## Lead nitrate

## SECTION 1: Identification

### Product identifier

**Product name:** Lead nitrate
**Product code:** LN4000

### Recommended use of the product and restriction on use

**Relevant identified uses:** Laboratory Chemicals
**Uses advised against:** Not determined or not applicable.
**Reasons why uses advised against:** Not determined or not applicable.

### Manufacturer or supplier details

**Manufacturer:**
**United States**
AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover, PA 17331
1-717-632-1291

### Emergency telephone number:

**United States**
**ChemTel Inc**
+1(800)255-3924
+1(813)248-0585

## SECTION 2: Hazard identification

### GHS classification:

Oxidizing solids, category 2
Acute toxicity (oral), category 4
Acute toxicity (inhalation), category 4
Serious eye damage, category 1
Reproductive toxicity, category 1A
Specific target organ toxicity - repeated exposure, category 2
Acute aquatic hazard, category 1
Chronic aquatic hazard, category 1

### Label elements

**Hazard pictograms:**

**Signal word:** Danger

### Hazard statements:

H272 May intensify fire; oxidizer
H302 Harmful if swallowed
H332 Harmful if inhaled
H318 Causes serious eye damage

H360 May damage fertility or the unborn child
H373 May cause damage to organs through prolonged or repeated exposure
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

**Precautionary statements:**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
P220 Keep/Store away from clothing/combustible materials
P221 Take any precaution to avoid mixing with combustibles
P280 Wear protective gloves/protective clothing/eye protection/face protection
P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P273 Avoid release to the environment
P370+P378 In case of fire: Use agents recommended in section 5 for extinction
P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
P304+P340+P312 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell
P305+P351+P338+P310 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.
P308+P313 If exposed or concerned: Get medical advice/attention
P391 Collect spillage
P405 Store locked up
P501 Dispose of contents and container as instructed in Section 13

**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

| Identification | Name | Weight % |
|---|---|---|
| CAS number: 10099-74-8 | Lead nitrate | 100 |

**Additional Information:** None

## SECTION 4: First-aid measures

### Description of first-aid measures

**General notes:**

Not determined or not available.

**After inhalation:**

Loosen clothing as necessary and position individual in a comfortable position
Maintain an unobstructed airway
Get medical advice/attention if you feel unwell
Move to fresh air
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

**After skin contact:**

Rinse affected area with soap and water
If symptoms develop or persist, seek medical attention

**After eye contact:**
Rinse/flush exposed eye(s) gently using water for 15-20 minutes
If symptoms develop or persist, seek medical attention
Remove contact lens(es) if able to do so during rinsing
Immediately call a POISON CONTROL CENTER or seek medical attention

**After ingestion:**
Rinse mouth thoroughly
Seek medical attention if irritation, discomfort, or vomiting persists
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell
Do not induce vomiting
Rinse mouth and then drink plenty of water

**Most important symptoms and effects, both acute and delayed**

**Acute symptoms and effects:**
Not determined or not available.

**Delayed symptoms and effects:**
Not determined or not available.

**Immediate medical attention and special treatment**

**Specific treatment:**
Not determined or not available.

**Notes for the doctor:**
Not determined or not available.

## SECTION 5: Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media:**
Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

**Unsuitable extinguishing media:**
Not determined or not applicable.

**Specific hazards during fire-fighting:**
Thermal decomposition can lead to release of irritating gases and vapors
Will release oxygen when heated, intensifying a fire

**Special protective equipment for firefighters:**
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

**Special precautions:**
Carbon monoxide and carbon dioxide may form upon combustion
Heating causes a rise in pressure, risk of bursting and combustion

## SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**
Ensure adequate ventilation
Ensure air handling systems are operational
Wear protective eye wear, gloves and clothing

**Lead nitrate**

**Environmental precautions:**

Should not be released into the environment
Prevent from reaching drains, sewer or waterway

**Methods and material for containment and cleaning up:**

Wear protective eye wear, gloves and clothing
Sweep or scoop up solid material while minimizing dust generation
Dispose of contents / container in accordance with local regulations

**Reference to other sections:**

Not determined or not applicable.

## SECTION 7: Handling and storage

**Precautions for safe handling:**

Use only with adequate ventilation.
Avoid breathing dust.
Do not eat, drink, smoke or use personal products when handling chemical substances.

**Conditions for safe storage, including any incompatibilities:**

Keep container tightly sealed.
Keep container dry.
Store in a cool, well-ventilated area.
Store away from flammable and combustible materials (paper, wood).
Store away from reducing agents (zinc, alkaline metals, formic acid).

## SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

**Occupational Exposure limit values:**

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|---|---|---|---|
| ACGIH | Lead nitrate | 10099-74-8 | ACGIH TLV: 0.05 mg/m3 as Pb |
| United States (OSHA) | Lead nitrate | 10099-74-8 | OSHA PEL TWA value 0.05 mg/m3 as Pb |

**Biological limit values:**

No biological exposure limits noted for the ingredient(s).

**Information on monitoring procedures:**

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.
Biological monitoring may also be appropriate for some substances.

**Appropriate engineering controls:**

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

**Personal protection equipment**

**Eye and face protection:**

Safety goggles or glasses, or appropriate eye protection.

**Lead nitrate**

**Skin and body protection:**
Select glove material impermeable and resistant to the substance.
Wear appropriate clothing to prevent any possibility of skin contact.

**Respiratory protection:**
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**General hygienic measures:**
Avoid contact with skin, eyes and clothing.
Wash hands before breaks and at the end of work.
Wash contaminated clothing before reuse.

## SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance (physical state, color):** | White solid |
| **Odor:** | Odorless |
| **Odor threshold:** | Not determined or not available. |
| **pH-value:** | 3 - 4 (20% aq. sol.) |
| **Melting/Freezing point:** | 470°C |
| **Boiling point/range:** | Not determined or not available. |
| **Flash point:** | Not determined or not available. |
| **Evaporation rate:** | Not determined or not available. |
| **Flammability (solid, gaseous):** | Not determined or not available. |
| **Explosion limit upper:** | Not determined or not available. |
| **Explosion limit lower:** | Not determined or not available. |
| **Vapor pressure:** | Not determined or not available. |
| **Vapor density:** | Not determined or not available. |
| **Density:** | Not determined or not available. |
| **Relative density:** | 4.53 g/cm³ |
| **Solubilities:** | Soluble in water: 500 g/l; Soluble in methanol: 13.3 g/l; Soluble in ethanol: 0.4 g/l |
| **Partition coefficient (n-octanol/water):** | Not determined or not available. |
| **Auto/Self-ignition temperature:** | Not determined or not available. |
| **Decomposition temperature:** | 470°C |
| **Dynamic viscosity:** | Not determined or not available. |
| **Kinematic viscosity:** | Not determined or not available. |
| **Explosive properties** | Not determined or not available. |
| **Oxidizing properties** | Material is an oxidizer. |

**Other information**

| | |
|---|---|
| **Molecular weight** | 331.20 g/mol |

## SECTION 10: Stability and reactivity

**Reactivity:**

**Lead nitrate**

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

**Chemical stability:**
Stable under normal conditions of use and storage.

**Possibility of hazardous reactions:**
None under normal conditions of use and storage.

**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**

**Assessment:** Harmful if swallowed Harmful if inhaled

**Product data:** No data available.

**Substance data:**

| Name | Route | Result |
|---|---|---|
| Lead nitrate | oral | LDLo guinea pig 500mg/kg |

**Skin corrosion/irritation**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Serious eye damage/irritation**

**Assessment:** Causes serious eye damage

**Product data:** No data available.

**Substance data:**

| Name | Result |
|---|---|
| Lead nitrate | Causes serious eye damage |

**Respiratory or skin sensitization**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:**

| Name | Result |
|---|---|
| Lead nitrate | Sensitization possible through skin contact |

**Carcinogenicity**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

**Germ cell mutagenicity**

## Lead nitrate

**Assessment:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:** No data available.

**Reproductive toxicity**
**Assessment:** May damage fertility or the unborn child
**Product data:** No data available.
**Substance data:**

| Name | Result |
|---|---|
| Lead nitrate | Suspected of damaging fertility or the unborn child |

**Specific target organ toxicity (single exposure)**
**Assessment:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:**

| Name | Result |
|---|---|
| Lead nitrate | Specific target organ toxicity - repeated exposure. Causes damage to organs through prolonged or repeated exposure |

**Specific target organ toxicity (repeated exposure)**
**Assessment:** May cause damage to organs through prolonged or repeated exposure
**Product data:** No data available.
**Substance data:** No data available.

**Aspiration toxicity**
**Assessment:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

## SECTION 12: Ecological information

**Acute (short-term) toxicity**
**Assessment:** Very toxic to aquatic life
**Product data:** No data available.
**Substance data:**

| Name | Result |
|---|---|
| Lead nitrate | EC50 - Daphnia magna - 1815 ug/L - 48 h |
| | LC50 - Pimephales promelas - 283 mg/L 48hr |

**Chronic (long-term) toxicity**
**Product data:** No data available.
**Substance data:** No data available.

**Persistence and degradability**
**Product data:** No data available.
**Substance data:** No data available.

**Bioaccumulative potential**

## Lead nitrate

**Product data:** No data available.
**Substance data:** No data available.

**Mobility in soil**

**Product data:** No data available.
**Substance data:** No data available.

**Other adverse effects:** No data available.

## SECTION 13: Disposal considerations

**Disposal methods:**

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

## SECTION 14: Transport information

**Canadian Transportation of Dangerous Goods (TDG)**

| | |
|---|---|
| **UN number** | UN1469 |
| **UN proper shipping name** | Lead nitrate |
| **UN transport hazard class(es)** | 5.1 (6.1)   |
| **Packing group** | II |
| **Environmental hazards** | Marine Pollutant |
| **Special precautions for user** | None |

**International Maritime Dangerous Goods (IMDG)**

| | |
|---|---|
| **UN number** | UN1469 |
| **UN proper shipping name** | Lead nitrate |
| **UN transport hazard class(es)** | 5.1 (6.1)   |
| **Packing group** | II |
| **Environmental hazards** | Marine Pollutant |
| **Special precautions for user** | None |

**International Air Transport Association Dangerous Goods Regulations (IATA-DGR)**

| | |
|---|---|
| **UN number** | UN1469 |
| **UN proper shipping name** | Lead nitrate |
| **UN transport hazard class(es)** | 5.1 (6.1)   |
| **Packing group** | II |
| **Environmental hazards** | Marine Pollutant |

**Lead nitrate**

| | |
|---|---|
| **Special precautions for user** | None |

## SECTION 15: Regulatory information

**Canada regulations**

**Domestic substances list (DSL):**

| | | |
|---|---|---|
| 10099-74-8 | Lead nitrate | Listed |

**Non-domestic substances list (NDSL):** Not determined.

## SECTION 16: Other information

**Abbreviations and Acronyms:** None

**Disclaimer:**

This product has been classified in accordance with the Canadian Hazardous Products Regulations and WHMIS 2015. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 3-0-3-ox

**HMIS:** 3-0-3-X

**Initial preparation date:** 12.27.2017

**End of Safety Data Sheet**