Lead Nitrate, 0.1M

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

Product name: **Lead Nitrate, 0.1M**

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: **S25858**

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:

Serious eye damage, category 1
Specific target organ toxicity following repeated exposure, category 2
Reproductive toxicity, category 1A
Chronic hazards to the aquatic environment, category 1
Acute hazards to the aquatic environment, category 1
Oxidizing liquids, category 2

Hazard statements:

May intensify fire; oxidizer.
Causes serious eye damage.
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.
Very toxic to aquatic life.

Precautionary statements:

If medical advice is needed, have product container or label at hand.
Read label before use.
Avoid release to the environment.
Take any precaution to avoid mixing with combustibles.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Use personal protective equipment as required.
Keep/Store away from clothing/…/combustible materials.
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.
In case of fire: Use agents recommended in section 5 for extinction.
Immediately call a POISON CENTER or doctor/physician.
Get medical advice/attention if you feel unwell.

If exposed or concerned: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
Store locked up.
Dispose of contents/container to ....
May form combustible dust concentrations in air (during processing).

Other Non-GHS Classification:

WHMIS

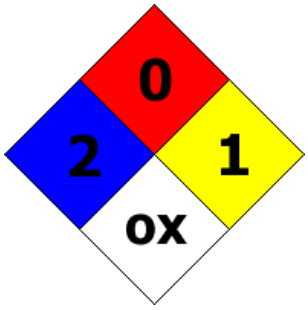
C 

D1B 

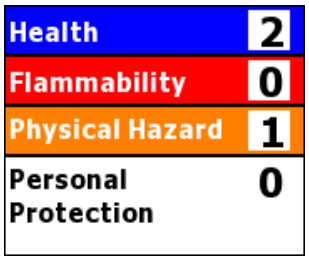
D2A 

D2B 

NFPA/HMIS



NFPA SCALE (0-4)



HMIS RATINGS (0-4)

SECTION 3: Composition/information on ingredients

Ingredients:		
CAS 10099-74-8	Lead Nitrate	<4 %
CAS 7732-18-5	DI Water	>96 %
		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. Loosen clothing as necessary and position individual in a comfortable position. Consult a physician.

After skin contact:

Wash off with soap and plenty of water. Consult a physician.

After eye contact:

Rinse or flush exposed eye gently using water for 15-20 minutes. Protect unexposed eye. If able remove contact lenses while rinsing. Consult a physician.

After swallowing:

Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.

Most important symptoms and effects, both acute and delayed:

Irritation. Nausea. Headache. Shortness of breath.

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

Special hazards arising from the substance or mixture:

Nitrogen oxides. Lead oxides. Thermal decomposition can lead to release of irritating gases and vapors.

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 eyeware, gloves, and clothing.

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 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.

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.

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. 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 container tightly closed in a cool, dry, and well-ventilated area.

SECTION 8: Exposure controls/personal protection



Control Parameters:	10099-74-8, Lead nitrate, 0.05 mg/m3 US ACGIH Threshold Limit Values (TLV).
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. Use under a fume hood. 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).
Respiratory protection:	Normal ventilation is adequate. 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.
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):	Clear, colorless liquid	**Explosion limit lower**: **Explosion limit upper**:	No Information No Information
Odor:	Odorless	**Vapor pressure**:	14 mm Hg @ 16C
Odor threshold:	Not Applicable	**Vapor density**:	0.7(of water)
pH-value:	3-4 (20% aqueous sol.)	**Relative density**:	1.00g/mL @ 20C
Melting/Freezing point:	Approx 0C	**Solubilities**:	Material is water soluble.
Boiling point/Boiling range:	Approx 100C	**Partition coefficient (n-octanol/water)**:	Not Applicable
Flash point (closed cup):	Not Applicable	**Auto/Self-ignition temperature**:	Not Applicable
Evaporation rate:	Not Applicable	**Decomposition temperature**:	470°C
Flammability (solid,gaseous):	No Information	**Viscosity**:	a. Kinematic: Not Applicable b. Dynamic: Not Applicable
Density: No Information			

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: No additional information.	
Chronic Toxicity: No additional information.	
Corrosion Irritation: No additional information.	
Sensitization:	No additional information.
Single Target Organ (STOT):	No additional information.

Numerical Measures:	No additional information.
Carcinogenicity:	IARC:- Group 2A:: Probably carcinogenic to humans (Lead nitrate)
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
Aquatic Tox.: EC50 - Daphnia magna (Water flea) - 0.5 - 2.0 mg/l - 48 h

Persistence and degradability: None
Bioaccumulative potential: None
Mobility in soil: None
Other adverse effects:

Very toxic to aquatic life with long lasting effects.

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

UN-Number:

3139

UN proper shipping name:

Oxidizing liquid

Transport hazard class(es): None
Packing group: II
Environmental hazard:

DOT Reportable Quantity (RQ): 10 lbs. IMDG: Marine pollutant.

Transport in bulk: Not Applicable
Special precautions for user: 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.

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

None of the ingredients are listed.

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

10099-74-8 Lead Nitrate 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%):

None of the ingredients are listed.

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:

IMDGInternational Maritime Code for Dangerous Goods.
PNECPredicted No-Effect Concentration (REACH).
CFRCode of Federal Regulations (USA).

SARASuperfund Amendments and Reauthorization Act (USA).
RCRAResource Conservation and Recovery Act (USA).
TSCAToxic Substances Control Act (USA).
NPRINational Pollutant Release Inventory (Canada).
DOTUS Department of Transportation.
IATAInternational Air Transport Association.
GHSGlobally Harmonized System of Classification and Labelling of Chemicals.
ACGIHAmerican Conference of Governmental Industrial Hygienists.
CASChemical Abstracts Service (division of the American Chemical Society).
NFPANational Fire Protection Association (USA).
HMISHazardous Materials Identification System (USA).
WHMISWorkplace Hazardous Materials Information System (Canada).
DNELDerived No-Effect Level (REACH).

Effective date: 12.19.2014
Last updated: 06.17.2015