



Cambridge Isotope Laboratories, Inc.  
50 Frontage Road  
Andover, MA 01810

Number:  
Issue Date

PBLM-2375  
04/04/11

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## MATERIAL SAFETY DATA SHEET

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### 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description LEAD-207 NITRATE (207Pb)

Cambridge Isotope Laboratories, Inc.  
50 Frontage Rd  
ANDOVER, MA 01810  
USA

E-mail [cilsales@isotope.com](mailto:cilsales@isotope.com)  
Web Site [www.isotope.com](http://www.isotope.com)

#### Phone Numbers

Emergency Contact Chemtrec  
Emergency Phone 1-800-424-9300 (24 hours)  
  
Customer Service 1-800-322-1174 (8:30-5:30 EST)  
Phone  
Transportation 1-202-483-7616 (24 hours)

### 2 HAZARDS IDENTIFICATION

#### OSHA Hazards

Oxidizer, Carcinogen, Target Organ Effect, Toxic by inhalation

#### GHS Classification

Oxidizing solids (Category 3)  
Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 4)  
Reproductive toxicity (Category 2)  
Hazardous to the aquatic environment, Acute hazard (Category 1)

#### GHS Label Information

Signal Word Danger

#### Hazards Identification

Flame over circle  
Health hazard  
Exclamation mark  
Environment

#### Hazard Statement(s)



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May intensify fire; oxidizer.  
Harmful if swallowed or if inhaled.  
Suspected of damaging fertility or the unborn child.  
Very toxic to aquatic life.  
May intensify fire; oxidizer.

### Precautionary Statement(s)

Keep/Store away from clothing/combustible materials.  
Avoid release to the environment.  
Use personal protective equipment as required.

### HMIS Ratings

Chronic Health	*
Physical	2
Flammability	0
Health	2

### NFPA Codes

Fire	0
Health	2
Reactivity	2
Special	OX

### Potential Health Effects

Eyes	Contact may cause eye irritation.
Ingestion	May be harmful if swallowed.
Inhalation	Toxic if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Composition / Information on Ingredients

Chemical Formula	Pb(NO <sub>3</sub> ) <sub>2</sub>
Molecular Weight	330.99
CAS No.	10099-74-8 (unlabeled)
EC No.	233-245-9
Index No.	082-001-00-6

## 4 FIRST AID MEASURES

### First Aid Measures

Eyes	Flush eyes with water as a precaution.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.



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Inhalation	If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin	Wash with soap and plenty of water. Consult a physician.
Additional Information	Move out of dangerous area. Consult a physician and show this safety data sheet.

### 5 FIRE FIGHTING MEASURE

#### Fire Fighting Measures

Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Fire Fighting Equipment	Wear self contained breathing apparatus for fire fighting if necessary.
Fire Fighting Procedures	Use water spray to cool unopened containers.

### 6 ACCIDENTAL RELEASE MEASURES

#### Accidental Release Measures

Personal Precautions	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleanup	Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 7 HANDLING AND STORAGE

#### Precautions for Safe Handling

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition- No smoking. Keep away from combustible material.
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#### Conditions for Safe Storage



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Storage Store at room temperature away from light and moisture.

### 8 EXPOSURE CONTROL / PERSONAL PROTECTION

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

CHEMICAL NAME	TWA	OSHA PEL	ACGIH TLV
LEAD-207 NITRATE		0.07 mg/M <sup>3</sup>	0.05 mg/M <sup>3</sup>

Personal Protection

Eyes - Face Wear safety glasses with side shields (or goggles) and a face shield.

Skin Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory When appropriate, use NIOSH/CEN approved respirator.

Protective Clothing Wear suitable protective clothing and gloves.

Work Hygienic Practices Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties (Unlabeled Compound)

Form Solid, Crystals with lumps

Color White

pH No data available

Melting Point 470 °C (878 °F) - dec

Boiling Point No data available

Flashpoint No data available

Lower Explosion Limit No data available

Upper Explosion Limit No data available

Density 4.53 g/cm<sup>3</sup>

Solubility in Water 500 g/l

Auto Ignition Temperature No data available



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### 10 STABILITY AND REACTIVITY

#### Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
Conditions to Avoid	Not available
Hazardous decomposition products	Formed under fire conditions: nitrogen oxides, Lead oxides
Materials to avoid	Strong reducing agents, Organic materials, Powdered metals

### 11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity

Serious Damage/Eye Irritation No data available

Skin Corrosion/Irritation No data available

Inhalation No data available

Respiratory or Skin Sensitization Not available

Germ Cell Mutagenicity Not available

IARC NTP 2A - Group 2A: Probably carcinogenic to humans.  
Reasonably anticipated to be a human carcinogen.

Reproductive Toxicity Suspected human reproductive toxicant. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

#### Specific Target Organ Toxicity

Single Exposure No data available  
Repeated Exposure No data available

#### Signs and Symptoms of Exposure

Embryo- and Feto- mortality  
The chemical, physical, and toxicological properties have not been thoroughly investigated.



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### Other Information

RTECS                    OG2100000

### 12 ECOLOGICAL INFORMATION

#### Toxicity

Toxicity to Fish            Oncorhynchus mykiss (rainbow trout) - 1.5 mg/l - 96 h  
LC50

Toxicity to Daphnia        Daphnia magna (Water flea) - 0.5 - 2.0 mg/l - 48 h  
and Other Aquatic  
Invertebrates EC50

Persistence and            Not available  
Degradability

Bioaccumulative            Not available  
Potential

Mobility in Soil            Not available

PBT and vPvB              Not available  
Assessment

Other Adverse              An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Effects                        Very toxic to aquatic life with long lasting effects.

### 13 DISPOSAL CONSIDERATIONS

#### Disposal Considerations

Product Disposal            Waste materials should be disposed of under conditions which meet Federal, State, and Local  
environmental control regulations.

### 14 TRANSPORT INFORMATION

#### Transportation Information-DOT/IATA/IMDG

UN Number                 1469  
Prop. Ship. Name            Lead nitrate  
Hazard Class                5.1 (6.1)  
Packing Group              II  
Reportable Quantity        10 lbs  
(RQ) DOT US



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Marine Pollutant      Yes  
Poison Inhalation    No  
Hazard

### 15 REGULATORY INFORMATION

#### Regulatory Information

Oxidizer, Carcinogen, Target Organ Effect, Toxic by inhalation

#### SARA

Sara 302                      No chemicals in this material are subject to the reporting requirements.  
Component  
Sara 313                      Yes  
Component

#### SARA 311/312 Hazards

Reactivity (Y/N)      Y  
Acute (Y/N)              Y  
Chronic (Y/N)           Y

#### STATE REGULATIONS

Massachusetts          Yes  
Right to Know  
Pennsylvania Right    Yes  
to Know  
New Jersey Right      Yes  
to Know

California                      WARNING! This product contains a chemical known by the state of California to cause cancer.  
Proposition 65

#### Canada

DSL Status                      All components are on the Canadian DSL list.

#### EU

Hazard                              Toxic. Dangerous for environment.

#### Safety Statements

Avoid exposure - obtain special instructions before use.



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In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
Avoid release to the environment. Refer to special instructions/safety data sheet. This material and its container must be disposed of as hazardous waste.

### Risk Statements

May cause harm to the unborn child.  
Harmful by inhalation and if swallowed.  
Danger of cumulative effects.  
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Possible risk of impaired fertility.

### 16 OTHER INFORMATION

Additional MSDS Information      This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Approved On                      04/04/11  
Version Number                 1