



Infosafe No™	1CH3Q	Issue Date : July 2018	RE-ISSUED by CHEMSUPP
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Product Name : **LEAD (II) OXIDE**

Classified as hazardous

1. Identification

GHS Product Identifier	LEAD (II) OXIDE	
Company Name	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)	
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia	
Telephone/Fax Number	Tel: (08) 8440-2000 Fax: (08) 8440-2001	
Recommended use of the chemical and restrictions on use	Storage batteries, ceramic cements and fluxes, pottery and glazes, glass, chromium pigments, oil refining, varnishes, paints, enamels; assay of precious metal ores, manufacture of red lead, cement (with glycerol), acid-resisting compositions, match-head compositions, other lead compounds, rubber accelerator and laboratory reagent.	
Other Names	Name	Product Code
	LEAD MONOXIDE Low in silver AR	LA044
	LEAD (II) OXIDE LR	LL021
	Lead oxide yellow	
	Litharge	
Other Information	EMERGENCY CONTACT NUMBER: +61 08 8440 2000 Business hours: 8:30am to 5:00pm, Monday to Friday.	

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture	Carcinogenicity: Category 2 Toxic to Reproduction: Category 1A Germ Cell Mutagenicity: Category 2 Single Target Organ Toxicity - Repeated Exposure Category 2 Hazardous to the Aquatic Environment - Acute Hazard: Category 1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
Signal Word (s)	DANGER
Hazard Statement (s)	H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H360 May damage fertility or the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.
Pictogram (s)	Health hazard, Environment



Precautionary statement – Prevention	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/vapours/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P281 Use personal protective equipment as required.
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Precautionary statement – Response	P308+P313 IF exposed or concerned: Get medical advice/attention.
Precautionary statement – Storage	P405 Store locked up.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Chemical Characterization	Solid				
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Lead monoxide	1317-36-8	100 %		

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
Skin	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek immediate medical advice /attention depending on the severity.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.
First Aid Facilities	Maintain eyewash fountain and drench facilities in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Most important symptoms/effects, acute and delayed	Lead compounds can accumulate in the body and cause significant long-term health effects. Medical advice should be sought following any exposure.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Hazards from Combustion Products	Irritating and highly toxic fumes and gases, including lead/lead oxides and nitroxides.
Specific Methods	Use extinguishing media most appropriate for the surrounding fire.
Specific hazards arising from the chemical	Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases. Runoff may pollute waterways.
Hazchem Code	2Z
Precautions in connection with Fire	Wear SCBA and chemical splash suit. Fully encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

6. Accidental release measures

Personal Precautions	Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.
Environmental Precautions	Prevent contamination of soil and water.

7. Handling and storage

Precautions for Safe Handling	Avoid ingestion and inhalation of dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Minimize dust generation and accumulation. Keep containers closed when not in use. Work in fumehood and use only with adequate ventilation. In case of insufficient ventilation, wear
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Conditions for safe storage, including any incompatibilities	<p>suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Wear suitable protective clothing. Contaminated clothing should be removed and washed before re-use. Wash hands and face thoroughly after working with material. Keep container dry. Ensure a high level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking, smoking or using the toilet.</p> <p>Toxic materials should be stored in a separate safety storage cabinet or room. Store in tightly closed containers, in a cool, dry, ventilated area away from incompatible materials. Keep apart from oxidising agents. Store away from foodstuffs. Protect against physical damage, direct sunlight and moisture. Store away from combustible materials. 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.</p>
Storage Regulations	Refer Australian Standard AS 4452 - 1997 'The storage and handling of toxic substances'.
Storage Temperatures	Store at room temperature (15 to 25 °C recommended).

8. Exposure controls/personal protection

Occupational exposure limit values	These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Other Exposure Information	A time weighted average (TWA) has been established for Lead, inorganic dusts and fumes (as Pb) (Safe Work Australia) of 0.15 mg/m ³ . The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.
Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
Body Protection	Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

9. Physical and chemical properties

Form	Solid
Appearance	Yellow to reddish crystals (depending on treatment and purity).
Odour	Odourless.
Solubility in Water	Insoluble.
Solubility in Organic Solvents	Soluble in acids and alkalis.
Specific Gravity	9.56 g/cm ³
Flammability	Non combustible material.



