

SAFE HANDLING GUIDE FOR LITHIUM HYDROXIDE MONOHYDRATE

2022

DISCLAIMER

In preparing this guide, Livent has utilized the best information known and available at the time of printing. Livent 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 Livent's experiences. However, Livent recognizes that each customer's situation is different and necessitates specific solutions to fit those requirements.

Livent 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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PHYSICAL PROPERTIES

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Appearance	White Crystals
Molecular Formula	LiOH
Molecular Weight	41.96
Available lithium hydroxide	57.4 typical 56.5 minimum
Bulk Density	Loose 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

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

STABILITY

Lithium Hydroxide Monohydrate is stable under normal storage and temperature conditions

ENVIRONMENTAL HAZARDS

Harmful to aquatic life



HANDLING

HANDLING

Avoid contamination with incompatible materials

Product should be kept cool and dry

5 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:

Rubber gloves and apron

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.

FOR FURTHER INFORMATION

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For Emergency

CHEMTREC 800-424-9300





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