

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Granular Litharge	
Company: Associated Additives	Telephone: +27 31 - 468 1561/2
Physical Address: 245 Lansdowne Road, Jacobs, 4052, South Africa	Telefax: +2731 - 468 1755
Postal Address: P.O. Box 12043, Jacobs, 4026, South Africa	Emergency Telephone: +2731 - 468 1561/2

2. COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Product: Substance	Chemical Name: Lead (II) Oxide (PbO)
Synonyms: Lead Monoxide	CAS No(s): 1317-36-8
EEC No: 215-267-0	UN No: 2291 Lead compound
Hazardous Ingredients: Lead(II) Oxide: 92% as Pb	

3. HAZARDS INFORMATION

Main hazards: Danger of cumulative effects. May cause harm to unborn child. Possible risk of impaired fertility. Marine pollutant.
Health effects: <i>Eyes:</i> Causes irritation. <i>Skin:</i> Causes irritation. <i>Ingestion:</i> Irritation, metallic taste, vomiting, digestive disorders, brain effects depending on quantity. <i>Inhalation:</i> Irritation, harmful depending on quantity
Specific Hazards: Not available
Main Symptoms: Lack of appetite, constipation, diarrhoea, abdominal pains, loss of skin colour, pain and stiffness in joints or muscles.
R Phrases: R61-62-20/22-33 (see section 15)
Hazard Symbol: T - Toxic
Emergency overview: Warning. Harmful if swallowed or inhaled. Causes irritation.

4. FIRST AID MEASURES

Inhalation: Remove from exposure, rest and keep warm. In severe cases obtain medical attention.
Skin Contact: Remove contaminated clothing, jewellery and shoes immediately – wash before reuse. Wash with soap or mild detergent and water until no evidence of chemical remains (15-20 minutes). Get medical attention, if needed.
Eye Contact: Immediately flush eyes with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if discomfort persists.
Ingestion: Wash out mouth and give plenty of water to drink. Seek medical advice.
Protection of first-aiders: The use of dust masks and/or goggles on entering a contaminated area is recommended if practical.
Note to Physician Intra-corporal lead contamination can be detected by increased lead concentrations in blood and/or urine. Check delta-aminolevulinic acid level.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray, foam, CO ₂ inert powder extinguisher depending on type of fire.
Special hazards: May evolve toxic fumes in fire. May ignite or explode on contact with combustible materials
Protection of fire fighters: Self-contained breathing apparatus (SCBA).
Further information: Contaminated waste and fire-fighting waste water must be removed in compliance with regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not breathe dust. Avoid contact with skin, eyes and clothing. Wear the PPE specified in section 8.
Environmental precautions: Dispose of material in accordance with national and local regulations. Burial in a permitted waste disposal site is recommended.
Method of clean up: Vacuum (cleaner with fine mesh filters to prevent re-circulation of fine particles) or remove with damp cloth or sponge all spillage material without creating dust. Place in appropriate closed containers for disposal. Do not use brush and pan as this may increase dust.

7. HANDLING & STORAGE

Handling: Wear respirator, gloves and goggles. Avoid dust formation. Do not eat, drink or smoke in the workplace. Protect against physical damage. Wash contaminated clothing before reuse.
Safe handling advice: Isolate from incompatible substances.
Storage: Store in roofed places at room temperature. Keep containers tightly sealed in cool, well ventilated, dry place. Do not store with or close to food and animal feeding stuff.
Recommended packaging material: Steel drums, paper bags, polypropylene or polyethylene bags.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: A system of local and/or general exhaust ventilation is recommended to keep employee exposures below the OEL.
Exposure limits: Exposure level 0.15mg lead/m ³ air, Action level 0.075mg lead /m ³ air (as defined in Lead Regulations)
Measurement Method : Particulate filter; Nitric acid/hydrogen peroxide; Atomic absorption spectroscopy (ASTM 1164:1990, NIOSH 7082).
Biological Monitoring: Lead in blood, ALA in urine, Coproporphyrin, Haemoglobin.
Personal Protective Equipment (as appropriate to quantity handled): <i>Respiratory protection:</i> If the OEL is exceeded, wear a respirator/particle filter mask. The particle filter used depends on the OEL. Refer to manufacturer's instructions. <i>Hand protection:</i> Rubber or plastic chemical resistant gloves. <i>Eye protection:</i> Use chemical safety goggles. Maintain eye wash fountain and quick drench facilities in work area. <i>Skin and body:</i> Barrier cream on hands. Wear appropriate chemical resistant clothing as required. Use soap or special hand cleaners.
Specific Hygiene Measures: After removal of overalls, hands and face should be thoroughly washed using soap and water. The use of a nailbrush is recommended to clean thoroughly. A barrier cream can be applied to exposed skin to reduce itchiness. Do not eat, drink or smoke in any workroom where lead products are being handled. Wash hands before eating, drinking or smoking. Regular cleaning of masks and clothing.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical State: Granules	Odour: Odourless	Colour: Reddish orange
Melting Point: 888°C	Boiling Point: No information found	Specific Gravity: 9.5
pH: Not applicable	Flammability: Non Flammable	Flash Point: Non Flammable
Explosion Properties: Not applicable		
Solubility: Practically insoluble in water, soluble in acetic acid, dilute HNO ₃ and warm solutions of alkali hydroxides.		

