

SAFETY DATA SHEET

LITHIUM HYDROXIDE

SECTION 1: Identification of the substance/mixture and of the company/undertaking Trade name:

1.1 Product identifier:	
CAS Number:	1310-65-2
EC number:	215-183-4
1.2 SYNONYMS:	- Lithium hydroxide monohydrate - Lithium hydroxide anhydrous - Lithium hydrate - Lithium hydroxide

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Corrosive to metals (Category 1) Skin corrosion/damage (Category 1A) Serious Eye Damage/Eye Irritation (Category 1)
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	H290: May be corrosive to metals. H314: Causes severe skin burns and eye damage.
Precautionary Statements:	P280: Wear protective gloves, eye protection, and face protection. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

	P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P406: Store in a corrosion-resistant container.
2.3 Other hazards:	
Inhalation:	can cause respiratory irritation, coughing, and shortness of breath, and prolonged exposure may lead to lung damage.
Ingestion:	can cause severe irritation or burns to the mouth, throat, esophagus, and gastrointestinal tract, leading to symptoms such as nausea, vomiting, abdominal pain, and potentially systemic toxicity.
Skin Contact:	can cause severe chemical burns, irritation, and tissue damage, especially with prolonged exposure.
Eye contact:	can cause severe irritation, burns, and permanent damage to the eyes, potentially leading to blindness.
Chronic Exposure:	can cause long-term damage to the skin, eyes, and respiratory system, and may lead to systemic effects such as kidney or liver damage if inhaled or ingested over extended periods.
Aggravation of pre-existing conditions :	may aggravate pre-existing conditions such as respiratory disorders (e.g., asthma), skin conditions (e.g., eczema), and kidney or liver diseases.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 1310-65-2 LITHIUM HYDROXIDE
Identification number(s):	EC number: 215-183-4

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
After skin contact:	Remove contaminated clothing. Wash with soap and water. Cover the irritated skin with an emollient. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion. Give lots of water to drink. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	can cause skin and eye irritation, respiratory discomfort, and gastrointestinal symptoms if ingested, while delayed effects may include persistent skin irritation, respiratory issues, or potential organ toxicity with prolonged exposure.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Water spray. Alcohol-resistant foam. Dry chemical.
5.2 Special hazards arising from the substance or mixture:	None known. Can form oxides by thermal decomposition.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device .

	Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	DO NOT TOUCH. Corrosive liquid. Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
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7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	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. Wash and dry hands.

	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Solid
Colour:	White
Odour:	No data available
pH-value:	14
Melting point/Melting range:	450°C
Boiling point/Boiling range:	No data available
Flammability (solid, gaseous):	Not flammable
Ignition temperature:	Not applicable
Decomposition temperature:	Not applicable
Self-igniting:	Not applicable
Flash point:	Not applicable
Danger of explosion:	Not applicable
Explosion limits: Lower:	No data available
Explosion limits: Upper:	No data available
Vapour pressure:	Not applicable
Density at 20 °C:	No data available
Relative density:	No data available
Vapour density:	No data available
Evaporation rate:	No data available
Solubility in / Miscibility with- water at 20 °C:	Moderately soluble
Partition coefficient:(n- octanol/water)	No data available
Viscosity:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity	No data available
10.2 Chemical stability	This chemical is stable under storage conditions.

10.3 Possibility of hazardous reactions	No data available
10.4 Conditions to avoid	Exposure to moist air, water, heat, incompatible materials, heat, air. Air sensitive. Absorbs carbon dioxide from the air. Hygroscopic. Absorbs moisture or water from the air.
10.5 Incompatible materials	Reactive with oxidizing agents, acids.
10.6 Hazardous decomposition products	Oxides of carbon, oxides of nitrogen.
10.7 Further information	Incompatible with aluminum, carbon dioxide, zinc, aluminum, moisture (hygroscopic).

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat) : no data available LD50 (Dermal, Rabbit) : no data available LC50 (Inhalation Rat) : no data available
Skin corrosion/Irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory damage/irritation:	No data available
Ingestion:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Moderately biodegradable.

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	No data available
12.2 Persistence and degradability:	moderately biodegradable.
12.3 Bioaccumulative potential:	No data available
12.4 Mobility in soil:	No data available
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Mild Soap and Water, Dilute Acid, Commercial Neutralizing Agents.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	2680
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	Lithium hydroxide
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	8
14.4 Packing group · ADR, IMDG, IATA:	2
14.5 Environmental hazards:	No data available
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is classified in listed substance as corrosive.
Named dangerous substances:	This substance is listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has been carried out under REACH regulation.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.