



## Material Safety Data Sheet

Creation Date 07-Jul-2009

Revision Date 07-Jul-2009

Revision Number 1

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	<b>Lead(II) nitrate</b>
<b>Cat No.</b>	<b>L61-3, L62-12LC, L62-100, L62-500</b>
<b>Synonyms</b>	Lead dinitrate; Plumbous nitrate
<b>Recommended Use</b>	Laboratory chemicals
<b>Company</b>	<b>Emergency Telephone Number</b>
Fisher Scientific	CHEMTREC®, Inside the USA: 800-424-9300
One Reagent Lane	CHEMTREC®, Outside the USA: 703-527-3887
Fair Lawn, NJ 07410	
Tel: (201) 796-7100	

### 2. HAZARDS IDENTIFICATION

#### **DANGER!**

#### **Emergency Overview**

Oxidizer: Contact with combustible/organic material may cause fire. May cause cancer. Suspect cancer hazard. Harmful by inhalation and if swallowed. May cause eye, skin, and respiratory tract irritation. May cause central nervous system effects. May cause harm to the unborn child. Possible risk of impaired fertility. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Appearance** White

**Physical State** Solid.

**Odor** odorless

**Target Organs**

Liver, Kidney, Central nervous system (CNS), Blood, Reproductive System

#### Potential Health Effects

#### **Acute Effects**

#### Principle Routes of Exposure

**Eyes**

May cause irritation.

**Skin**

May cause irritation. May be harmful in contact with skin.

**Inhalation**

Harmful by inhalation. May cause irritation of respiratory tract.

**Ingestion**

Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### **Chronic Effects**

May cause cancer. May cause harm to the unborn child. May impair fertility. Danger of cumulative effects. May cause adverse liver effects. May cause adverse kidney effects.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Haz/Non-haz

Component	CAS-No	Weight %
Lead nitrate	10099-74-8	99

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
<b>Ingestion</b>	Do not induce vomiting. Call a physician or Poison Control Center immediately.
<b>Notes to Physician</b>	Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

<b>Flash Point</b>	No information available.
<b>Method</b>	No information available.
<b>Autoignition Temperature</b>	No information available.
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Suitable Extinguishing Media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable Extinguishing Media</b>	No information available.
<b>Hazardous Combustion Products</b>	No information available.
<b>Sensitivity to mechanical impact</b>	No information available.
<b>Sensitivity to static discharge</b>	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.

#### 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**                      **Health** 2                      **Flammability** 0                      **Instability** 2                      **Physical hazards** OX

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. 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.
<b>Environmental Precautions</b>	Should not be released into the environment.
<b>Methods for Containment and Clean Up</b>	Provide adequate ventilation. Keep combustibles (wood, paper, oil, etc) away from spilled material. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Use only under a chemical fume hood. Wear personal protective equipment. 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.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering Measures</b>	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.
<b>Exposure Guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**NIOSH IDLH:** *Immediately Dangerous to Life or Health*

### **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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	White
<b>Odor</b>	odorless
<b>Odor Threshold</b>	No information available.
<b>pH</b>	3 - 4 20% aq. sol.
<b>Vapor Pressure</b>	negligible
<b>Vapor Density</b>	No information available.
<b>Viscosity</b>	No information available.
<b>Boiling Point/Range</b>	No information available.
<b>Melting Point/Range</b>	470°C / 878°F
<b>Decomposition temperature °C</b>	470°C
<b>Flash Point</b>	No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Evaporation Rate	negligible
Specific Gravity	4.530
Solubility	Soluble in water
log Pow	No data available
Molecular Weight	331.2
Molecular Formula	N2 O6 Pb

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Oxidizer: Contact with combustible/organic material may cause fire.
<b>Conditions to Avoid</b>	Avoid dust formation. Incompatible products. Excess heat. Combustible material.
<b>Incompatible Materials</b>	Strong reducing agents, Organic materials, Powdered metals
<b>Hazardous Decomposition Products</b>	Nitrogen oxides (NOx), lead oxides
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions .</b>	None under normal processing..

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

### **Component Information**

**Irritation** No information available.

**Toxicologically Synergistic Products** No information available.

### Chronic Toxicity

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

Component	ACGIH	IARC	NTP	OSHA	Mexico
Lead nitrate	Not listed	Group 2A	Not listed	X	Not listed

**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

**Sensitization** No information available.

**Mutagenic Effects** Mutagenic effects have occurred in humans.

<b>Reproductive Effects</b>	Experiments have shown reproductive toxicity effects on laboratory animals.
<b>Developmental Effects</b>	Developmental effects have occurred in experimental animals.
<b>Teratogenicity</b>	Teratogenic effects have occurred in experimental animals..
<b>Other Adverse Effects</b>	The toxicological properties have not been fully investigated.. See actual entry in RTECS for complete information.
<b>Endocrine Disruptor Information</b>	No information available

## 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.

<b>Persistence and Degradability</b>	No information available
<b>Bioaccumulation/ Accumulation</b>	No information available
<b>Mobility</b>	No information available

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal Methods</b>	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
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## 14. TRANSPORT INFORMATION

### **DOT**

<b>UN-No</b>	UN1469
<b>Proper Shipping Name</b>	LEAD NITRATE
<b>Hazard Class</b>	5.1
<b>Subsidiary Hazard Class</b>	6.1
<b>Packing Group</b>	II

### **TDG**

<b>UN-No</b>	UN1469
<b>Proper Shipping Name</b>	LEAD NITRATE

**14. TRANSPORT INFORMATION**

**Hazard Class** 5.1  
**Subsidiary Hazard Class** 6.1  
**Packing Group** II

IATA

**UN-No** 1469  
**Proper Shipping Name** LEAD NITRATE  
**Hazard Class** 5.1  
**Subsidiary Hazard Class** 6.1  
**Packing Group** II

IMDG/IMO

**UN-No** 1469  
**Proper Shipping Name** LEAD NITRATE  
**Hazard Class** 5.1  
**Subsidiary Hazard Class** 6.1  
**Packing Group** II

**15. REGULATORY INFORMATION**

**International Inventories**

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Lead nitrate	X	X	-	233-245-9	-		X	X	X	X	KE-21907 X

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

**TSCA 12(b)** Not applicable

**SARA 313**

Not applicable

**SARA 311/312 Hazardous Categorization**

Acute Health Hazard No  
 Chronic Health Hazard No  
 Fire Hazard No  
 Sudden Release of Pressure Hazard No  
 Reactive Hazard No

**Clean Water Act**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Lead nitrate	X	10 lb	-	-

**Clean Air Act**

Not applicable

**OSHA**

Not applicable

**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)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Lead nitrate	10 lb	-

**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65	Prop 65 NSRL
Lead nitrate	10099-74-8	Cancer/Developmental	-

**State Right-to-Know**

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

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y  
 DOT Marine Pollutant Y  
 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

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

C Oxidizing materials

D1B Toxic materials

D2A Very toxic materials

**16. OTHER INFORMATION**

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**Creation Date** 07-Jul-2009

**Print Date** 07-Jul-2009

**Revision Summary** "\*\*\*\*", and red text indicates revision

**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.

**End of MSDS**