



Lithium Hydroxide Monohydrate

Safe Handling Guide

June 2024



DISCLAIMER

In preparing this guide, Arcadium Lithium has utilized the best information known and available at the time of printing. Arcadium Lithium recognizes that over time techniques, methods and equipment related to the safe handling of lithium metal will evolve, dating the information within this guide.

Additionally, the information presented in this Guide has been written to address most typical situations, environments and facilities, based upon Arcadium Lithium's experiences. However, Arcadium Lithium recognizes that each customer's situation is different and necessitates specific solutions to fit those requirements.

Arcadium Lithium seeks to provide up-to-date solutions to the questions or concerns that our customers may have. Please contact us to discuss your specific needs.

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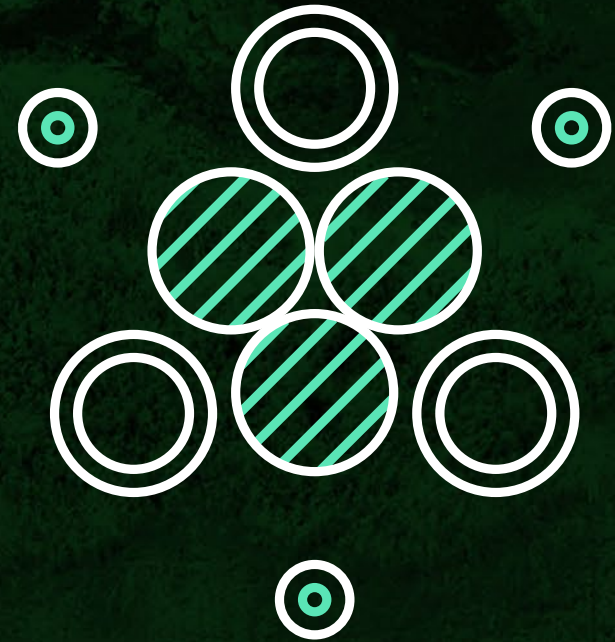
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Physical Properties



PHYSICAL PROPERTIES

Appearance	White Crystals
Molecular Formula	LiOH
Molecular Weight	41.96
Available Lithium Hydroxide	57.4 Typical 56.5 Minimum
Bulk Density	Lose 0.9 g/cm ³ Tap 1.0 g/cm ³
Typical particle size	> 20 mesh less than 3%
Water Solubility	10.7% LiOH at 0 °C 10.9% LiOH at 20 °C 14.8% LiOH at 100 °C

HAZARDS



PHYSICAL HAZARDS

- Corrosive
- Incompatible materials – Acids, aluminum & zinc
- Not an Oxidizer
- Noncombustible
- Does not polymerize
- Does not auto-ignite
- Not sensitive to static discharge
- Does not biodegrade

HAZARDS



HEALTH HAZARDS

Corrosive to the eyes (may cause blindness), skin, nose and throat

Continuous inhalation exposure may cause lung damage

Use local exhaust ventilation to reduce airborne concentrations



TOXICOLOGICAL INFORMATION

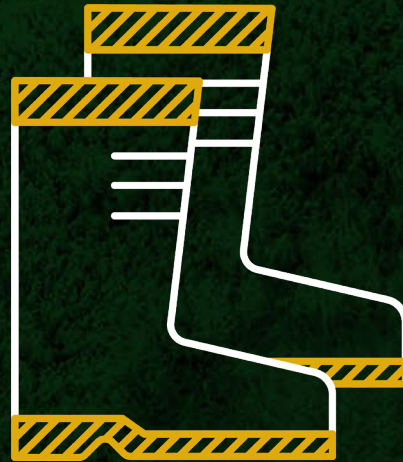
Corrosive



ENVIRONMENTAL HAZARDS

Harmful to aquatic life

HANDLING



HANDLING

- Avoid contamination with incompatible materials
- Product should be kept cool and dry
- Five-year shelf life if stored properly
- Avoid spills

PERSONAL PROTECTIVE EQUIPMENT

Eyes and Face: Safety goggles

Respiratory: Use local exhaust ventilation to reduce airborne concentrations. When adequate ventilation is not available, wear a respirator approved for protection against inorganic dust

Protective Clothing: Gloves (Nitrile) and suitable protective clothing (typically long sleeve shirt and pants)

Work Hygienic Practices: Quick-drench eyewash and safety shower

STORAGE

- Store in a cool, dry location
- Keep containers closed and sealed
- Do not store close to acids or water

TRANSPORTATION

Proper Shipping Name	Lithium hydroxide
Classification	8, Corrosive
UN Number	UN2680
Packing Group	II
Marine Pollutant	No

EMERGENCY GUIDELINES



FIRST AID MEASURES



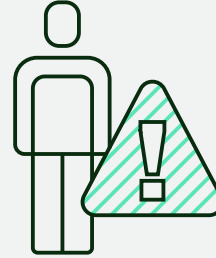
EYES

Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. See a physician immediately.



SKIN

Immediately flush with plenty of water while removing contaminated clothing and/or shoes, and thoroughly wash with soap and water. Obtain immediate medical attention. Contact a physician if necessary.



INGESTION

Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a physician immediately.



INHALATION

Remove to fresh air. If breathing discomfort occurs and persists, see a medical doctor. If breathing has stopped, give artificial respiration and see a physician immediately.

FIRE FIGHTING

- Lithium hydroxide monohydrate is noncombustible.
- If lithium hydroxide monohydrate is involved in fire fighting activities any run-off should be contained as it will potentially be of high pH.
- Wear full protective clothing and self-contained breathing apparatus (SCBA) for fire fighting to guard against possible exposure to lithium hydroxide monohydrate.

MORE INFORMATION

For more information email us at:
technicalsupport@arcadiumlithium.com

In case of an emergency call:
CHEMTREC at 1-800-424-9300