


MSDS	Material Safety Data Sheet
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LITHIUM HYDROXIDE MONOHYDRATE

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

PRODUCT NAME	Lithium hydroxide monohydrate
RECOMMENDED USE & RESTRICTIONS ON USE	Research use only
INFORMATION OF MANUFACTURER/IMPORTER/SUPPLIER	
COMPANY	Eurolab [®]
ADDRESS	54-58 High Street Edgware, Middlesex, HA8 7EJ, UK
EMERGENCY PHONE	
E-MAIL ADDRESS	

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION	<p>Corrosive to metals : Category 1 Acute toxicity(Oral) : Category 3 Acute toxicity(Inhalation : dust/mist) : Category 3 Skin corrosion/irritation : Category 1 Serious eye damage/Eye irritation : Category 1 Specific target organ systemic toxicity Single exposure : Category 1 Specific target organ systemic toxicity Repeated exposure : Category 1</p>	
LABEL ELEMENTS	PICTOGRAM	
	HAZARD SYMBOL	DANGER
	HAZARD STATEMENTS	<p>May be corrosive to metals Toxic if swallowed Causes severe skin burns and eye damage Causes serious eye damage Toxic if inhaled</p>

		<p>Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.</p>
	<p>PRECAUTIONARY STATEMENTS</p>	<p>Keep only in original container. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed: Call a POISON CENTER or doctor/physician. Immediately call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician. Get medical advice/attention if you feel unwell. Specific treatment (see ... on this label). Rinse mouth. Take off contaminated clothing and wash before reuse. Absorb spillage to prevent material damage. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in corrosive resistant container with a resistant inner liner. Dispose of this material and its container in accordance with</p>

		local/regional/national/international regulation.
OTHER HAZARDS (NFPA)	Health	3
	Fire	0
	Reactivity	1

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY	SYNONYMS	CAS NUMBER	ASSAY
Lithium hydroxide monohydrate	-	1310-66-3	Above 95%(EP)

4. FIRST AID MEASURES

GENERAL ADVICE	Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.
IN CASE OF EYE CONTACT	Remove any contact lenses at once. Flush eyes well with a large amount of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. Transport to a hospital immediately.
IN CASE OF SKIN CONTACT	Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, transport to a hospital immediately.
IF INHALED	Move victim to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration. Maintain normal body temperature with a blanket. If irritation persists, transport to a hospital immediately.
IF SWALLOWED	Rinse mouth, give plenty of water to dilute the substance. Do not induce vomiting. Never give anything by mouth to an unconscious person. Transport to a hospital immediately.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA	Carbon dioxide, dry chemical powder, foam, water
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL	Toxic and irritating dust, fumes or smoke may be emitted.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:	Firemen should wear normal protective equipment(full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid raising dust and avoid contact with skin and eyes.
ENVIRONMENTAL PRECAUTIONS	Prevent spills from entering sewers, watercourses or low areas.
METHODS FOR CLEANING UP	Do not touch spilled material without suitable protection. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING	Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection. This material is hygroscopic.
CONDITIONS FOR SAFE STORAGE	Store away from sunlight in well-ventilated dry place at room temperature. Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE STANDARDS	ACGIH	No data
APPROPRIATE ENGINEERING CONTROLS:		Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
INDIVIDUAL PROTECTION MEASURES	RESPIRATORY PROTECTION	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup Sigma-Aldrich - 270997 Page 4 of 7 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).
	EYE PROTECTION	Face shield and safety glasses 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	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	FORM	Solid
	COLOR	White

ODOUR		No data
ODORODOUR THRESHOLD VALUE		No data
pH		14 (1N solution)
FREEZING POINT :		462 °C
INITIAL BOILING POINT		920 °C
FLASH POINT		No data
EVAPORATING RATE		No data
FLAMMABILITY(solid, gas)		No data
EXPLOSIVE LIMITS		No data
VAPOR PRESSURE		No data
SOLUBILITY IN	WATER	10.7% (20°C)
VAPOR DENSITY		No data
RELATIVE DENSITY		1.51
PARTITION COEFFICIENT: N-OCTANOL/WATER		No data
AUTOIGNITION TEMPERATURE		No data
DECOMPOSITION TEMPERATURE		No data
VISCOSITY		No data
MOLECULAR WEIGHT		41.96

