

Section 1 Chemical Product and Company Information

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CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	LEAD DIOXIDE
Synonyms	Lead(IV) Oxide / Lead Peroxide

Section 2 Hazards Identification

Signal word: DANGER**Pictograms:** GHS03 / GHS08 / GHS09**Target organs:** Gastrointestinal, endocrine and immune systems, blood, heart**GHS Classification:**

Oxidizing solid (Category 3)

Reproductive toxicity (Category 1A)

STOT-RE (Category 2)

Aquatic toxicity, acute (Category 1)

Aquatic toxicity, chronic (Category 1)

GHS Label information: Hazard statement:

H272: May intensify fire; oxidizer.

H360Df: May damage the unborn child. Suspected of damaging fertility.

H373: May cause damage to organs through prolonged or repeated exposure.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220: Keep away from clothing/incompatible/combustible materials.

P221: Take any precaution to avoid mixing with combustibles and incompatible materials.

P260: Do not breathe dust.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313: IF exposed or concerned: Get medical attention.

P370+P378: In case of fire: Use water to extinguish.

P391: Collect spillage.

P405: Store locked up.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65: This product contains a chemical known to the State of California to cause cancer or reproductive toxicity (Lead and Lead compounds).

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Lead dioxide	1309-60-0	minimum 97%	215-174-5

Section 4 First Aid Measures

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use water only. Do not use dry chemicals or foams. CO₂ or Halon® may provide limited control.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: Fire may produce irritating, corrosive and/or toxic gases. Containers may explode when heated. Substance will accelerate burning when involved in fire. May ignite combustibles (wood, paper, oil, clothing, etc.).

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep dry.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Lead and inorganic compounds	TWA: 0.05 mg/m ³ (A3)	TWA: 0.05 mg/m ³	TWA: 0.05 mg/m ³

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: Lead based compounds require the use of a NIOSH type N100 filter.

Section 9 Physical & Chemical Properties

Appearance: Solid. Dark brown-black powder	Evaporation rate (= 1): Data not available	Partition coefficient: Data not available
Odor: No odor	Flammability (solid/gas): Data not available	Auto-ignition temperature: Data not available
Odor threshold: Data not available	Explosion limits: Lower / Upper: Data not available	Decomposition temperature: 290°C (554°F)
pH: Data not available	Vapor pressure (mm Hg): Data not available	Viscosity: Data not available
Melting / Freezing point: Data not available	Vapor density (Air = 1): Data not available	Molecular formula: PbO ₂
Boiling point: Data not available	Relative density (Specific gravity): 9.2	Molecular weight: 239.19
Flash point: Not flammable	Solubility(ies): Insoluble in water.	

Section 10 Stability & Reactivity

Chemical stability: Stable **Hazardous polymerization:** Will not occur.

Conditions to avoid: Excessive temperatures.

Incompatible materials: Reducing agents or combustibles.

Hazardous decomposition products: Lead oxides and oxygen gas.

Section 11 Toxicological Information

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available

Serious eye damage/irritation: Data not available

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenicity: Data not available

NTP: Reasonably anticipated to be a human carcinogen.

IARC classified: Group 2A: Probably carcinogenic to humans.

OSHA: Data not available.

Ca Prop 65: This product contains a chemical known to the State of California to cause cancer or reproductive toxicity (Lead and Lead compounds).

Reproductive toxicity: Data not available

STOT-single exposure: Data not available

STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation may cause cough and sore throat. See ingestion.

Ingestion: Ingestion may cause abdominal cramps, nausea, and vomiting.

Skin: Contact may cause irritation with redness and pain.

Eyes: Contact may cause irritation with redness and pain.

Signs and symptoms of exposure: See Potential health effects above. Lead is a cumulative poison and exposure to even small amounts can raise the body's content to toxic levels. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: OG0700000

Section 12 Ecological Information

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: Very toxic to aquatic life with long lasting effects.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN1872

Shipping name: Lead dioxide

Hazard class: 5.1

Packing group: III

Reportable Quantity: No

Marine pollutant: No

Exceptions: Limited quantity equal to or less than 5 Kg

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Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Lead dioxide	Listed	Not listed	D008	Listed	Not listed	C ; D2A

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.