

**Formula** LiOH·H<sub>2</sub>O

**Appearance** White crystals

**Application** A free-flowing, granular solid used in the production of cathode materials for lithium ion batteries. It is also well suited in the manufacturing of high-purity lithium greases, dyes, specialty resins and many other chemical specialties.

**Product Specifications**
**Guaranteed**

LiOH, wt%	56.5	min
CO <sub>2</sub> , wt%	0.35	max
Cl, wt%	0.003	max
SO <sub>4</sub> , wt%	0.05	max
CaO, wt%	0.03	max
Fe <sub>2</sub> O <sub>3</sub> , wt%	0.003	max
NaOH, wt%	0.05	max
Acid Insolubles, wt%	0.005	max

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

**Physical Properties** 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 (°C)	Weight Percent LiOH in saturated solution*
	0	10.7
	20	10.9
	100	14.8

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

**Toxicity/Safety Data** Causes severe skin burns and eye damage. Harmful if swallowed. Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Remove/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.

*COMPLETE INFORMATION ON TOXICITY AND SAFETY IS CONTAINED IN THE SAFETY DATA SHEET (SDS) AVAILABLE FOR 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** 20 kg bags, shipped 50 to a pallet.  
25kg bags, shipped 40 to a pallet (BC only)  
50lb bags, shipped 40 to a pallet (BC only)  
100 kg polyethylene-lined fiber drums (BC only)  
450kg, 1000kg Supersacks

**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