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MATERIAL SAFETY DATA SHEET (MSDS)

LEAD DIOXIDE LR (LEAD PEROXIDE)

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : LEAD DIOXIDE LR (LEAD PEROXIDE)

Product code : L0119405000

Identification of the product : LEAD DIOXIDE EXTRAPURE
 CAS No: 1309-60-0

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification SUVCHEM
 Chaitanya Tower, 2nd Floor, Office # 206,
 Siddharth Nagar, S.V. Road,
 Goregaon (West), Mumbai - 400062,
 Maharashtra, India.
 Contact: +91 22 28725393 / 94 / 95
 Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : Xn; R20/22
 R33
 N; R50-53

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302
 Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4) H332

Environmental hazards : Hazardous to the aquatic environment - Acute hazard - Category 1 - Warning (CLP : Aquatic Acute 1) H400
 Hazardous to the aquatic environment - Chronic hazard - Category 1 - Warning (CLP : Aquatic Chronic 1) H410

2.2. Label elements

MATERIAL SAFETY DATA SHEET (MSDS)
LEAD DIOXIDE LR (LEAD PEROXIDE)
2. Hazards identification -DSD (continued)
Labelling EC 67/548 or EC 1999/45
Symbol(s)

Symbol(s)

: O : Oxidizing
 T : Toxic
 N : Dangerous for the environment

R Phrase(s)

: 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.

S Phrase(s)

: S53 : Avoid exposure - obtain special instructions before use.
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).
 S60 : This material and its container must be disposed of as hazardous waste.
 S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words

: Warning

Hazard statements

: H302 : Harmful if swallowed.
 H332 : Harmful if inhaled.
 H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statements
• Prevention

: P271: Use only outdoors or in a well-ventilated area.
 P261: Avoid breathing dust, fume, gas, mist, vapours, spray.
 P273: Avoid release to the environment.
 P264: Wash thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.

• Response

: P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell.
 P391: Collect spillage.
 P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

• Disposal considerations

: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

MATERIAL SAFETY DATA SHEET (MSDS)
LEAD DIOXIDE LR (LEAD PEROXIDE)
2. Hazards identification -DSD (continued)
2.3. Other hazards

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

Substance / Preparation : LEAD DIOXIDE EXTRAPURE

Substance.

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures
4.1. Description of first aid measures

Inhalation : Assure fresh air breathing. Allow the victim to rest. Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

Eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

Ingestion : Obtain emergency medical attention. Do NOT induce vomiting. Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms relating to use : Danger of serious damage to health by prolonged exposure through inhalation. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures
5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

MATERIAL SAFETY DATA SHEET (MSDS)
LEAD DIOXIDE LR (LEAD PEROXIDE)
5. Fire-fighting measures (continued)

Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.

Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection.
Ventilate area.

For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Clean up methods : On land, sweep or shovel into suitable containers. Minimize generation of dust.
Store away from other materials.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage
7.1. Precautions for safe handling

Handling : Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, vapours, spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.

MATERIAL SAFETY DATA SHEET (MSDS)
LEAD DIOXIDE LR (LEAD PEROXIDE)
7. Handling and storage (continued)
7.2. Conditions for safe storage, including any incompatibilities

| | |
|----------------------------|----------------------------------------------------------------------------------------------------------------|
| Storage | : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use. |
| Storage - away from | : Strong bases. Strong acids. Sources of ignition. Direct sunlight. |

7.3. Specific end use(s)

| | |
|----------------------------|---------|
| Specific end use(s) | : None. |
|----------------------------|---------|

8. Exposure controls/personal protection
8.1. Exposure controls

| | |
|---------------------------------|-----------------------------------------------------------------------------|
| Personal protection | : Avoid all unnecessary exposure. |
| • Respiratory protection | : In case of insufficient ventilation, wear suitable respiratory equipment. |
| • Hand protection | : Wear protective gloves. |
| • Eye protection | : Chemical goggles or safety glasses. |
| • Others | : When using, do not eat, drink or smoke. |

8.2. Control parameters

| | |
|-------------------------------------|----------------------|
| Occupational Exposure Limits | : No data available. |
|-------------------------------------|----------------------|

9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

| | |
|---------------------------------------|----------------------|
| Physical state at 20 °C | : Solid. |
| Colour | : Dark brown |
| Odour | : Odorless |
| Odour threshold | : No data available. |
| pH value | : Not applicable. |
| Melting point [°C] | : 2900C |
| Decomposition point [°C] | : N/A |
| Critical temperature [°C] | : N/A |
| Auto-ignition temperature [°C] | : N/A |
| Flammability (solid, gas) | : N/A |
| Flash point [°C] | : N/A |
| Boiling point [°C] | : N/A |

