



# SAFETY DATA SHEET

**MATERION**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Name of the substance** Lithium Peroxide (Li2O2)  
**Identification number** 12031-80-0 (CAS number)  
**Synonyms** None.  
**Document number** L-MSDS0004  
**Issue date** 04-May-2015  
**Version number** 01

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

**Identified uses** Not available.  
**Uses advised against** None known.

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

**Company name** Materion Advanced Chemicals Inc.  
**Address** 407 N. 13th Street  
1316 W. St. Paul Avenue  
Milwaukee, WI 53233  
United States  
**Division** Milwaukee  
**Telephone** 414.212.0257  
**e-mail** advancedmaterials@materion.com  
**Contact person** Noreen Atkinson

### 1.4. Emergency telephone number

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Directive 67/548/EEC or 1999/45/EC as amended

**Classification** O;R7

#### Classification according to Regulation (EC) No 1272/2008 as amended

**Physical hazards**  
Oxidising solids Category 2 H272 - May intensify fire; oxidiser.

#### Hazard summary

**Physical hazards** May cause fire.  
**Health hazards** Not classified for health hazards.  
**Environmental hazards** Not classified for hazards to the environment.  
**Specific hazards** Not available.  
**Main symptoms** Not available.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Lithium Peroxide  
**Hazard pictograms** None.  
**Signal word** Danger  
**Hazard statements**  
H272 May intensify fire; oxidiser.

#### Precautionary statements

**Prevention**  
P210 Keep away from heat.  
P221 Take any precaution to avoid mixing with combustibles.  
P280 Wear protective gloves/eye protection/face protection.

**Response**

P370 + P378

In case of fire: Use appropriate media to extinguish.

**Storage**

Not available.

**Disposal**

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Supplemental label information**

None.

**2.3. Other hazards**

None known.

**SECTION 3: Composition/information on ingredients****3.1. Substances****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Lithium Peroxide	100	12031-80-0 234-758-0	-	-	
<b>Classification:</b>	<b>DSD:</b> O;R7				
	<b>CLP:</b> Ox. Sol. 2;H272				

**SECTION 4: First aid measures****General information** Not available.**4.1. Description of first aid measures****Inhalation** Not available.**Skin contact** Not available.**Eye contact** Not available.**Ingestion** Not available.**4.2. Most important symptoms and effects, both acute and delayed** Not available.**4.3. Indication of any immediate medical attention and special treatment needed** Not available.**SECTION 5: Firefighting measures****General fire hazards** Not available.**5.1. Extinguishing media****Suitable extinguishing media** Not available.**Unsuitable extinguishing media** Not available.**5.2. Special hazards arising from the substance or mixture** Not available.**5.3. Advice for firefighters****Special protective equipment for firefighters** Not available.**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel** Not available.**For emergency responders** Not available.**6.2. Environmental precautions** Not available.**6.3. Methods and material for containment and cleaning up** Not available.

**6.4. Reference to other sections** Not available.

## **SECTION 7: Handling and storage**

**7.1. Precautions for safe handling** Not available.

**7.2. Conditions for safe storage, including any incompatibilities** Not available.

**7.3. Specific end use(s)** Not available.

## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

**Occupational exposure limits** No exposure limits noted for ingredient(s).

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures** Not available.

**Derived no-effect level (DNEL)** Not available.

**Predicted no effect concentrations (PNECs)** Not available.

### **8.2. Exposure controls**

**Appropriate engineering controls** Not available.

#### **Individual protection measures, such as personal protective equipment**

**General information** Not available.

**Eye/face protection** Not available.

##### **Skin protection**

- **Hand protection** Not available.

- **Other** Not available.

**Respiratory protection** Not available.

**Thermal hazards** Not available.

**Hygiene measures** Not available.

**Environmental exposure controls** Not available.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

#### **Appearance**

**Physical state** Solid.

**Form** Not available.

**Colour** Not available.

**Odour** Not applicable.

**Odour threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

#### **Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Vapour pressure** < 0,0000001 kPa at 25 °C

**Vapour density** Not available.

<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Solubility (other)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not available.
<b>Oxidizing properties</b>	Not available.
<b>9.2. Other information</b>	
<b>Density</b>	2,14 g/cm <sup>3</sup>
<b>Molecular formula</b>	Li <sub>2</sub> O <sub>2</sub>
<b>Molecular weight</b>	45,88 g/mol
<b>Specific gravity</b>	2,14

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	Not available.
<b>10.2. Chemical stability</b>	Not available.
<b>10.3. Possibility of hazardous reactions</b>	Not available.
<b>10.4. Conditions to avoid</b>	Not available.
<b>10.5. Incompatible materials</b>	Not available.
<b>10.6. Hazardous decomposition products</b>	Not available.

