

**SAFETY DATA SHEET**

**Lead Nitrate (Dry Powder)**

**SECTION 01 - IDENTIFICATION**

Product identifier	Lead Nitrate
Other means of identification	Lead II Nitrate/Lead Dinitrate/Nitric Acid/Lead (2+)
Recommended use of chemical	Mineral Processing Aid
Supplier name	Ixom Operations Pty Limited trading as LogiChem
Supplier address	Lot 33 Bulong Road Parkeston-Kalgoorlie, Australia PO Box 878 Kalgoorlie WA 6433 Australia
Supplier phone	1800 033 111 / Int. +61 (0) 3 9663 2130
24 Hour emergency phone	1800 033 111

**SECTION 02 – HAZARD(S) IDENTIFICATION**

Classification	Toxic To Reproduction - Category 1A Specific Target Organ Toxicity (Repeated Exposure) - Category 2
Signal word	Danger
Hazard statements	H302 - Harmful if swallowed H302 / H332 - Harmful if swallowed or if inhaled H332 - Harmful if inhaled H360FD - May damage fertility. May damage the unborn child H373 - May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
Precautionary statements	<b>Prevention</b> P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking P221 - Take any precaution to avoid mixing with combustibles <b>Response</b> P301 / P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician P305 / P351 / P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. <b>Storage</b> P403 / P233 - Store in a well-ventilated place. Keep container tightly closed. <b>Disposal</b> P501 - Dispose of contents/container in accordance with local / regional / national / international regulations.



**SECTION 03 – COMPOSITION / INFORMATION ON INGREDIENTS**

<u>Chemical Components</u>	<u>Gas No:</u>	<u>Proportion</u>
Lead Nitrate	10099-74-8	99.0%

**SECTION 04 – FIRST AID MEASURES**

Description of necessary first aid measures	<b>Eye</b> - Immediately flush eyes with copious amounts of water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention
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	<p><b>Ingestion</b> - Rinse mouth with water. Give water to drink provided person is conscious. Do NOT induce vomiting. Seek immediate medical assistance.</p> <p><b>Inhalation</b> - Remove victim from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical assistance.</p> <p><b>Skin</b> - Remove contaminated clothing and immediately flush skin with water and soap for at least 20-30 minutes. Discard contaminated leather goods. Seek medical attention if irritation occurs or persists.</p>
Medical attention / special treatment	Treat symptomatically based on individual reactions of patient and judgement of doctor.
Symptoms caused by exposure	Not available

**SECTION 05 - FIRE FIGHTING MEASURES**

Suitable extinguishing media	Product may act as an oxidising agent and can assist combustion. In case of fire, appropriate extinguishing media is flooding quantities of water. Do NOT use dry chemicals, carbon dioxide or foam.
Specific hazards arising from the chemical	Strong Oxidizer. Will accelerate burning when involved in a fire. May explode from heating, shock, friction or contamination. Incompatible with oxidizers, reducing agents, organic combustible materials, finely powdered metals, alcohols, esters, ammonium compounds and sources of ignition. Some will react explosively with hydrocarbons (fuels). May ignite combustibles, (wood, paper, clothing, etc). Containers may explode when heated. Avoid getting water inside containers as a violent reaction may occur. Fire may produce irritating, poisonous and / or corrosive gases. Reacts violently with reducing, ammonium thiocyanate, carbon and lead hypophosphite. Carbon and lead hypophosphite. Hazardous decomposition products include oxides of nitrogen.
Special protective equipment & precautions for fire fighters	Fire fighters should wear a self-contained breathing apparatus and full protective clothing along with protective equipment.

**SECTION 06 - ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures	Personnel involved in the clean-up should wear full protective clothing. Eliminate all sources of ignition. Increase ventilation. Stop leak if safe to do so. Avoid generating dust. Use spark-proof tools and equipment.
Environmental precautions	Do not allow product to reach drains, sewers or waterways. If product does enter a waterway advise the Environmental Protection authority or your local Waste Management.
Methods and materials for containment and cleaning up.	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable labelled container and hold for safe disposal.

