

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.19.2014

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Lead Nitrate,

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Lead Nitrate,

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25382

Recommended uses of the product and restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

Fisher Science Education
6771 Silver Crest Road, Nazareth, PA 18064
(724)517-1954

Emergency telephone number:

Fisher Science Education
Emergency Telephone No.: 800-535-5053

SECTION 2: Hazards identification

Classification of the substance or mixture:



Oxidizing

Oxidizing solids, category 2



Health hazard

Reproductive toxicity, category 1A

Specific target organ toxicity following repeated exposure, category 2



Corrosive

Serious eye damage, category 1



Irritant

Acute toxicity (oral, dermal, inhalation), category 4



Environmentally Damaging

Acute hazards to the aquatic environment, category 1

Chronic hazards to the aquatic environment, category 1

Ox solid. 2.

AcTox Oral. 4.

AcTox Inhaln. 4.

Eye Damage. 1.

Repr Tox. 1A.

Specific Target. Organ tox. 2.

Aquatic AcTox. 1.

Aquatic ChrTox. 1.

Signal word: Danger

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Hazard statements:

- May intensify fire; oxidizer.
- Causes serious eye damage.
- Harmful if swallowed.
- Harmful if inhaled.
- May cause damage to organs through prolonged or repeated exposure.
- May damage fertility or the unborn child.
- Very toxic to aquatic life with long lasting effects.

Precautionary statements:

- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read label before use.
- Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Take any precaution to avoid mixing with combustibles.
- Wash skin thoroughly after handling.
- Keep/Store away from clothing/combustible materials.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Collect spillage.
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- Immediately call a POISON CENTER or doctor/physician.
- In case of fire: Use agents recommended in section 5 for extinction.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.
- Continue rinsing.
- Rinse mouth.
- Store locked up.
- Dispose of contents and container as instructed in Section 13.

Other Non-GHS Classification:

WHMIS



NFPA/HMIS

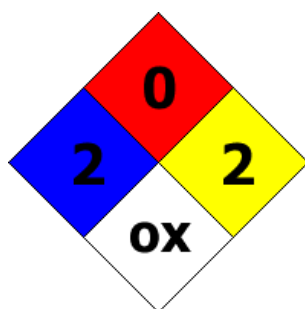
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NFPA SCALE (0-4)

Health	2
Flammability	0
Physical Hazard	2
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3: Composition/information on ingredients

Ingredients:

CAS 10099-74-8

Lead Nitrate

>99 %

Percentages are by weight

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Get medical aid immediately. Loosen clothing as necessary and position individual in a comfortable position. DO NOT use mouth-to-mouth resuscitation without a barrier device. If breathing is difficult, give oxygen.

After skin contact:

Get medical assistance. Flush with water for 15 minutes.

After eye contact:

Protect unexposed eye. If able remove contact lenses while rinsing. Immediately rinse or flush exposed eye gently using water for 15-20 minutes. Immediately seek medical attention.

After swallowing:

Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Contact a poison control center or physician immediately. Dilute with milk or water.

Most important symptoms and effects, both acute and delayed:

Vomiting. Diarrhea. Irritation- all routes of exposure. Nausea. Headache. Shortness of breath. Harmful if inhaled or swallowed. May cause harm to the unborn child. Possible risk of impaired fertility. May cause cancer. May cause central nervous system effects. May cause adverse liver and kidney effects. Danger of cumulative effects.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

Unsuitable extinguishing agents: None

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Special hazards arising from the substance or mixture:

Nitrogen oxides. Lead oxides. Thermal decomposition can lead to release of irritating gases and vapors. Strong oxidizer. Contact with other material may cause a fire. Poisonous gases may be produced in fire.

Advice for firefighters:

Protective equipment:

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Wear protective eyewear, gloves, and clothing. Use normal procedures. Use protective clothing. Use NIOSHapproved breathing equipment.

Additional information (precautions):

Avoid contact with skin, eyes, and clothing. Avoid generating dust. Ensure adequate ventilation.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Keep product and empty container away from heat and sources of ignition. Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not ingest or inhale. Avoid dust formation. Keep away from combustible materials. Use spark-proof tools and explosion-proof equipment. Ensure adequate ventilation.

Environmental precautions:

Prevent from reaching drains, sewer, or waterway. Dust deposits should not be allowed to accumulate on surfaces. Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment. Do not release into the environment. Collect contaminated soil for characterization per Section 13. Marine pollutant.

Methods and material for containment and cleaning up:

Sweep up and containerize for disposal. Avoid generating dust. Always obey local regulations. Contain spillage and then collect with an electrically protected vacuum cleaner or by wet-brushing. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. If necessary use trained response staff or contractor. Keep combustibles (wood, paper, oil, etc..) away from spilled material.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Avoid contact with skin, eyes, and clothing. Use only in well ventilated areas. Wash hands after handling. Follow Chemical Hygiene Plan. Wash hands before breaks and immediately after handling the product. Use only under a chemical fume hood. Keep from contact with combustible materials. Do not breathe dust. Do not inhale gases, fumes, dust, mist, vapor, and aerosols. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Do not eat, drink, smoke, or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:

Store with like hazards. Store away from food. Keep product and empty container away from heat and sources of ignition. Keep containers tightly closed in a cool, dry, well-ventilated area away from combustible materials. Store locked up.

