

Ocenco M-20.2 Emergency Escape Breathing Device

Article information Sheet

The M-20.2 EEBD is an “article” as defined in the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200) and is therefore outside the scope of the Global Harmonized System and exempt from the GHS labelling and SDS classification criteria. This document is provided as a courtesy in response to customer requests.

Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Substances

Product Name: M-20.2 EEBD

1.2. Intended Use of the Product

Emergency Escape Breathing Device (EEBD).

1.3. Name, Address, and Telephone of the Responsible Party

Company

Ocenco Inc.

10225 82nd Ave

Pleasant Prairie, WI 53158

(262) 947-9000

1.4. Emergency Telephone Number

Emergency Number : (800) 424-9300 (Chemtrec) - US & Canada
(703)-527-3887 - International

SECTION 2: HAZARDS IDENTIFICATION

This product is exempt from hazardous classification according to OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances**

This product is an emergency escape breathing device. It contains a canister of lithium hydroxide and a cylinder of oxygen that are physically separate from one another in the device.

Name	Product Identifier	%	GHS-US classification
Canister:			
Lithium hydroxide	(CAS-No.) 1310-65-2	100	(Inhalation: dust,mist), H331 Skin Corr. 1B, H314 Eye Dam. 1, H318
Cylinder:			
Oxygen	(CAS-No.) 7782-44-7	100	Ox. Gas 1, H270

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

First-aid Measures General:

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation: If exposed to contents of canister : When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if adverse health effects persist or are sever.

First-aid Measures After Skin Contact: If exposed to lithium hydroxide canister contents: flush skin with plenty of water. Wash contaminated clothing before reuse. Get medical advice/attention if symptoms occur.

First-aid Measures After Eye Contact: If exposed to lithium hydroxide canister contents: Immediately wash eyes with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

First-aid Measures After Ingestion: If exposed to lithium hydroxide canister contents: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: If exposed to lithium hydroxide canister contents: Harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage.

Symptoms/Injuries After Inhalation: If exposed to lithium hydroxide canister contents: Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. May be corrosive to the respiratory tract.

Symptoms/Injuries After Skin Contact: If exposed to lithium hydroxide canister contents: Causes severe irritation which will progress to chemical burns.

Symptoms/Injuries After Eye Contact: If exposed to lithium hydroxide canister contents: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: If exposed to contents of oxygen cylinder: Not considered a potential route of exposure, but contact with gas escaping the container can cause freeze burns and frostbite. If exposed to lithium hydroxide canister contents: This material is harmful orally and can cause adverse health effects or death in significant amounts. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed to contents of lithium hydroxide canister or oxygen cylinder, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: None Known.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Contains an oxidizing material which may accelerate fire.

Explosion Hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity: Oxidizer: increases the burning rate of combustible materials. May react exothermically with water releasing heat.

Adding an acid to a base or base to an acid may cause a violent reaction.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Use caution when fighting fire(s) as containers may rupture.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Lithium compounds. Acrid smoke and irritating fumes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Keep away from combustible material. If there is a release from the lithium hydroxide canister: do not breathe dust, do not get in eyes, on skin, or on clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Stop leak if safe to do so. Evacuate unnecessary personnel, isolate, and ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Cautiously neutralize spilled solid. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Regarding oxygen cylinder contents: may cause or intensify fire; oxidizer. Do not pressurize, cut, or weld containers.

Precautions for Safe Handling: No smoking. If there is a release from lithium hydroxide canister: Do not get in eyes, on skin, or on clothing. Do not breathe dust.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: The M-20.2 is designed to be body-worn, or stored IAW with the manufactures conditions of use.

Storage Conditions: Store the M-20.2 IAW the manufactures conditions of use.

Incompatible Materials: No incompatible materials are used in the device.

7.3. Specific End Use(s) Emergency Escape Breathing Device (EEBD).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

Lithium hydroxide (1310-65-2)		
USA AIHA	WEEL Ceiling (mg/m ³)	1 mg/m ³

8.2. Exposure Controls

Appropriate Engineering Controls

: Good general ventilation is sufficient to control worker exposure to airborne lithium hydroxide dust in the event of a spill.

Personal Protective Equipment

: The following PPE may be necessary when cleaning up a canister spill: nitrile/pvc gloves, protective goggles.