MATERIAL SAFETY DATA SHEET (MSDS)
LEAD DIOXIDE LR (LEAD PEROXIDE)
9. Physical and chemical properties (continued)

| | |
|------------------------------------|----------------------|
| Initial boiling point [°C] | : N/A |
| Final boiling point [°C] | : N/A |
| Evaporation rate | : N/A |
| Vapour pressure [20°C] | : N/A |
| Vapour pressure mm/Hg | : N/A |
| Vapour density | : 8,2 |
| Density [g/cm3] | : 9,38 |
| Relative density, gas (air=1) | : N/A |
| Relative density, liquid (water=1) | : N/A |
| Solubility in water [% weight] | : N/A |
| Solubility in water | : N/A |
| Log Pow octanol / water at 20°C | : No data available. |
| Solubility | : N/A |
| Viscosity at 40°C [mm2/s] | : N/A |

9.2. Other information

| | |
|------------------------------|----------------------|
| Explosive properties | : N/A |
| Explosion limits - upper [%] | : N/A |
| Explosion limits - lower [%] | : N/A |
| Oxidising properties | : No data available. |

10. Stability and reactivity
10.1. Reactivity

| | |
|------------|--------------------|
| Reactivity | : Not established. |
|------------|--------------------|

10.2. Chemical stability

| | |
|--------------------|------------------------------------------------|
| Chemical stability | : Stable under recommended storage conditions. |
|--------------------|------------------------------------------------|

10.3. Possibility of hazardous reactions

| | |
|---------------------|--------------------|
| Hazardous reactions | : Not established. |
|---------------------|--------------------|

10.4. Conditions to avoid

| | |
|---------------------|--------------------------------------------------------|
| Conditions to avoid | : Direct sunlight. Extremely high or low temperatures. |
|---------------------|--------------------------------------------------------|

10.5. Incompatible materials

MATERIAL SAFETY DATA SHEET (MSDS)
LEAD DIOXIDE LR (LEAD PEROXIDE)
10. Stability and reactivity (continued)

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

11. Toxicological information
11.1. Information on toxicological effects
Acute toxicity

- **Inhalation** : Harmful if inhaled.
- **Dermal** : Based on available data, the classification criteria are not met.
- **Ingestion** : Harmful if swallowed.

Corrosion : Based on available data, the classification criteria are not met.

Irritation : Based on available data, the classification criteria are not met.

Sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : Based on available data, the classification criteria are not met.

Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information
12.1. Toxicity

Toxicity information : Very toxic to aquatic life with long lasting effects.

12.2. Persistence - degradability

Persistence - degradability : May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

MATERIAL SAFETY DATA SHEET (MSDS)
LEAD DIOXIDE LR (LEAD PEROXIDE)
12. Ecological information (continued)
12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations
13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information
14.1. Land transport (ADR-RID)

Proper shipping name : LEAD DIOXIDE
UN N° : 1872
H.I. nr : 56
ADR - Class : 5.1
Labelling - Transport : 5.1 : Oxidizing substances. 6.1 : Toxic substances.



ADR - Classification code : OT2
ADR - Group : III
ADR - Packing instructions : P002 R001 LP002
ADR - Limited Quantity : 5 KG
ADR - Tunnel code



: E : Passage forbidden through tunnels of category E.

MATERIAL SAFETY DATA SHEET (MSDS)
LEAD DIOXIDE LR (LEAD PEROXIDE)
14. Transport information (continued)
14.2. Sea transport (IMDG).[English only]

Proper shipping name : LEAD DIOXIDE
 UN N° : 1872
 IMO-IMDG - Class or division : 5.1 : Oxidizing substances. (6.1 : Toxic substances.)
 IMO-IMDG - Packing group : III
 IMO-IMDG - Packing instructions : P002 LP02
 IMO-IMDG - Limited quantities : 5 kg
 IMO-IMDG - Marine pollution : Yes
 EMS-Nr : F-A S-Q

14.3. Air transport (ICAO-IATA).[English only]

Proper shipping name : LEAD DIOXIDE
 UN N° : 1872
 IATA - Class or division : 5.1 : Oxidizing substances. (6.1 : Toxic substances.)
 IATA - Packing group : III
 IATA - Passenger and Cargo Aircraft : ALLOWED
 - Passenger and Cargo - Packing : 559
 instruction
 - Passenger and Cargo - Maximum : 25 kg
 Quantity/Packing
 IATA - Cargo only : ALLOWED
 - Cargo only - Packing instruction : 563
 - Cargo only - Maximum Quantity/ : 100 kg
 Packing
 IATA - Limited Quantities : 10 kg
 ERG-Nr : 5L

15. Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Safety, health and environmental : Ensure all national/local regulations are observed.
 regulations/legislation specific for the substance or mixture
 REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.
 REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

MATERIAL SAFETY DATA SHEET (MSDS)

LEAD DIOXIDE LR (LEAD PEROXIDE)

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

DISCLAIMER:

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- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
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