SECTION 8: Exposure controls/personal protection



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Control Parameters:	10099-74-8, Lead nitrate, ACGIH TLV (as Pb): 0.05mg/m ³ as TWA.
Appropriate Engineering controls:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only under a chemical fume hood.
Respiratory protection:	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. Local/general exhaust or process enclosure is recommended. A dusk mask respirator can be worn if necessary to minimize exposure to dust particles.
Protection of skin:	Wear protective clothing. Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Wash off with soap and plenty of water. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Complete suit protecting against chemicals. Select protective clothing according to the concentration and amount of the dangerous substance at the specific workplace. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
Eye protection:	Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses with side shields or goggles.
General hygienic measures:	Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Do not inhale gases, fumes, dust, mist, vapor, and aerosols. Before wearing wash contaminated clothing. Wash hands and exposed skin with soap and plenty of water.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	White solid	Explosion limit lower:	No Information
		Explosion limit upper:	No Information
Odor:	Odorless	Vapor pressure at 20°C:	Not Applicable
Odor threshold:	Not Applicable	Vapor density:	Not Applicable
pH-value:	3-4 (20% aqueous sol.)	Relative density:	Not Applicable
Melting/Freezing point:	470°C	Solubilities:	Soluble in water: 500 g/l. Soluble in methanol: 13.3 g/l. Soluble in ethanol: 0.4 g/l.
Boiling point/Boiling range:	Not Applicable	Partition coefficient (n-octanol/water):	Not Applicable
Flash point (closed cup):	Not Applicable	Auto/Self-ignition temperature:	Not Applicable

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Evaporation rate:	Not Applicable	Decomposition temperature:	470°C
Flammability (solid, gaseous):	No Information	Viscosity:	a. Kinematic: Not Applicable b. Dynamic: Not Applicable
Density at 20°C:	No Information Specific Gravity: :4.53		

SECTION 10: Stability and reactivity

Reactivity: None

Chemical stability:

Oxidizer: Contact with combustible or organic material may cause fire.

Possible hazardous reactions:

Stable under normal conditions.

Conditions to avoid:

Dust generation. Excessive heat. Incompatible materials.

Incompatible materials:

Strong reducing agents. Organic materials. Powdered metals.

Hazardous decomposition products:

Carbon oxides (CO, CO₂). Nitrogen oxides (NO, NO₂). Lead oxides. Lead fumes.

SECTION 11: Toxicological information

Acute Toxicity:

Oral:

10099-74-8 LD50 Rat 93 mg/kg

Chronic Toxicity: No additional information.

Corrosion Irritation: No additional information.

Sensitization: No additional information.

Numerical Measures: No additional information.

Carcinogenicity:

IARC : Group 2A (Probably Carcinogenic to Humans) - Monograph 87 [2006]; Supplement 7 [1987]; Monograph 23 [1980] (Lead nitrate - 10099-74-8)

OSHA - Hazard Communication Carcinogens (list): Present - Lead nitrate (10099-74-8)

California: This chemical is a known carcinogen in California

Mutagenicity:

Mutagenic effects have occurred in humans.

Reproductive Toxicity:

Toxicity effects have occurred in lab animals.

SECTION 12: Ecological information

Ecotoxicity:

Aquatic Tox.: LC50 - Oncorhynchus mykiss (rainbow trout) - 1.5 mg/l - 96.0 h

Aquatic Tox.: LC50 - Cyprinus carpio (Carp) - 0.4 - 1.3 mg/l - 96.0 h

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Aquatic Tox.: EC50 - Daphnia magna (Water flea) - 0.5 - 2.0 mg/l - 48 h

Persistence and degradability: No additional information.

Bioaccumulative potential: No additional information.

Mobility in soil: No additional information.

Other adverse effects:

Very toxic to aquatic life with long lasting effects. This chemical is a marine pollutant. Do not release into the environment.

SECTION 13: Disposal considerations

Waste disposal recommendations:

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

SECTION 14: Transport information

US DOT

UN Number:

ADR, ADN, DOT, IMDG, IATA

1469

Limited Quantity Exception:

None

Bulk:

RQ (if applicable): None

Proper shipping Name: Lead nitrate.

Hazard Class: 5, 6

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None

Non Bulk:

RQ (if applicable): None

Proper shipping Name: Lead nitrate.

Hazard Class: 5, 6

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None



SECTION 15: Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Reactive, Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

10099-74-8 Lead nitrate; Lead Compounds (N420).

RCRA (hazardous waste code):

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None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

10099-74-8 For metals listed under CERCLA (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, and zinc), no reporting of releases of the solid form is required if the mean diameter of the pieces of the solid metal rele 10 lbs.

Proposition 65 (California):

Chemicals known to cause cancer:

10099-74-8 Lead Nitrate.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

10099-74-8 Lead nitrate.

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients are listed.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases: None

Abbreviations and Acronyms:

IMDG International Maritime Code for Dangerous Goods.
PNEC Predicted No-Effect Concentration (REACH).
CFR Code of Federal Regulations (USA).
SARA Superfund Amendments and Reauthorization Act (USA).
RCRA Resource Conservation and Recovery Act (USA).
TSCA Toxic Substances Control Act (USA).

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NPRI National Pollutant Release Inventory (Canada).
DOT US Department of Transportation.
IATA International Air Transport Association.
GHS Globally Harmonized System of Classification and Labelling of Chemicals.
ACGIH American Conference of Governmental Industrial Hygienists.
CAS Chemical Abstracts Service (division of the American Chemical Society).
NFPA National Fire Protection Association (USA).
HMIS Hazardous Materials Identification System (USA).
WHMIS Workplace Hazardous Materials Information System (Canada).
DNEL Derived No-Effect Level (REACH).

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