



# SAFETY DATA SHEET

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## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Lead (II) Oxide**  
PRODUCT NUMBER: 2272  
CAS NUMBER: 1317-36-8  
SYNONYMS: Lead monoxide, litharge, plumbous oxide  
**MANUFACTURER:**

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## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Danger**

### Hazard Statements

H350	May cause cancer.
H360	May damage fertility or the unborn child.
H362	May cause harm to breast-fed children.
H372	Causes damage to organs through prolonged or repeated exposure.

### Precautionary Phrases

P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash face, hands, and any exposed skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P281	Use personal protective equipment as required.

### HMIS CLASSIFICATION:

Health: 2      Fire: 0      Reactivity Hazard: 0

### NFPA RATING:

Health: 2      Flammability: 0      Reactivity Hazard: 0

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

**EYE CONTACT:** Causes slight to mild irritation of the eyes.

**SKIN CONTACT:** Causes slight to mild irritation of the skin.

**INHALATION:** May cause irritation to the respiratory tract.

**INGESTION:** May be harmful if swallowed.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: PbO

Molecular Weight: 223.19

CHEMICAL NAME	CAS#	%
Lead (II) Oxide	1317-36-8	100

## SECTION 4 FIRST AID MEASURES

**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

**SKIN EXPOSURE:** Wash affected area with plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

**INHALATION:** Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

**INGESTION:** Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** Product is not flammable.

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Use fire fighting measures that suit the surrounding fire.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** None

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust.

**ENVIRONMENTAL PRECAUTIONS:** Prevent spillage from entering drains or allowing to be released into the environment.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Mix spills with vermiculite or sodium carbonate. Sweep up and place in suitable container for proper disposal.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Ensure adequate ventilation. Avoid contact with skin and eyes.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area. Do not store with acids or oxidizing agents.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

### EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Lead (II) Oxide	0.05 mg/m <sup>3</sup>	TWA	ACGIH
	0.05 mg/m <sup>3</sup>	PEL	OSHA

TLV: Threshold Limit Value over 8 hours of work.

PEL: Permissible Exposure Limit

**EYE PROTECTION:** Wear chemical safety glasses or goggles and face shield.

**SKIN PROTECTION:** Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

**VENTILATION:** Provide local exhaust, preferably mechanical.

**RESPIRATOR:** Use an approved respirator.

**ADDITIONAL PROTECTION:** Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** Yellow to orange powder

**ODOR:** None

**MOLECULAR WEIGHT:** 223.19

**BOILING POINT:** >600° C

**MELTING POINT:** >600° C

**SPECIFIC GRAVITY:** 9.96 gm/ml

**SOLUBILITY:** Insoluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Excessive heat and flames

**INCOMPATIBILITY:** Strong oxidizing agents

**DECOMPOSITION PRODUCTS:** None

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** No data available

**CARCINOGENIC EFFECTS:** An inhalation study of lead monoxide in rats showed that it did not induce, initiate or promote tumors of the lung. However, there is evidence that soluble lead compounds may have a carcinogenic effect, particularly on the kidneys of rats. However, the mechanisms by which this effect occurs are still unclear. Epidemiology studies of workers exposed to inorganic lead compounds have found a limited association with stomach cancer. This has led to the classification by IARC that inorganic lead compounds are probably carcinogenic to humans.

**MUTAGENIC EFFECTS:** Not available

**TETRATOGENIC EFFECTS:** Not available

**REPRODUCTIVE TOXICITY:** Exposure to high levels of lead monoxide may cause adverse effects on male and female fertility, including adverse effects on sperm quality. Prenatal exposure to lead and its compounds is also associated with adverse effects on fetal development.

**RTECS:** OG1750000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

## SECTION 12 ECOLOGICAL DATA

**TOXICITY TO ALGAE/AQUATIC PLANTS:** 0.072-0.388 72h Pseudokirchneriella subcapitata, Chlorella kesslerii mg/L ErC50 (pH 5.5-6.5). 0.026-0.080 72h Pseudokirchneriella subcapitata, Chlorella kesslerii mg/L ErC50 (pH >6.5-7.5). 0.021-0.050 72h Pseudokirchneriella subcapitata, Chlorella kesslerii mg/L ErC50 (pH <7.5-8.5).

## SECTION 12 ECOLOGICAL DATA (Cont.)

**TOXICITY TO FISH:** 0.298 96h Pimephales promelas mg/L LC50 static. 0.041-0.810: 96 h Pimephales promelas, Oncorhynchus mykiss mg/L LC50 (pH 5.5-6.5). 0.052-3.60: 96 h Pimephales promelas, Oncorhynchus mykiss mg/L LC 50 (pH >6.5-7.5). 0.114-3.25: 96 h Pimephales promelas, Oncorhynchus mykiss mg/L LC50 (pH >7.5-8.5). 56000:96 h Gambusia affinis mg/L LC50 static. Lead and lead compounds will partially settle out due to their fairly low solubility and partially dissolve. Lead compounds are not particularly mobile in the aquatic environment, but can be toxic for organisms, especially fish, at low concentrations.

## SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

## SECTION 14 TRANSPORTATION DATA

**DOT:** UN3077

Environmentally hazardous substances, solid, n.o.s.  
(Lead (II) Oxide)  
Class 9  
PG III

**IATA:** UN3077

Environmentally hazardous substance, solid, n.o.s.  
(Lead (II) Oxide)  
Class 9  
PG III

Marine Pollutant: No

## SECTION 15 REGULATORY INFORMATION

**TSCA:** Listed

**SARA 331/312:** Acute Health Hazard, Chronic Health Hazard

**SARA (TITLE 313):** Lead (II) Oxide

**CALIFORNIA PROP. 65:** Lead (II) Oxide

## SECTION 16 OTHER INFORMATION

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**DATE PREPARED:** 10/17

**SDS DEPT.**