

## LITHIUM HYDROXIDE MONOHYDRATE PURIFIED

CAS No. 1310-66-3

QS-PDS-1021 Revision 00

<b>Formula</b>	LiOH·H <sub>2</sub> O
<b>Appearance</b>	White crystals
<b>Application</b>	A free-flowing, granular solid with greatly reduced levels of CaO, NaOH and Mg. Purified grade is used in the manufacture of fine chemicals and specialty greases. It is also suitable for use in production of cathode materials for lithium ion batteries.

### Product Specifications

### Guaranteed

LiOH, wt%	56.5	min
CO <sub>2</sub> , wt%	0.35	max
Cl, wt%	0.0020	max
SO <sub>4</sub> , wt%	0.010	max
CaO, wt%	0.020	max
Fe <sub>2</sub> O <sub>3</sub> , wt%	0.0020	max
NaOH, wt%	0.0030	max
Acid Insolubles, wt%	0.010	max

<b>Other Data</b>	Bulk density	Loose	0.9 g/cm <sup>3</sup>
		Tap	1.0 g/cm <sup>3</sup>

<b>Physical Properties</b>	Molecular weight	41.96
	Density @ 20°C	1.51 g/cm <sup>3</sup>
	Standard heat of formation	-188.9 kcal/mole
	Standard heat of fusion	-0.867 kcal/mole
	Specific heat @ 25°C	0.453 cal/g/°C
	Loses water of hydration	100 -110°C

<b>Water Solubility</b>	Temperature	Weight percent LiOH in saturated solution*
	(°C)	
	0	
	20	
	100	14.8

\* The solid phase in equilibrium with saturated solution is the monohydrate, LiOH·H<sub>2</sub>O.

### Air Treatment Construction Energy Fine Chemicals Glass & Ceramics Greases & Lubricants Polymers Pool Water Treatment

<b>MARKETS SERVED</b>	<b>NORTH AMERICA AND HEADQUARTERS</b> FMC Lithium Seven LakePointe Plaza 2801 Yorkmont Road, Suite 300 Charlotte, NC 28208 P: +1.704.426.5300 F: +1.704.426.5370	<b>EUROPE</b> FMC Chemicals Commercial Road Bromborough Merseyside CH62 3NL, England P: +44.151.482.7356 F: +44.151.482.7361	<b>JAPAN</b> FMC Lithium 9F, Aoyama Building 1-2-3, Kita-Aoyama Minato-ku, Tokyo 107-0061, Japan T: +81.3.3402.3716 F: +81.3.3402.3700	<b>CHINA</b> FMC Lithium 15F Far East International Plaza No. 317 Xianxia Road Shanghai 200051 P. R. China T: +86.21.6235.1919 T: +86.21.6235.1917	<b>INDIA</b> FMC India Private Limited Embassy Star 8, Palace Road High Grounds Bangalore 560052, India T: +91.80.2238.4311 F: +91.80.2238.5255	<b>TAIWAN</b> FMC Lithium 9F-1, 263 Tun Hwa S. Rd. Sec. 1 Taipei, Taiwan T: +866.2.2705.4400 F: +866.2.2702.7460
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**Toxicity/Safety Data** Corrosive. Odorless, white crystals. Corrosive to eyes (may cause blindness), skin, nose and throat. Continuous inhalation exposure may cause lung damage.

Additional information on toxicity and safety is contained in the Material Safety Data Sheet (MSDS) available on this product.

**Handling/Storage/Disposal** Do not get in eyes, on skin or clothing. Avoid breathing dust. Wash thoroughly after handling. Keep container closed. Store away from acids and water.

Dispose of waste according to local and Federal laws and regulations.

**Shipping Containers** 50lb (22.7kg) bags, shipped 40 to a pallet.  
100 kg polyethylene-lined fiber drums  
Supersacks of discrete weight between 400 and 2200 lb (182 - 1000kg)

**Shipping Limitations** Shipments of lithium hydroxide are described as "Lithium Hydroxide, UN 2680." All shipments are Hazard Class 8 and require "Corrosive" labels.

Post	Not acceptable
Parcel, Air	Restricted quantities
Sea	Class 8 (IMDG)
Road, Rail	Class 8.41 b (RID/ADR)

For shipments within Europe labeling for supply requirements are:

C	Corrosive
R&S phrases	see Material Safety Data Sheet

Responsible Care initiative dictates that all shipments of lithium chemicals must be transported in a DOT-approved vehicle in a responsible manner (i.e., no flat bed trucks).