1. Identification

Product Name  
Lead(II) nitrate

Cat No. :  
AC193320000, AC193320100, AC193320500

CAS-No  
10099-74-8

Synonyms  
Nitric acid, lead(2+) salt; Plumbous nitrate.; Lead dinitrate

Recommended Use  
Laboratory chemicals.

Uses advised against  
Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Emergency Telephone Number
For information US call: 001-800-ACROS-01 / 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)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 2</td>
<td>Oxidizing solids</td>
</tr>
<tr>
<td>Category 4</td>
<td>Acute oral toxicity</td>
</tr>
<tr>
<td>Category 4</td>
<td>Acute Inhalation Toxicity - Dusts and Mists</td>
</tr>
<tr>
<td>Category 1</td>
<td>Serious Eye Damage/Eye Irritation</td>
</tr>
<tr>
<td>Category 1B</td>
<td>Carcinogenicity</td>
</tr>
<tr>
<td>Category 1A</td>
<td>Reproductive Toxicity</td>
</tr>
<tr>
<td>Category 3</td>
<td>Specific target organ toxicity (single exposure)</td>
</tr>
<tr>
<td>Category 2</td>
<td>Target Organs - Central nervous system (CNS).</td>
</tr>
<tr>
<td>Category 2</td>
<td>Specific target organ toxicity - (repeated exposure)</td>
</tr>
<tr>
<td></td>
<td>Target Organs - Kidney, Liver, Blood.</td>
</tr>
</tbody>
</table>

Label Elements

Signal Word
Danger
**Hazard Statements**
May intensify fire; oxidizer  
Causes serious eye damage  
May cause drowsiness or dizziness  
May cause cancer  
May damage the unborn child. Suspected of damaging fertility  
May cause damage to organs through prolonged or repeated exposure  
Harmful if swallowed or if inhaled

**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  
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  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep/Store away from clothing/ other combustible materials  
Take any precaution to avoid mixing with combustibles

**Response**
IF exposed or concerned: Get medical attention/advice

**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

**Eyes**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician

**Ingestion**
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth

**Fire**
In case of fire: Use CO2, dry chemical, or foam for extinction

**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

**Hazards not otherwise classified (HNOC)**
Very toxic to aquatic life with long lasting effects  
WARNING. Cancer - https://www.p65warnings.ca.gov/

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### 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>10099-74-8</td>
<td>&gt;95</td>
</tr>
</tbody>
</table>

---

### 4. First-aid measures
5. Fire-fighting measures

Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Unsuitable Extinguishing Media

No information available

Flash Point

Not applicable

Method -

No information available

Autoignition Temperature

No information available

Explosion Limits

Upper

No data available

Lower

No data available

Oxidizing Properties

Oxidizer

Sensitivity to Mechanical Impact

No information available

Sensitivity to Static Discharge

No information available

Specific Hazards Arising from the Chemical

Oxidizer: Contact with combustible/organic material may cause fire. Thermal decomposition can lead to release of irritating gases and vapors. May ignite combustibles (wood paper, oil, clothing, etc.). Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Nitrogen oxides (NOx), 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.

NFPA

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>2</td>
<td>OX</td>
</tr>
</tbody>
</table>

6. Accidental release measures

Personal Precautions

Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid dust formation.

Environmental Precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. Should not be released into the environment.

Methods for Containment and Clean

Avoid dust formation. Provide adequate ventilation. Keep combustibles (wood, paper, oil,
**Lead(II) nitrate**

**Revision Date** 19-Jan-2018

Up etc) away from spilled material. Sweep up and shovel into suitable containers for disposal.

### 7. Handling and storage

**Handling**
Use only under a chemical fume hood. Wear personal protective equipment/face protection. Keep away from clothing and other combustible materials. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Do not breathe dust.

**Storage**
Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

### 8. Exposure controls / personal protection

**Exposure Guidelines**
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>TWA: 0.05 mg/m³</td>
<td></td>
<td>IDLH: 100 mg/m³</td>
<td>TWA: 0.05 mg/m³</td>
</tr>
</tbody>
</table>

**Legend**

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

**Engineering Measures**
Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. 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**
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.