10. STABILITY & REACTIVITY

Stability: Stable under ordinary conditions of use and storage.
Materials to avoid: Acids, certain alkali. Limited information available.
Hazardous decomposition products: Toxic lead fumes may form when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

The following applies to lead compounds in general:
Acute Toxicity: metallic taste, thirst, burning sensation, salivation, vomiting, constipation, fatigue, dullness, memory loss
Local Effects: Irritation
Chronic Toxicity: accumulation in body tissues, anorexia weight loss, constipation, metallic taste, headache, vomiting, possible kidney damage, may harm unborn child, possible risk of impaired fertility.
Specific Effects: Smoking may result in higher blood lead levels. No evidence of carcinogenic properties on humans. Animal carcinogen. Evidence of mutagenic effects.
Further Data: Toxic to aquatic organisms(calc. Lead): fish:lethal from 1.4mg/l; S. gairdnerii:LC50: 0.14mg/l/96h; arthropod magna LC50: 2.5mg/l; bacteria :Ps. Putida toxic from 1.8mg/l up; algae: Sc. Quadricauda toxic from 3.7mg/l up. LD ₅₀ i.p. in rats 430mg/kg. Hazard in drinking water.




12. ECOLOGICAL INFORMATION

Environmental fate: Do not allow to enter drinking water supplies, wastewater or soil. Avoid any environmental discharges. Practically insoluble in water. When released into water, this material is not expected to evaporate significantly.
Ecotoxicity: Marine and/or fresh water pollutant. For lead compounds – toxic to aquatic organisms(calc. Lead): fish:lethal from 1.4mg/l; S. gairdnerii:LC50: 0.14mg/l/96h; arthropod magna LC50: 2.5mg/l; bacteria :Ps. Putida toxic from 1.8mg/l up; algae: Sc. Quadric from 3.7mg/l up hazard in drinking water

13. DISPOSAL CONSIDERATIONS

Residue from waste: Dispose in a permitted waste disposal site subject to national and local regulations. Place in containers that will prevent escape of lead dust during handling.
Packaging: Dispose in a permitted waste disposal site subject to national and local regulations.

14. TRANSPORT INFORMATION	
Land: ADR/RID: Class 6.1	Hazchem code : 2Z
Sea: IMDG Shipping name:	LEAD COMPOUNDS,SOLUBLE,N.O.S
Class:	6.1
Packing Group:	III
Hazard Label:	Toxic
Air: IATA-DGR Shipping name:	LEAD COMPOUNDS,SOLUBLE,N.O.S
Class:	6.1
Packing Group:	III
Hazard Label:	Toxic
UN No:	2291

15. REGULATORY INFORMATION	
Label Hazard and safety information: T – Toxic Marine Pollutant	  
Risk (R) phrase: R61-62-20/22-33 – May cause harm to unborn child. Possible risk of impaired fertility. Harmful by inhalation and if swallowed. Danger of cumulative effects	
Safety (S): S53-45 – Avoid exposure-obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)	
Local Regulations: OHS Act 85 of 1993 and Lead Regulations 2001	
OEL-RL: 0.15mg Pb/m ³ TWA	
Carcinogen Category: No evidence of carcinogenic properties.	

16. OTHER INFORMATION	
Alert all workers to this hazard potential and ensure precautions are taken.	
This data sheet has been prepared in accordance with Occupational Health and Safety Act 85 of 1993 and SABS ISO 11014 specification.	
References:	1. Occupational Health and Safety, Vol. 1 2. MSDS – Merck
Replaces:	Original Issue
Reason for reissue :	--
Department issuing MSDS:	Technical Department
Amendments to previous issue are indicated with # before amendment and /or indicated in colour other than black.	
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