**SECTION 07 - HANDLING AND STORAGE**

Precautions for safe handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommend procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment.
Conditions for Safe Storage (Including Any Incompatibles)	Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Store separately from reactive or combustible materials, and out of direct sunlight. Isolate from incompatible substances. Areas in which exposure to lead metal or lead compounds may occur should be identified by signs or appropriate means, and access to the area should be limited to authorized persons. Containers of this material may be hazardous when

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empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

**SECTION 08 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

Control parameters – exposure standards, biological monitoring	Threshold Limit Value - (TLV-TWA) = 0.15mg/m Permissible Exposure Limit - (PEL) = 0.5 mg/m TLV & PEL are for lead, inorganic dusts and fumes as Pb.
Appropriate engineering controls	A system of local and /or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal protective equipment (PPE)	<b>Clothing</b> – Long-sleeved protective coveralls, lab coat or apron <b>Eyes</b> – Safety goggles (AS1336/1337). <b>Footwear</b> – Safety footwear (AS3765/2210). <b>Gloves</b> – Butyl rubber gloves (AS2161). <b>Other</b> - RESPIRATOR: Use an approved air-purifying respirator. In dusty atmospheres use an approved dust respirator (AS1715/1716).

**SECTION 09 – PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Colourless or white crystals
Odour	Odourless
Odour threshold	Not available
pH	3.0 – 4.0 (20% aq. Solution)
Melting point/freezing point	470°C (878°F)
Specific gravity (water = 1)	4.53
Boiling point and boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability	Not available
Upper/lower flammability or explosive limits	Not available
Vapour pressure (hPa @ 20°C)	Not available
Relative vapour density	11.0 Air = 1
Solubility(ies) (water)	522g / litre water (20°C)
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Specific heat value	Not available
Particle size	Not available
Volatile organic compounds content	Not available
% volatile	Not available
Saturated vapour concentration	Not available
Release of invisible flammable vapours and gases	Not available

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**SECTION 10 – STABILITY AND REACTIVITY**

Reactivity	Polymerization will not occur. Reacts violently with reducing agents, ammonium thiocyanate, carbon and lead hypophosphite.
Chemical stability	Stable under ordinary conditions of use and storage.
Conditions to avoid	Avoid excessive heat, generating dust, direct sunlight, moisture and static discharges.
Incompatible materials	Ammonium thiocyanate, powdered carbon, lead hypophosphite, hydrogen peroxide, combustibles and organic materials.
Hazardous decomposition products	Oxides of Nitrogen, Lead fumes

**SECTION 11– TOXICOLOGICAL INFORMATION**

Information on routes of exposure	<p><b>Eyes</b> – Contact with eyes will result in a mild irritation.</p> <p><b>Ingestion</b> - Harmful if swallowed. May cause anorexia, vomiting, malaise and convulsions due to increased intracranial pressure which could result in permanent brain damage.</p> <p><b>Inhalation</b> – Harmful by inhalation. Dust will cause irritation. Symptoms after inhalation of the powder and a latency period include metallic taste, salivation, vomiting and a drop in blood pressure.</p> <p><b>Skin</b> - Contact with the skin will result in mild irritation.</p>
Symptoms related to exposure	Not available
Numerical measures of toxicity	Oral LD50 Rat Intravenous - 93mg/kg Oral LD50 Mouse intraperitoneal - 74mg/kg
Immediate, delayed and chronic health effects from exposure	Not available
Exposure levels	Not available
Interactive effects	Not available
Data limitations	Not available

**SECTION 12– ECOLOGICAL INFORMATION**

Ecotoxicity	Highly toxic for aquatic organisms. May cause long term adverse effects in the aquatic environment. Fish LC50 C.Carpio 96hr - 1.3mg/L Trout LC50 O.Mykiss 96hr - 1.5mg/L
Persistence and degradability	Not available
Bioaccumulative potential	Not available
Mobility in soil	Not available
Other adverse effects	Not available

**SECTION 13 – DISPOSAL CONSIDERATIONS**

Safe handling and disposal methods	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
Disposal of any contaminated packaging	Dispose of packaging as unused product.
Environmental regulations	Dispose of in accordance with all local, state and federal regulations.

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**SECTION 14 - TRANSPORT INFORMATION**

UN number	1469
Proper shipping name	Lead Nitrate
Transport hazard class(es)	5.1 - Oxidising Substances
Subsidiary risk	6.1 - Toxic and Infectious Substances - Toxic Substances
Packaging group	II
Environmental hazards	Not available
Special precautions during transport	Not available
Hazchem code	2Y

**SECTION 15 - REGULATORY INFORMATION**

AICS name	Nitric acid, lead(2+) salt
Poisons Schedule number	6

**SECTION 16 - OTHER INFORMATION**

SDS creations date	10 October 2002
Most recent revision date	01 February 2018
Revision number	013 <b>THIS ISSUE NUMBER REPLACES ALL ISSUES</b>
Reason for revision	Annual Update
Contact	Ixom 1800 033 111

*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.*

**END OF SDS**