Respiratory Protection

: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information

: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: No data available
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available

Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available
Explosive Properties	: Contains gas under pressure.
Oxidizing Properties	: May intensify fire; oxidizer.
9.2. Other Information	
Gas Group	: Compressed gas

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** In regards to oxygen cylinder contents: oxidizer: increases the burning rate of combustible materials. In regards to lithium hydroxide canister contents: May react exothermically with water releasing heat.
- 10.2. Chemical Stability:** Stable.
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Mixing Lithium Hydroxide with incompatible chemicals. To avoid thermal decomposition, do not over heat.
- 10.5. Incompatible Materials:** Strong acids, strong oxidizers. Related to lithium hydroxide: zinc, lead, aluminum.
- 10.6. Hazardous Decomposition Products:** Under normal conditions of use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

*This product is an emergency escape breathing device. It contains a canister of lithium hydroxide and a cylinder of oxygen. Under normal conditions of use and handling this product does not present a hazard unless the cylinder is punctured/ruptured or the canister leaks. The hazards listed below are related to these chemicals if they are released under severe destructive abuse, specifically if there is a spill of the materials, or the cylinder is punctured.

Acute Toxicity: The following apply to the contents of the lithium hydroxide canister: Oral: Harmful if swallowed.

Inhalation:dust,mist: Harmful if inhaled.

ATE (Oral)	420.00 mg/kg body weight
ATE (Dust/Mist)	1.92 mg/l/4h
Lithium hydroxide (1310-65-2)	
LD50 Oral Rat	210 mg/kg
LC50 Inhalation Rat	960 mg/m ³ (Exposure time: 4 h)

Skin Corrosion/Irritation: The following apply to the contents of the Lithium hydroxide canister: Causes severe skin burns and eye damage.

Serious Eye Damage/Irritation: The following apply to the contents of the Lithium hydroxide canister: Causes serious eye damage.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: If exposed to lithium hydroxide canister contents: Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. May be corrosive to the respiratory tract.

Symptoms/Injuries After Skin Contact: If exposed to contents of oxygen cylinder: Contact with gas escaping the container can cause frostbite and freeze burns. If exposed to lithium hydroxide canister contents: Causes severe irritation which will progress to chemical burns.

Symptoms/Injuries After Eye Contact: Contact with gas escaping the container can cause frostbite, freeze burns, and permanent eye damage. If exposed to lithium hydroxide canister contents: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Not considered a potential route of exposure, but contact with gas escaping the container can cause freeze burns and frostbite. If exposed to lithium hydroxide canister contents: This material is harmful orally and can cause adverse health effects or death in significant amounts. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Not classified.

12.2. Persistence and Degradability

Persistence and Degradability	Not established.
--------------------------------------	------------------

12.3. Bioaccumulative Potential

Bioaccumulative Potential	Not established.
----------------------------------	------------------

12.4. Mobility in Soil No additional information available

12.5. Other Adverse Effects

Other Information : If lithium hydroxide canister contents are released: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions. Empty gas cylinders should be returned to the vendor for recycling or refilling. Do not puncture or incinerate container.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : LIFE-SAVING APPLIANCES, NOT SELF INFLATING
Hazard Class : 9
Identification Number : UN3072
ERG Number : 171

14.2. In Accordance with IMDG

Proper Shipping Name : LIFE-SAVING APPLIANCES, NOT SELF-INFLATING
Hazard Class : 9
Identification Number : UN3072
Label Codes : 9
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-V



14.3. In Accordance with IATA

Proper Shipping Name : LIFE-SAVING APPLIANCES, NOT SELF-INFLATING
Identification Number : UN3072
Hazard Class : 9
Label Codes : 9
ERG Code (IATA) : 9L



SECTION 15: REGULATORY INFORMATION**15.1. US Federal Regulations**

*This product is an emergency escape breathing device. It contains a canister of lithium hydroxide and a cylinder of oxygen. Under normal conditions of use and handling this product does not present a hazard unless the cylinder is punctured/ruptured or the canister leaks. The hazards listed below are related to these chemicals if they are released under severe destructive abuse, specifically if there is a spill of the materials, or the cylinder is punctured.

M-20.2 EEBD	
SARA Section 311/312 Hazard Classes	Fire hazard Sudden release of pressure hazard Immediate (acute) health hazard
Lithium hydroxide (1310-65-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Oxygen (7782-44-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. US State Regulations

Lithium hydroxide (1310-65-2)	
U.S. - Minnesota - Hazardous Substance List U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term	
Oxygen (7782-44-7)	
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Pennsylvania - RTK (Right to Know) List	

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision	: 03/22/2021
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)