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY & POSSIBILITY OF HAZARDOUS REACTIONS	Stable under recommended storage conditions.
CONDITIONS TO AVOID	Sunlight, heat, moisture, air
INCOMPATIBLE MATERIALS	Strong acids, aluminum, zinc
HAZARDOUS DECOMPOSITION PRODUCTS	Lithium compounds may be formed.

11. TOXICOLOGICAL INFORMATION

INFORMATION ON THE LIKELY	No data
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ROUTES OF EXPOSURES:		
HEALTH HAZARD INFORMATION	ACUTE TOXICITY	LD50(oral, rat) : 210mg/kg (RTECS 2000) LC50(inhalation,dust,rat) : 0.96 mg/L/4hr
	SKIN CORROSION/ SKIN IRRITATION	No data
	EYE DAMAGE/ EYE IRRITATION	No data
	RESPIRATORY SENSITIZATION	No data
	SKIN SENSITIZATION	No data
	CARCINOGENICITY	IARC: No data OSHA: No data ACGIH: No data NTP: No data EU CLP: No data
	GERM CELL MUTAGENICITY	No data
	TOXIC TO REPRODUCTION	No data
	SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE	Causes airway irritation and pulmonary edema (ICSC (1998), HSFS (2004))
	SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE	Bronchitis accompanied cough, irritation, shortness of breath appears (HSFS(2004))
	ASPIRATION HAZARD	No data

12. ECOLOGICAL INFORMATION

ECOTOXICITY	TO FISH	No data
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	TO CRUSTACEA	No data
	TO OTHER AQUATIC LIFE	No data
PERSISTENCE/ DEGRADABILITY	PERSISTENCE	No data
	DEGRADABILITY	No data
BIOACCUMULATION POTENTIAL	ACCUMULATION	No data
	BIODEGRADABILITY	No data
MOBILITY IN SOIL		No data
OTHER ADVERSE EFFECTS		No data

13. DISPOSAL CONSIDERATION

DISPOSAL METHODS	Use only licensed transporters and permitted facilities for waste disposal.
DISPOSAL CONSIDERATIONS	Dispose of this material and its container in accordance with local/regional/national/international regulation.

14. TRANSPORT INFORMATION

IATA	
UN NUMBER	2680
UN PROPER SHIPPING NAME	BELITHIUM HYDROXIDE
TRANSPORT HAZARD CLASS	8
PACKING GROUP	II
MARINE POLLUTANT	No data
SPECIAL PRECAUTIONS FOR USER	
IN CASE OF FIRE	F – A
IN CASE OF LEAK	S - B

15. REGULATORY INFORMATION

Occupational Safety and Health Act	Not listed
Toxic Chemicals Control Act	Not listed

Safety Control of Dangerous Substance Act		Not listed
Wastes Control Act		Not listed
Persistent Organic Pollutants Control Act		Not listed
US REGULATIONS	OSHA	Not listed
	CERCLA	Not listed
	EPCRA302	Not listed
	EPCRA304	Not listed
	EPCRA313	Not listed
	ROTTERDAM CONVENTION	Not listed
	STOCKHOLM CONVENTION	Not listed
EU CLASSIFICATION INFORMATION	MONTREAL PROTOCOL	Not listed
	CLASSIFICATION	No data
	RISK PHRASES	No data
	SAFETY PHRASES	No data

16. OTHER INFORMATION	
ORIGINATED DATE	2012.01.01
REVISION NUMBER AND DATE	Revision number: 0 Final revision data: 2012.01.01
OTHER	The information in this MSDS is based on several references and the present state of our knowledge. However, the MSDS dose not always cover all information about product. The information in this MSDS is only provision of information, and It does not represent any guarantee of the properties of the product.