



Material Safety Data Sheet

Lead Nitrate Solution

Section 01 – Product and Company Information

Product Name..... Lead Nitrate Solution
Synonyms Lead II Nitrate / Lead Dinitrate / Plumbous Nitrate
Product Use Mineral Processing Aid
Supplier Name..... LogiChem Pty Ltd incorporating Jostek Chemicals
Address 13 Brinsden Road, off Craig Road, West Kalgoorlie, Australia
PO Box 878 Kalgoorlie WA 6433 Australia
Phone..... (08) 9091-7708
Fax..... (08) 9091-7709
24 Hour Emergency Phone ... (08) 9091-7708

Section 02 – Composition

Chemical Components	Cas No.	Proportion
Lead Nitrate	10099-74-8	40% w/v

Section 03 – Hazards Identification

Hazardous According to Criteria of Worksafe Australia

Hazard Category Toxic

Risk Phrases R61(1) May cause harm to the unborn child
R62(3) Possible risk of impaired fertility
R22 Also harmful if swallowed
R33 Danger of cumulative effects

Safety Phrases S53 Avoid exposure – obtain and follow safe work instructions
S45 In case of accident or if you feel unwell seek medical advice immediately

Classified as Dangerous Goods According to the Criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road or Rail.

Poison Schedule (Aust) / Toxic Substance (NZ) S6

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Section 04 – First Aid Measures

- Ingestion** Rinse mouth with water. Give plenty of water to drink then induce vomiting using fingers or Ipecac Syrup APF. Seek prompt medical attention.
Never give anything by mouth to an unconscious person
- Eye** Treat as a corrosive liquid. Flush thoroughly with water for 15 minutes lifting lower and upper eyelids. Seek medical attention.
- Skin** Quickly remove contaminated clothing. Wipe off excess from skin. Wash skin with soapy water for 15 minutes. Wash clothes promptly.
- Inhalation** Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.
- Advice to Doctor** Treat symptomatically. Consult Poisons Information Centre.

Section 05 – Fire Fighting Measures

- Flammability** Solution is not combustible.
If subjected to heating in a fire the lead nitrate may start to crystallise from the solution as the water evaporates. This crystalline material could act as an oxidising agent and assist combustion of other materials.
- Extinguishing Media** Use any means suitable for extinguishing surrounding fire.
Do not allow water run-off to enter sewers or waterways.
- Fire fighting procedures** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- Fire explosion hazard** As indicated above, material crystallised out of the solution by heat could assist combustion in a fire, especially in contact with incompatible materials such as strong reducing agents and finely powdered metals. Dry lead nitrate omits toxic fumes under fire conditions.

Section 06 – Accidental Release Measures

- Leak / Spill** Wear protective equipment to prevent skin and eye exposure to the solution. Contain as much as practical. Recover with pumps or scoops. Absorb residues with inert absorbent. Seal recovered materials into appropriately labelled containers for waste disposal. DO NOT wash to sewers, drains or other water courses.

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Section 07 – Handling & Storage

- Handling Procedures** Use proper equipment for lifting and transporting containers and when dispensing the solution.
Avoid all situations that could lead to harmful exposure.
- Storage** Store in closed DG-rated containers in correctly banded areas.
Protect against physical damage. Keep well away from organic substances or other readily oxidisable materials.

Section 08 – Personal Protection and Exposure Controls

Personal Protective Equipment

- Eyes** Wear safety goggles or full face shield when there is a risk of exposure to splashed or spilled solution.
- Gloves** Impervious gloves of chemically resistant material should be worn at all times.
- Clothing** Wear clothing of chemical resistant material.
- Footwear** Impervious boots of chemically resistant material should be worn at all times.
- Other** Wash contaminated clothing and other protective equipment with soap and water then dry thoroughly before storing or reusing.
Do NOT take soiled work clothes home. Always wash hands after working with this product.

Engineering Controls

- Ventilation requirements** Lead Nitrate Solution has a very low vapour pressure at ambient temperatures so should not present an inhalation hazard. Avoid the generation of any mists when pumping and dispensing the material.
- Other** Emergency shower and eyewash should be in close proximity to work area.

Section 09 – Physical and Chemical Properties

- Form / Colour / Odour** Transparent, yellow solution. Odourless
- pH** 3 – 3.5
- Water Solubility** Soluble
- Boiling Point (C)** Not Available
- Flash Point (C) PMCC** Not Available
- Specific Gravity (Water =1)** . 1.33
- Vapour Pressure (hPa @ 20°C)** low

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Section 10 – Stability and Reactivity

Stability Stable under ordinary conditions of use and storage.

Incompatibility..... Incompatible with combustibles, organic materials and strong reducing agents

Section 11– Toxicological Information

Toxicity Data

Unr-Rat LD50 3613mg/kg
Oral LD50 Guinea Pig 1330mg/kg

Acute Health Effects

No adverse health effects should occur if the product is handled in accordance with this safety data sheet. Depending on the degree of exposure, an employer should provide a health surveillance program for employees who work in lead-risk jobs.

Ingestion..... Poisonous! Swallowing can result abdominal pain and spasms, nausea, vomiting and headache.

Eye The solution is mildly acidic and direct eye exposure to the solution must be prevented. Absorption of lead can occur through eye tissue but the more common hazard is irritation.

Skin Lead and lead compounds may be absorbed through the skin on prolonged exposure; the symptoms of lead poisoning described for ingestion exposure may occur. Contact with skin over short periods may cause local irritation, redness and mild pain.

Inhalation..... As this product is a non-volatile solution absorption by inhalation is much less likely than when using the dry powder. Inhaled lead can be absorbed through the respiratory system.

Chronic Health Effects

Lead is a cumulative poison and repeated exposure even to small amounts can raise the body's content to toxic levels. Chronic overexposure to lead may affect the following target organs or body systems: blood, digestive, kidneys, nervous and reproductive. The following are signs and symptoms of chronic lead exposure: nausea, vomiting, abdominal cramps, diarrhoea, constipation, confusion, convulsion, anaemia, weakness, fatigue, muscle and joint pain, muscle weakness. Lead is listed as a teratogen and reproductive toxin. In pregnant women it could have a negative effect on the development of the foetus. It is also suspected that lead may impair male fertility. Lead is listed as a possible human carcinogen by the IARC (International Agency for Research on Cancer.)



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Section 12 – Ecological Information

Avoid contamination of water ways.

Section 13 – Disposal Considerations

Waste material must be disposed of at an approved waste disposal facility only.

Section 14 – Transportation Information

Proper Shipping Name Lead Nitrate
UN Number 3122
Dangerous Goods Class 6.1 Toxic Substance
Subsidiary Risk 5.1 Oxidising Agent
Packaging Group II
Hazchem Code 2W
Emergency Procedure Guide 31
Label Toxic 6 / oxidising agent

Section 15 – Other Information

Contact Person Jonty Eales – General Manager
Telephone 08 9091-7708 (24 hours)

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.