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Molecular Weight 223.2**10. Stability and reactivity****Chemical Stability** Stable.**Incompatible Materials** Hydrogen peroxide, chemical active metals, aluminum, combustible materials, lithium carbide, chlorinated rubber, chlorine, boron, hydrides, ethylene, fluorine, sulfides, acetylides and strong reducing agents.**Hazardous Decomposition Products** Thermal decomposition may produce oxides of lead.**Hazardous Polymerization** Will not occur.**11. Toxicological Information****Ingestion** Harmful if swallowed. May cause abdominal pain, spasms, nausea, vomiting, headache, joint and muscle weakness, 'lead line' on the gums, metallic taste, definite loss of appetite, insomnia, dizziness, high lead levels in blood and urine with shock. The following applies to lead compounds in general: Due to the poor absorbability via the gastrointestinal tract, only very high doses lead to acute cases of intoxication. Excessive exposure to lead salts can affect blood forming organs, kidneys and nervous and digestive systems. The synthesis of haemoglobin is inhibited and results in anaemia. If left untreated, neuromuscular dysfunction, possible paralysis, and encephalopathy can result. Additional symptoms of overexposure include: joint and muscle pain, weakness of the extensor muscles (frequently the hand and wrist), headache, dizziness, abdominal pain, diarrhea, constipation, nausea, vomiting, blue line on the gums, insomnia, and metallic taste. High body levels produce increased cerebrospinal pressure, brain damage, and stupor leading to coma and often death.**Inhalation** Harmful by inhalation. May cause irritation of bronchia and lungs. May cause metallic taste, headaches, dizziness, joint and muscle weakness, chest and abdominal pain and increased blood levels may follow.**Skin** In general, lead compounds are not considered irritating to skin (REACH). No effects were reported in skin irritation assays in rabbits citing OECD TG 404 for lead dioxide (CAS No: 1309-60-0), lead oxide, red (CAS No: 1314-41-6) and lead monoxide (CAS No: 1317-36-8).**Eye** In general, lead compounds were not reported to be irritating to eyes or having caused serious eye damage (REACH). No effects were reported in eye irritation assays in rabbits citing OECD TG 405 for lead dioxide (CAS No: 1309-60-0), lead oxide, red (CAS No: 1314-41-6) and lead monoxide (CAS No: 1317-36-8).**Skin Sensitisation** Several lead compounds, including lead dioxide (CAS No: 1309-60-0), lead oxide, red (CAS No: 1314-41-6) and lead monoxide (CAS No: 1317-36-8) were reported to be non-sensitisers (REACH). It was reported that the compounds gave negative results for skin sensitisation in guinea pigs when tested according to OECD TG 406.**Germ cell mutagenicity** Suspected of causing genetic defects - Cat. 2 (H341)**Carcinogenicity** Lead compounds, inorganic are evaluated in the IARC Monographs (Vol. 87; 2006) as Group 2B: Probably carcinogenic to humans.**Reproductive Toxicity** May damage the unborn child. Suspected of damaging fertility - Repr. 1A (H360Df)

Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)].

Reproductive Toxicity category 1: R61 May cause harm to the unborn child.

Category 1: Established human carcinogens are those substances known to be carcinogenic to humans. There is sufficient evidence to establish a causal association between human exposure to these substances and the development of cancer.

Reproductive Toxicity category 3: R62 Possible risk of impaired fertility.

Category 3: Substances suspected of having carcinogenic potential are those substances which have possible carcinogenic effects on humans but in respect of which the available information is not adequate for making a satisfactory assessment. There is some evidence from appropriate animal and epidemiological studies, but this is insufficient to place the substance in Category 2.

The material decreases human motility counts, however increases the rate of stillbirths, preterm deliveries and neurological abnormalities.

STOT-repeated exposure H373 May cause damage to organs through prolonged or repeated exposure.**Chronic Effects** An inorganic compound such as Lead, is a cumulative harmful poison when exposed in small amounts can raise the body's content to toxic levels. Prolonged or repeated exposure to lead toxicity effects the nervous system (memory loss, tiredness, headaches, fatigue, irritability, decreased libido, dizziness,



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depression, encephalopathy (brain damage caused by altered brain function and structure), behavioural effects, altered mood states, disturbances in hand-eye coordination, reaction times, visual motor performance, and mental performance, disturbances to vision, changes in hearing, muscle and joint weakness of the arms and legs, footdrop and wristdrop), heart/blood vessels (reduced haemoglobin synthesis and production, reduced life span and function of red blood cells, anaemia, increased blood pressure), digestive system (loss of appetite, anorexia, with severe abdominal pain, diarrhea, inflammation of the stomach walls (gastritis) and colic, cramps, nausea, vomiting, constipation, weight loss and decreased urination, deposition of blue lead-line on the gums), kidneys/urinary system (reversible/irreversible kidney damage) and endocrine system. Increased levels of lead result in increased brain damage, coma and death in extreme cases.

Mutagenicity Possible mutagen.

12. Ecological information**Ecotoxicity** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**Environmental Protection** Do not allow product to enter drains, waterways or sewers.**13. Disposal considerations****Disposal Considerations** Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.**14. Transport information****Transport Information** Dangerous Goods of Class 6 (Toxic and Infectious Substances) are incompatible in a placard load with any of the following:
Class 1, Class 3, if the Class 3 dangerous goods are nitromethane, Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids; and are incompatible with food and food packaging in any quantity.**U.N. Number** 2291**UN proper shipping name** LEAD COMPOUND, SOLUBLE, N.O.S.**Transport hazard class(es)** 6.1**Hazchem Code** 2Z**Packaging Method** 3.8.6.1**Packing Group** III**EPG Number** 6B5**IERG Number** 34**15. Regulatory information****Regulatory Information** Listed in the Australian Inventory of Chemical Substances (AICS).**Poisons Schedule** S6**National and or International Regulatory Information** Safe Work Australia: Model Work Health and Safety Regulations 2011, Chapter 7 Hazardous Chemicals, Part 7.2 Lead.**Regulatory Information Packaging & Labelling****16. Other Information****Literature References** 'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997.
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007.
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011.
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide',



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Safety Data Sheet

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CS: 1.7.2

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**Contact
Person/Point**

Standards Australia/Standards New Zealand, 2010.
 Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.
 Safe Work Australia, 'Hazardous Substances Information System, 2005'.
 Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.
 Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'.
 Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**
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