## SECTION 11: Toxicological information

**General information** Not available.

### Information on likely routes of exposure

<b>Inhalation</b>	Not available.
<b>Skin contact</b>	Not available.
<b>Eye contact</b>	Not available.
<b>Ingestion</b>	Not available.

**Symptoms** Not available.

### 11.1. Information on toxicological effects

<b>Acute toxicity</b>	No data available.
<b>Skin corrosion/irritation</b>	Not available.
<b>Serious eye damage/eye irritation</b>	Not available.
<b>Respiratory sensitisation</b>	Not available.
<b>Skin sensitisation</b>	Not available.
<b>Germ cell mutagenicity</b>	Not available.
<b>Carcinogenicity</b>	Not available.
<b>Reproductive toxicity</b>	Not available.
<b>Specific target organ toxicity - single exposure</b>	Not available.
<b>Specific target organ toxicity - repeated exposure</b>	Not available.
<b>Aspiration hazard</b>	Not available.
<b>Mixture versus substance information</b>	Not available.
<b>Other information</b>	Not available.

## SECTION 12: Ecological information

**12.1. Toxicity** No toxicity data noted for the ingredient(s).

<b>12.2. Persistence and degradability</b>	Not available.
<b>12.3. Bioaccumulative potential</b>	Not available.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	Not available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	Not available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	Not available.
<b>Contaminated packaging</b>	Not available.
<b>EU waste code</b>	Not available.

## SECTION 14: Transport information

### ADR

<b>14.1. UN number</b>	UN1472
<b>14.2. UN proper shipping name</b>	LITHIUM PEROXIDE
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	5.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	5.1
<b>Hazard No. (ADR)</b>	50
<b>Tunnel restriction code</b>	E
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not available.

### RID

<b>14.1. UN number</b>	UN1472
<b>14.2. UN proper shipping name</b>	LITHIUM PEROXIDE
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	5.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	5.1
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not available.

### ADN

<b>14.1. UN number</b>	UN1472
<b>14.2. UN proper shipping name</b>	Lithium Peroxide
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	5.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	5.1
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not available.

### IATA

<b>14.1. UN number</b>	UN1472
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**14.2. UN proper shipping name** Lithium peroxide

**14.3. Transport hazard class(es)**

**Class** 5.1

**Subsidiary risk** -

**14.4. Packing group** II

**14.5. Environmental hazards** No.

**ERG Code** 5L

**14.6. Special precautions for user** Not available.

**Other information**

**Passenger and cargo aircraft** Allowed.

**Cargo aircraft only** Allowed.

#### IMDG

**14.1. UN number** UN1472

**14.2. UN proper shipping name** LITHIUM PEROXIDE

**14.3. Transport hazard class(es)**

**Class** 5.1

**Subsidiary risk** -

**14.4. Packing group** II

**14.5. Environmental hazards**

**Marine pollutant** No.

**EmS** F-G, S-Q

**14.6. Special precautions for user** Not available.

ADN; ADR; IATA; IMDG; RID



## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I, as amended**

Not listed.

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II, as amended**

Not listed.

**Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

## Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

## Restrictions on use

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use**

Not regulated.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended**

Not listed.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended**

Not listed.

## Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances**

Not listed.

**Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended**

Not listed.

**Directive 94/33/EC on the protection of young people at work, as amended**

Not listed.

**National regulations** Not available.

**15.2. Chemical safety assessment** Not available.

## SECTION 16: Other information

**List of abbreviations** Not available.

**References** Not available.

**Information on evaluation method leading to the classification of mixture** Not available.

**Full text of any statements or R-phrases and H-statements under Sections 2 to 15**  
R7 May cause fire.  
H272 May intensify fire; oxidiser.

**Revision information** None.

**Training information** Not available.