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

### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>3 - 4 20%aq. sol</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>470 °C / 878 °F</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid,gas)</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability or explosive limits</td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>negligible</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>4.530</td>
</tr>
</tbody>
</table>
Lead(II) nitrate

Solubility
Soluble in water

Partition coefficient; n-octanol/water
No data available

Autoignition Temperature
No information available

Decomposition Temperature
No information available

Viscosity
Not applicable

Molecular Formula
N2 O6 Pb

Molecular Weight
331.2

10. Stability and reactivity

Reactive Hazard
Yes

Stability
Oxidizer: Contact with combustible/organic material may cause fire.

Conditions to Avoid

Incompatible Materials
Strong reducing agents, Organic materials, Finely powdered metals, Combustible material

Hazardous Decomposition Products
Nitrogen oxides (NOx), lead oxides

Hazardous Polymerization
Hazardous polymerization does not occur.

Hazardous Reactions
None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information
Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>LD50 = 93 mg/kg ( Rat )</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Toxicologically Synergistic Products
No information available

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

Irritation
Risk of serious damage to eyes

Sensitization
May cause sensitization by skin contact

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

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>10099-74-8</td>
<td>Group 2A</td>
<td>Reasonably Anticipated</td>
<td>A3</td>
<td>X</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

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

Mutagenic Effects
No information available

Reproductive Effects
Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects
Developmental effects have occurred in experimental animals.

Teratogenicity
Teratogenic effects have occurred in experimental animals.

STOT - single exposure
Central nervous system (CNS)

STOT - repeated exposure
Kidney Liver Blood
Lead(II) nitrate

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

This product contains a chemical which is listed as a marine pollutant according to DOT

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not allow material to contaminate ground water system.

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>Not listed</td>
<td>LC50: 1.5 mg/l/96 h (Oncorhynchus mykiss)</td>
<td>Not listed</td>
<td>EC50: 0.5 - 2 mg/l/48 H (Daphnia magna)</td>
</tr>
</tbody>
</table>

Persistence and Degradability: May persist based on information available.

Bioaccumulation/ Accumulation: No information available.

Mobility: Will likely be mobile in the environment due to its 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

DOT

UN-No: UN1469
Proper Shipping Name: LEAD NITRATE
Hazard Class: 5.1
Subsidiary Hazard Class: 6.1
Packing Group: II

TDG

UN-No: UN1469
Proper Shipping Name: LEAD NITRATE
Hazard Class: 5.1
Subsidiary Hazard Class: 6.1
Packing Group: II

IATA

UN-No: UN1469
Proper Shipping Name: LEAD NITRATE
Hazard Class: 5.1
Subsidiary Hazard Class: 6.1
Packing Group: II

IMDG/IMO

UN-No: UN1469
Proper Shipping Name: LEAD NITRATE
Hazard Class: 5.1
Subsidiary Hazard Class: 6.1
Packing Group: II

15. Regulatory information
United States of America Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>TSCA</th>
<th>TSCA Inventory notification - Active/Inactive</th>
<th>TSCA - EPA Regulatory Flags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>10099-74-8</td>
<td>X</td>
<td>ACTIVE</td>
<td>-</td>
</tr>
</tbody>
</table>

Legend:
TSCA - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

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

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>IECSC</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>10099-74-8</td>
<td>X</td>
<td>-</td>
<td>233-245-9</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>KE-21907</td>
</tr>
</tbody>
</table>

U.S. Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>10099-74-8</td>
<td>&gt;95</td>
<td>0.1 1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Hazardous Substances</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>X</td>
<td>10 lb</td>
<td>X</td>
<td>-</td>
</tr>
</tbody>
</table>

Clean Air Act

<table>
<thead>
<tr>
<th>Component</th>
<th>HAPS Data</th>
<th>Class 1 Ozone Depleters</th>
<th>Class 2 Ozone Depleters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OSHA - Occupational Safety and Health Administration

<table>
<thead>
<tr>
<th>Component</th>
<th>Specifically Regulated Chemicals</th>
<th>Highly Hazardous Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>30 µg/m³ Action Level 50 µg/m³ TWA</td>
<td></td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Component</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA EHS RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>10 lb</td>
<td></td>
</tr>
</tbody>
</table>

California Proposition 65 This product contains the following Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
<th>Prop 65 NSRL</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>10099-74-8</td>
<td>Cancer/Developmental</td>
<td>-</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(II) nitrate</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
16. Other information

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date
07-Jul-2009
Revision Date
19-Jan-2018
Print Date
19-Jan-2018
Revision Summary
This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

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