

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product name: LEAD (IV) OXIDE
CAS number: 1309-60-0
EINECS number: 215-174-5
Synonyms: LEAD (SU)PEROXIDE
LEAD DIOXIDE
LEAD PEROXIDE

Relevant identified uses of the substance or mixture and uses advised against:

Use of substance / mixture: PC21: Laboratory chemicals.

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification under CHIP: O: R8; T: R61; Xn: R20/22; Xn: R33; N: R50/53; Xn: R62

Classification under CLP: Ox. Sol. 3: H272; Acute Tox. 4: H302+332; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Repr. 1A: H360D; STOT RE 2: H373

Most important adverse effects: Contact with combustible material may cause fire. May cause harm to the unborn child. Harmful by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of impaired fertility.

Label elements:

Label elements under CLP:

Hazard statements: H272: May intensify fire; oxidiser.
H302+332: Harmful if swallowed or if inhaled.
H360D: May damage the unborn child.

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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.

Signal words:

Danger

Hazard pictograms:

GHS03: Flame over circle

GHS07: Exclamation mark

GHS08: Health hazard

GHS09: Environmental



instructions before use.

Precautionary statements: P201: Obtain special

P308+313: IF exposed or concerned: Get medical advice/attention.

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

P260: Do not breathe dust/fumes/gas/mist/vapours/spray.

P273: Avoid release to the environment.

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312: Call a POISON CENTER or doctor if you feel unwell.

P501: Dispose of contents/container to hazardous or special waste collection point.

Label elements under CHIP:

Hazard symbols:

Oxidising.

Dangerous for the environment.

Toxic.



Risk phrases:

R8: Contact with combustible material may cause fire.

R61: May cause harm to the unborn child.

R20/22: Harmful by inhalation and if swallowed.

R33: Danger of cumulative effects.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R62: Possible risk of impaired fertility.

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Safety phrases:

S22: Do not breathe dust.
S28: After contact with skin, wash immediately with plenty of.
S36/37: Wear suitable protective clothing and gloves.
S38: In case of insufficient ventilation, wear suitable respiratory equipment.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53: Avoid exposure - obtain special instructions before use.
S61: Avoid release to the environment. Refer to special instructions / safety data sheets.

Precautionary phrases: Restricted to professional users.

Other hazards:

PBT: This product is not identified as a PBT/vPvB substance.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances:

Chemical identity: LEAD (IV) OXIDE
CAS number: 1309-60-0
EINECS number: 215-174-5

4. FIRST AID MEASURES

Description of first aid measures:

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin.
Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.
Consult a doctor.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

Most important symptoms and effects, both acute and delayed:

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Indication of any immediate medical attention and special treatment needed:

Immediate / special treatment: Not applicable.

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5. FIRE-FIGHTING MEASURES

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

Special hazards arising from the substance or mixture:

Exposure hazards: In combustion emits toxic fumes.

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel.

Environmental precautions: Do not discharge into drains or rivers.

Methods and material for containment and cleaning up:

Clean-up procedures: Transfer to a closable, labelled salvage container for disposal by an appropriate method.

Reference to other sections: Refer to section 8 of SDS.

7. HANDLING AND STORAGE

Precautions for safe handling:

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of dust in the air. Keep away from sources of ignition - No smoking.

Conditions for safe storage, including any incompatibilities:

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

Storage class (TRGS 510): Oxidizing hazardous materials

Specific end use(s): No data available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Workplace exposure limits: Respirable dust:

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	0.15mg/m ³	-	-	-

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DNEL/PNEC Values:

DNEL / PNEC: No data available.

Exposure controls:

Engineering measures: Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Respiratory protective device with particle filter.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

State: Powder

Colour: Black

Other information: No data available.

10. STABILITY AND REACTIVITY

Reactivity: Stable under recommended transport or storage conditions.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions:

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

Conditions to avoid: Heat.

Incompatible materials:

Materials to avoid: Strong reducing agents. Finely powdered metals.

Hazardous decomposition products: In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Relevant hazards for substance:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH ING	Based on test data
Reproductive toxicity	-	Based on test data
STOT-repeated exposure	-	Based on test data

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Symptoms / routes of exposure:

- Skin contact:** There may be irritation and redness at the site of contact.
- Eye contact:** There may be irritation and redness. The eyes may water profusely.
- Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.
- Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.
- Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

12. ECOLOGICAL INFORMATION

Toxicity:

Ecotoxicity values: No data available.

Persistence and degradability: Not readily biodegradable.

Bioaccumulative potential: No data available.

Mobility in soil:

Results of PBT and vPvB assessment: This product is not identified as a PBT/vPvB substance.

Other adverse effects: Toxic to aquatic organisms. Toxic to soil organisms.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. TRANSPORT INFORMATION

UN number: UN1872

UN proper shipping name: LEAD DIOXIDE

Transport hazard class(es): 5.1

Packing group: III

Environmentally hazardous: Yes **Marine pollutant:** No

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

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15. REGULATORY INFORMATION

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3:

H272: May intensify fire; oxidiser.
H302+332: Harmful if swallowed or if inhaled.
H360D: May damage the unborn child.
H373: May cause damage to organs or state all organs affected, if known through prolonged or repeated exposure state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

R8: Contact with combustible material may cause fire.
R20/22: Harmful by inhalation and if swallowed.
R33: Danger of cumulative effects.
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R61: May cause harm to the unborn child.
R62: Possible risk of impaired fertility.

Legend to abbreviations:

PNEC = predicted no effect level
DNEL = derived no effect level
LD50 = median lethal dose
LC50 = median lethal concentration
EC50 = median effective concentration
IC50 = median inhibitory concentration
dw = dry weight
bw = body weight
cc = closed cup
oc = open cup
MUS = mouse
GPG = guinea pig
RBT = rabbit
HAM = hamster

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HMN = human
MAM = mammal
PGN = pigeon
IVN = intravenous
SCU = subcutaneous
SKN = skin
DRM = dermal
OCC = ocular/corneal
PCP = physico-chemical properties

Legal disclaimer:

The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.