by skin contact

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS No    | IARC     | NTP                    | ACGIH | OSHA | Mexico |
|-----------|-----------|----------|------------------------|-------|------|--------|
| Lead      | 7439-92-1 | Group 2A | Reasonably Anticipated | A3    | X    | A3     |

*IARC (International Agency for Research on Cancer)*

*IARC (International Agency for Research on Cancer)*

*Group 1 - Carcinogenic to Humans*

*Group 2A - Probably Carcinogenic to Humans*

*Group 2B - Possibly Carcinogenic to Humans*

*NTP: (National Toxicity Program)*

*NTP: (National Toxicity Program)*

*Known - Known Carcinogen*

*Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen*

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

*A1 - Known Human Carcinogen*

*A2 - Suspected Human Carcinogen*

*A3 - Animal Carcinogen*

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

*Mexico - Occupational Exposure Limits - Carcinogens*

*Mexico - Occupational Exposure Limits - Carcinogens*

*A1 - Confirmed Human Carcinogen*

*A2 - Suspected Human Carcinogen*

*A3 - Confirmed Animal Carcinogen*

*A4 - Not Classifiable as a Human Carcinogen*

*A5 - Not Suspected as a Human Carcinogen*

**Mutagenic Effects** No information available

**Reproductive Effects** May cause harm to the unborn child. Possible risk of impaired fertility.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** Kidney Central nervous system (CNS) Blood

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

The product contains following substances which are hazardous for the environment. Contains a substance which is: Very toxic to aquatic organisms. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

| Component | Freshwater Algae | Freshwater Fish  | Microtox   | Water Flea                         |
|-----------|------------------|--|------------|------------------------------------|
| Lead      | Not listed       | LC50: = 1.32 mg/L, 96h static (Oncorhynchus mykiss)<br>LC50: = 1.17 mg/L, 96h flow-through (Oncorhynchus mykiss)<br>LC50: = 0.44 mg/L, 96h semi-static (Cyprinus carpio) | Not listed | EC50: = 600 µg/L, 48h (water flea) |

**Persistence and Degradability** Insoluble in water May persist

**Bioaccumulation/ Accumulation** No information available.

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

## 13. Disposal considerations

**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.

## 14. Transport information

|                 |               |
|-----------------|---------------|
| <b>DOT</b>      | Not regulated |
| <b>TDG</b>      | Not regulated |
| <b>IATA</b>     | Not regulated |
| <b>IMDG/IMO</b> | Not regulated |

## 15. Regulatory information

### United States of America Inventory

| Component | CAS No    | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|-----------|-----------|------|---|-----------------------------|
| Lead      | 7439-92-1 | X    | ACTIVE  | -                           |

#### Legend:

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b)** - Notices of Export Not applicable

| Component | CAS No    | TSCA 12(b) - Notices of Export |
|-----------|-----------|--------------------------------|
| Lead      | 7439-92-1 | Section 6                      |

### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component | CAS No | DSL | NDSL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|-----------|--------|-----|------|--------|-------|------|------|------|-------|------|
|-----------|--------|-----|------|--------|-------|------|------|------|-------|------|

|      |           |   |   |           |   |   |  |   |   |          |
|------|-----------|---|---|-----------|---|---|--|---|---|----------|
| Lead | 7439-92-1 | X | - | 231-100-4 | X | X |  | X | X | KE-21887 |
|------|-----------|---|---|-----------|---|---|--|---|---|----------|

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. Note that PBT chemicals are not eligible for the de minimis exemption. For these chemicals, supplier notification limits are provided.

> 0 % = no low concentration cut-off set, supplier notification limit applies.

| Component | CAS No    | Weight % | SARA 313 - Threshold Values % | SARA 313 - Reporting thresholds |
|-----------|-----------|----------|-------------------------------|---------------------------------|
| Lead      | 7439-92-1 | <=100    | > 0 %                         | RT = 100 lb                     |

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### **CWA (Clean Water Act)**

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|-----------|----------------------------|-----------------------------|------------------------|---------------------------|
| Lead      | -                          | -                           | X                      | X                         |

#### **Clean Air Act**

OSHA - Occupational Safety and Health Administration      Not applicable

| Component | Specifically Regulated Chemicals                              | Highly Hazardous Chemicals |
|-----------|---|----------------------------|
| Lead      | 30 µg/m <sup>3</sup> Action Level<br>50 µg/m <sup>3</sup> TWA | -                          |

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

| Component | Hazardous Substances RQs | CERCLA Extremely Hazardous Substances RQs | SARA Reportable Quantity (RQ) |
|-----------|--------------------------|---|-------------------------------|
| Lead      | 10 lb                    | -   | 10 lb<br>4.54 kg              |

#### **California Proposition 65**

This product contains the following Proposition 65 chemicals.

| Component | CAS No    | California Prop. 65   | Prop 65 NSRL | Category                    |
|-----------|-----------|---|--------------|-----------------------------|
| Lead      | 7439-92-1 | Carcinogen<br>Developmental<br>Female Reproductive<br>Male Reproductive | 15 µg/day    | Developmental<br>Carcinogen |

#### **U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-----------|---------------|------------|--------------|----------|--------------|
| Lead      | X             | X          | X            | X        | X            |

#### **U.S. Department of Transportation**

Reportable Quantity (RQ):                      Y  
DOT Marine Pollutant                              N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

**Other International Regulations**

Mexico - Grade No information available

**Authorisation/Restrictions according to EU REACH**

| Component | CAS No    | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances  | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|-----------|-----------|---|--|---|
| Lead      | 7439-92-1 | -   | Use restricted. See item 72.<br>(see link for restriction details)<br>Use restricted. See item 30.<br>(see link for restriction details)<br>Use restricted. See item 63.<br>(see link for restriction details)<br>Use restricted. See item 75.<br>(see link for restriction details) | SVHC Candidate list - 231-100-4 - Toxic for reproduction (Article 57c)                                |

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

**REACH links**<https://echa.europa.eu/authorisation-list><https://echa.europa.eu/substances-restricted-under-reach><https://echa.europa.eu/candidate-list-table>**Safety, health and environmental regulations/legislation specific for the substance or mixture**

| Component | CAS No    | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|-----------|-----------|----------|------------------------------|---------------------------|--|
| Lead      | 7439-92-1 | Listed   | Not applicable               | Not applicable            | 0.1% (Max. Conc.)                          |

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

**Other International Regulations**

| Component | CAS No    | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|-----------|-----------|---|--|----------------------------|------------------------------------|
| Lead      | 7439-92-1 | Not applicable  | Not applicable   | Not applicable             | Annex I - Y31                      |



**16. Other information**

|                         |  |
|-------------------------|--|
| <b>Prepared By</b>      | Health, Safety and Environmental Department<br>Email: chem.techinfo@thermofisher.com<br>www.thermofisher.com |
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| <b>Revision Date</b>    | 29-Mar-2024  |
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| <b>Revision Summary</b> | New emergency telephone response service provider.   |

**Disclaimer**

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

**End of SDS**