

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218.0072

IDENTITY (As Used on Label and List) M-20.2	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
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Section I

Manufacturer's Name Ocenco Inc.	Emergency Telephone Number (800) 424-9300 (Chemtrec)
Address (Number, Street, City, State, and ZIP Code) 10225 82 nd Ave Pleasant Prairie, WI 53158	Telephone Number for Information (262) 947-9000
	Date Prepared 5/21/14
	Signature of Preparer (optional)

Section II – Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Lithium Hydroxide – Anhydrous CAS# 1310-65-2	Not Established	Not Established	1 mg/m ³ ceiling AIHA WEEL	>99
Compressed Oxygen CAS# 7782-44-7	N/A	N/A	N/A	N/A
Lithium Hydroxide is classified as a Corrosive Solid Class 8, UN2680				
Oxygen is classified as Oxygen, Compressed Class 2.2, UN1072				
Except as noted, sections III through VIII apply to only Lithium Hydroxide.				

Section III – Physical/Chemical Characteristics

Boiling Point N/A	Specific Gravity (H ₂ O = 1) 1.5
Vapor Pressure (mm Hg) N/A	Melting Point 450-470°C (842-879°F)
Vapor Density (AIR = 1) N/A	Evaporation Rate (Butyl Acetate = 1) N/A
Solubility in Water @ 20°C: 13g/100cc	
Appearance and Odor White, Odorless, Crystalline solid	

Section IV – Fire and Explosion Hazard Data

Flash Point (Method Used) Not flammable	Flammable Limits N/A	LEL N/A	UEL N/A
Extinguishing Media Lithium Hydroxide is not flammable. Use fire extinguishing material appropriate for surrounding fires			

Special Fire Fighting Procedures

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, firefighters should control runoff water to prevent environmental contamination.

Unusual Fire and Explosion Hazards

Lithium Hydroxide is corrosive and presents a severe contact hazard to firefighters. When involved in a fire, Lithium Hydroxide may decompose and produce irritating fumes and toxic gases (lithium compounds). Compressed Oxygen vigorously accelerates combustion.

(Reproduce Locally)

OSHA 173, Sept. 1985

Section V – Reactivity Data

Stability	Unstable		Conditions to Avoid Contact with strong acids.
	Stable	X	
Incompatibility (Materials to Avoid): Lithium Hydroxide is not compatible with strong acids. Lithium Hydroxide is corrosive to aluminum, lead and zinc.			
Hazardous Decomposition or Byproducts None			
Hazardous Polymerization	May Occur		Conditions to Avoid Mixing Lithium Hydroxide with incompatible chemicals.
	Will Not Occur	X	

Section VI – Health Hazard Data

Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Ingestion? Yes
Health Hazards (Acute and Chronic) Chronic: Repeated skin overexposure may cause dermatitis (dry, red skin). Lithium poisoning may result in kidney and central nervous system effects			
Target Organs: Acute: Eyes, skin, mucous membranes. Chronic: Skin, Nervous System, Kidney.			
Carcinogenicity:	NTP? No	IARC Monographs? No	OSHA Regulated? No
Lithium Hydroxide is not listed as a carcinogen or suspected carcinogen.			
Signs and Symptoms of Exposure Irritation or burns of contaminated skin, eyes, and tissues of the respiratory system.			
Medical Conditions Generally Aggravated by Exposure:	Pre-existing reparatory, skin, central nervous system, and kidney conditions can be aggravated by overexposure to Lithium Hydroxide.		
Emergency and First Aid Procedures:			
Skin Exposure: If Lithium Hydroxide contaminates the skin, immediately begin decontamination with running water. Do not interrupt flushing. Minimum flushing time is 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victims must seek immediate medical attention if adverse effect occurs.			
Eyes: If Lithium Hydroxide contaminates the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 30 minutes. Victims must seek immediate medical attention if any adverse effect occurs.			
Inhalation: If Lithium Hydroxide is inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.			
Ingestion: If Lithium Hydroxide is swallowed. CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. DO NOT INDUCE VOMITING, unless directed by medical personnel. If conscious, have victim rinse mouth with water. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.			

Section VII – Precautions for Safe Handling and Use

<p>Steps to Be Taken in Case Material is Released or Spilled Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area and protect people. The minimum Personal Protective Equipment recommended for response to non-identical releases should be Level C: double-gloves (nitrile gloves over latex gloves), chemical resistant suit and boots, hard-hat, and air-purifying respirator with high efficiency particulate filter. Self-Contained Breathing Apparatus would be worn in situations where the oxygen level is below 19.5% or is unknown. Sweep up or vacuum spilled Lithium Hydroxide carefully, avoiding the generation of dusts. Decontaminate the area thoroughly. Place all spilled residue in a suitable container and seal.</p>
<p>Waste Disposal Method Dispose of in accordance with U.S. Federal, State, and local or Canadian solid waste disposal regulations.</p>
<p>Precautions to Be taken in Handling and Storing Inspect containers of Lithium Hydroxide for leaks or damage.</p>
<p>Washing thoroughly after handling Lithium Hydroxide</p>
<p>Other Precautions Do not eat, drink, or smoke while handling this product.</p>

Section VIII – Control Measures

<p>Respiratory Protection (<i>Specify Type</i>) If ventilation is inadequate, and approved dust/mist respirator may be required.</p>		
<p>Ventilation</p>	<p>Local Exhaust Adequate</p>	<p>Special None</p>
	<p>Mechanical (<i>General</i>) May be needed</p>	<p>Other None</p>
<p>Protection Gloves Neoprene Gloves for routine industrial use.</p>	<p>Eye Protection Splash goggles and face shield</p>	
<p>Other Protective Clothing or Equipment Use body clothing appropriate for task (e.g. Apron or Protective Suit)</p>		
<p>Work/Hygienic Practices As with all chemicals, avoid getting Lithium Hydroxide ON YOU or IN YOU. Wash thoroughly after handling Lithium Hydroxide</p>		

Section IX – Transport Information

<p>UN Number: UN3072</p>
<p>UN Proper Shipping Name: Life-saving Appliance not Self Inflating</p>
<p>Class: 9</p>
<p>Labels: 9</p>

* U.S.G.P.O.: 1986 – 491 - 529/45775