

Mallinckrodt Material Safety Data

Emergency Phone Number: 314-539-1600

LEAD MONOXIDE

PRODUCT IDENTIFICATION:

Synonyms: Lead (II) oxide; lead oxide yellow; litharge; massicot

Formula CAS No.: 1317-36-8

Molecular Weight: 223.21

Chemical Formula: PbO

Hazardous Ingredients: Lead monoxide

PRECAUTIONARY MEASURES

**DANGER! MAY BE FATAL IF SWALLOWED.
HARMFUL IF INHALED. NEUROTOXIN.**

Avoid breathing dust.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

EMERGENCY/FIRST AID

In all cases call a physician immediately. If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
SEE SECTION 5.

DOT Hazard Class: Not Regulated This substance is OSHA Regulated. See section 6.

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SECTION 1 Physical Data

Appearance: Red or reddish yellow powder.
Odor: Odorless.
Solubility: Insoluble in water.
Boiling Point: No information found.
Melting Point: 888°C (1630°F)
Specific Gravity: 9.53
Vapor Density (Air=1): No information found.
Vapor Pressure (mm Hg): No information found
Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire:
Not considered to be a fire hazard.

Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Can produce toxic lead fumes at elevated temperatures and also react with oxidizing materials.

Mallinckrodt makes no representations, or warranties, either express or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, Mallinckrodt will not be responsible for damages resulting from use of or reliance upon this information.

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SECTION 3 Reactivity Data

Stability:
Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:
None.

Hazardous Polymerization:
This substance does not polymerize.

Incompatibilities:
Hydrogen peroxide, lithium carbide, chlorine, ethylene, fluorine, sulfides, acetylides.

SECTION 4 Leak/Spill Disposal Information

Clean-up personnel should wear protective clothing and respiratory equipment suitable for toxic dusts. Sweep, scoop or pick up spilled material. Vacuuming or wet sweeping may be used to avoid dust dispersal. Package for reclamation or recovery. Package unreclaimable material for disposal in a RCRA-approved waste facility.

Ensure compliance with local, state and federal regulations.

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SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:

Lead can be absorbed through the respiratory system. Local irritation of bronchia and lungs can occur and, in cases of acute exposure, symptoms such as metallic taste, chest and abdominal pain, and increased lead blood levels may follow. See also Ingestion.

Ingestion:

POISON! The symptoms of lead poisoning include abdominal pain and spasms, nausea, vomiting, headache. Acute poisoning can lead to muscle weakness, "lead line" on the gums, metallic taste, definite loss of appetite, insomnia, dizziness, high lead levels in blood and urine with shock, coma and death in extreme cases. Soluble lead compounds, e.g., the acetate or nitrate, are the most dangerous. The reduced solubility of the chloride or materials forming the chloride in the stomach (metal, oxides, carbonate, etc.) while still toxic, may not act as rapidly.

Skin Contact:

Lead and lead compounds may be absorbed through the skin on prolonged exposure. Contact over short periods may cause local irritation or redness.

Eye Contact:

Absorption can occur through eye tissues but the more common hazards are local irritation or abrasion.

Chronic Exposure:

Lead is a cumulative poison and exposure even to small amounts can raise the body's content to toxic levels. The symptoms of chronic exposure are like those of ingestion poisoning; restlessness and irritability may also be noted.

Aggravation of Pre-existing Conditions:

Persons with pre-existing nerve or circulatory disorders or with skin or eye problems may be more susceptible to the effects of this substance.

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B. FIRST AID

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. CALL A PHYSICIAN IMMEDIATELY. Never give anything by mouth to an unconscious person.

Skin Exposure:

Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Exposure:

Wash eyes with plenty of water for at least 15 minutes. Call a physician.

C. TOXICITY DATA (RTECS, 1986)

No LD50/LC50 information found relating to normal routes of occupational exposure. Mutation data cited. Lead and other smelter emissions are human reproductive hazards. (Chemical Council on Environmental Quality; Chemical Hazards to Human Reproduction, 1981)

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL):
0.05 mg(Pb)/m³ (TWA)

-ACGIH Threshold Limit Value (TLV):
0.15 mg(Pb)/m³ (TWA)

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Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. 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. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)

If the PEL is exceeded, a half-mask air-purifying respirator equipped with a high-efficiency filter, or any half-mask supplied air respirator may be worn up to concentrations of 50 mg per cubic meter (1000X PEL). See OSHA Standard for additional information.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area. Eating, drinking, and smoking should not be permitted in areas where solids or liquids containing soluble lead compounds are handled, processed, or stored.

See OSHA Standard for more information on personal protective equipment, engineering and work practice controls, medical surveillance, record keeping, and reporting requirements. (29 CFR 1910.1025)

SECTION 7 Storage and Special Information

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. 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.

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Addendum to Material Safety Data Sheet

REGULATORY STATUS

This Addendum Must Not Be

Detached from the MSDS

Identifies SARA 313 substance(s)

Any copying or redistribution of the MSDS

must include a copy of this addendum

(Chem.Key: LEDMO)

Hazard Categories for SARA
Section 311/312 Reporting
Acute Chronic Fire Pressure Reactive

X X

Product or Components
of Product:

LEAD MONOXIDE (1317-36-8)

SARA EHS Sect. 302 RQ (lbs.)	TPQ (lbs.)	SARA Section 313 Chemicals Name List	Chemical Category	CERCLA Sec.103 RQ (lbs.)	RCRA Sec. 261.33
No	No	No	Lead compound	No	No

SARA Section 302 EHS RQ: Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPQ: Threshold Planning Quantity of Extremely Hazardous Substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals: Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.

CERCLA Sec. 103: Comprehensive Environmental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4

RCRA: Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

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