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## **MATERIAL SAFETY DATA SHEET**

### **LITHIUM PERCHLORATE Trihydrate AR** **MSDS : 13453-78-6**

#### **Section 1: Chemical Product and Company Identification**

##### **Section 1: Chemical Product**

**Product Name:** LITHIUM PERCHLORATE Trihydrate AR

**CAS#:** 13453-78-6

**C.I. No.:** Not available.

**Synonym :** Not available.

**Chemical Name:** Not available.

**Chemical Formula:**  $CLiO_4 \cdot 3H_2O$

**Brand:** OXFORD

##### **Details Of The Supplier Of The Safety Data Sheet:**

**Company identification:**      **OXFORD LAB FINE CHEM LLP**  
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#### **Section 2: Composition and Information on Ingredients**

##### **Composition:**

| Name                              | CAS #      | % by Weight |
|-----------------------------------|------------|-------------|
| LITHIUM PERCHLORATE<br>Trihydrate | 13453-78-6 | 100         |

## Section 3: Hazards Identification

### Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Oxidizing solids (Category 2), H272

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

### Other hazards –

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## Section 4: First Aid Measures

### Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Consult a physician.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### Most important symptoms and effects, both acute and delayed

### Indication of any immediate medical attention and special treatment needed

No data available

## Section 5: Fire and Explosion Data

### Extinguishing media

### Suitable extinguishing media

## Section 5: Fire and Explosion Data(Continued)

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special hazards arising from the substance or mixture

Hydrogen chloride gas, Lithium oxides

### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### Further information

Use water spray to cool unopened containers.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

### Environmental precautions

Do not let product enter drains.

### Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

### Reference to other sections

For disposal see section 13.

## Section 7: Handling and Storage

### Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition

- No smoking. Keep away from heat and sources of ignition.

### Conditions for safe storage, including any incompatibilities

## Section 7: Handling and Storage(Continued)

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Hygroscopic.

Storage class (TRGS 510): Strongly oxidizing hazardous materials

Specific end use(s)

No data available

## Section 8: Exposure Controls/Personal Protection

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties

|   |  |
|---|--|
| a) Appearance Form                              | : crystalline  |
|   | Colour : White   |
| b) Odour  | : No data available  |
| c) Odour  | : Threshold No data available  |
| d) pH   | : No data available  |
| e) Melting point/freezing point                 | : No data available  |
| f) Initial boiling point and boiling range      | : No data available  |
| g) Flash point                                  | : 113 °C - closed cup  |
| h) Evaporation rate                             | : No data available  |
| i) Flammability (solid, gas)                    | : No data available  |
| j) Upper/lower flammability or explosive limits | : No data available  |
| k) Vapour pressure                              | : No data available  |
| l) Vapour density                               | : No data available  |
| m) Relative density                             | : 1,841 g/cm <sup>3</sup> at 25 °C   |
| n) Water solubility                             | : No data available  |
| o) Partition coefficient: noctanol/ water       | : No data available  |
| p) Auto-ignition temperature                    | : No data available  |
| q) Decomposition temperature                    | : No data available  |
| r) Viscosity                                    | : No data available  |
| s) Explosive properties                         | : No data available  |
| t) Oxidizing properties                         | : The substance or mixture is classified as oxidizing with the category 2. |
| u) Molecular Weight                             | : 160,44 g/mol   |

### Other safety information

No data available

## Section 10: Stability and Reactivity Data

Reactivity : No data available

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : No data available

## Section 10: Stability and Reactivity Data (Continued)

**Conditions to avoid :** No data available

**Incompatible materials :** Strong reducing agents

**Hazardous decomposition products**

**Other decomposition products -** No data available.

## Section 11: Toxicological Information

**Information on toxicological effects**

**Acute toxicity**

**LD50 Intraperitoneal - Mouse -** 1.160 mg/kg

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

**Inhalation -** May cause respiratory irritation.

**Aspiration hazard**

No data available

**Additional Information**

**RTECS:** OE3201000

Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and

## Section 11: Toxicological Information (Continued)

hyperactive reflexes may occur as a result of repeated exposure to lithium ion., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Section 12: Ecological Information

### Toxicity

No data available

### Persistence and degradability

No data available

### Bioaccumulative potential

No data available

### Mobility in soil

No data available

### Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### Other adverse effects

No data available

## Section 13: Disposal Considerations

### Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## Section 14: Transport Information

### Land transport (ADR-RID)

|                       |                                   |
|-----------------------|-----------------------------------|
| Proper shipping name  | : PERCHLORATES, INORGANIC, N.O.S. |
| UN N°                 | : 1481                            |
| H.I. nr               | : 50                              |
| ADR – Class           | : 5.1                             |
| Labelling – Transport | : 5.1 : Oxidizing substances.     |
| ADR – Group           | :II                               |

### Sea transport (IMDG) [English only]

|                              |                                   |
|------------------------------|-----------------------------------|
| Proper shipping name         | : PERCHLORATES, INORGANIC, N.O.S. |
| UN N°                        | : 1481                            |
| IMO-IMDG - Class or division | : 5.1 : Oxidizing substances.     |
| IMO-IMDG - Packing group     | :II                               |

### Air transport (ICAO-IATA) [English only]

|                          |                                   |
|--------------------------|-----------------------------------|
| Proper shipping name     | : PERCHLORATES, INORGANIC, N.O.S. |
| UN N°                    | : 1481                            |
| IATA - Class or division | : 5.1 : Oxidizing substances.     |
| IATA - Packing group     | :II                               |

## Section 15: Other Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

Safety, health and environmental regulations/legislation specific for the substance or mixture  
No data available

### Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

### ***Disclaimer:***

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