

Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • **Emergency Passenger Oxygen System; Crewmember Protective Breathing Equipment; Victim Rescue Unit; and Self-Contained Unit**

Synonyms • EPOS; PBE; SCU; VRU

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Respiratory protection from toxic gases, smoke from fires, and hazardous fumes

1.3 Details of the supplier of the safety data sheet

Manufacturer • Essex Industries
8007 Chivvis Drive
St. Louis, MO 63123
United States
www.essexind.com

Telephone (General) • 314-832-4500

1.4 Emergency telephone number

Manufacturer • 800-296-7587

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

CLP

- This product is an article. The information represented throughout the SDS is based on the lithium hydroxide contained in the CO₂ Scrubber panel. Exposure to the lithium hydroxide would not be expected to occur unless the scrubber panel was removed and cut open or torn.
Acute Toxicity Oral 3 - H301
Skin Corrosion 1B - H314
Serious Eye Damage 1 - H318
Acute Toxicity Inhalation 3 - H331

2.2 Label Elements

CLP

DANGER



Hazard statements • H301 - Toxic if swallowed.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage
H331 - Toxic if inhaled

Precautionary statements

- Prevention** • P260 - Do not breathe dust.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311 - Call a POISON CENTER/doctor.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P310 - Immediately call a POISON CENTER/doctor.
P363 - Wash contaminated clothing before reuse.
P321 - Specific treatment, see supplemental first aid information.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P330 - Rinse mouth.
P331 - Do NOT induce vomiting.
- Storage/Disposal** • P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
-

UN GHS Revision 3

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Third Revised Edition

2.1 Classification of the substance or mixture

- UN GHS**
- This product is an article. The information represented throughout the SDS is based on the lithium hydroxide contained in the CO2 Scrubber panel. Exposure to the lithium hydroxide would not be expected to occur unless the scrubber panel was removed and cut open or torn.
Acute Toxicity Oral 3
Skin Corrosion 1B
Serious Eye Damage 1
Acute Toxicity Inhalation 3
Hazardous to the aquatic environment Acute 3

2.2 Label elements

UN GHS

DANGER



- Hazard statements** • Toxic if swallowed
Causes severe skin burns and eye damage.
Causes serious eye damage
Toxic if inhaled
Harmful to aquatic life

Precautionary statements

- Prevention** • Do not breathe dust.
Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

- Response** • IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Immediately call a POISON CENTER or doctor/physician.
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Rinse mouth.
Do NOT induce vomiting.

- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

UN GHS

- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- This product is an article. The information represented throughout the SDS is based on the lithium hydroxide contained in the CO2 Scrubber panel. Exposure to the lithium hydroxide would not be expected to occur unless the scrubber panel was removed and cut open or torn.
Acute Toxicity Oral 3
Skin Corrosion 1B
Serious Eye Damage 1
Acute Toxicity Inhalation 3

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • Toxic if swallowed
Causes severe skin burns and eye damage.
Causes serious eye damage
Toxic if inhaled

Precautionary statements

- Prevention** • Do not breathe dust.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

- Response** • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

Immediately call a POISON CENTER/doctor.

Specific treatment, see supplemental first aid information.

Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Rinse mouth.

- Storage/Disposal**
- Store in a well-ventilated place. Keep container tightly closed. Store locked up.
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015

- This product is an article. The information represented throughout the SDS is based on the lithium hydroxide contained in the CO₂ Scrubber panel. Exposure to the lithium hydroxide would not be expected to occur unless the scrubber panel was removed and cut open or torn.

Acute Toxicity Oral 3

Skin Corrosion 1B

Serious Eye Damage 1

Acute Toxicity Inhalation 3

2.2 Label elements

WHMIS 2015

DANGER



- Hazard statements**
- Toxic if swallowed
 - Causes severe skin burns and eye damage.
 - Causes serious eye damage
 - Toxic if inhaled

Precautionary statements

- Prevention**
- Do not breathe dust.
 - Wash thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Use only outdoors or in a well-ventilated area.
 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response**
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse. Specific treatment, see supplemental first aid information.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.

- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

WHMIS 2015

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Lithium hydroxide	CAS:1310-65-2 EINECS:215-183-4	17% TO 22%	NDA	EU CLP: Acute Tox. 3, H301; Acute Tox. 3, H331; Skin Corr. 1B, H314; Eye Dam. 1, H318 UN GHS Revision 3: Acute Tox. 3 (orl); Acute Tox. 3 (inhl); Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 3 OSHA HCS 2012: Acute Tox. 3 (orl); Acute Tox. 3 (inhl); Skin Corr. 1B; Eye Dam. 1 WHMIS 2015: Acute Tox. 3 (orl); Acute Tox. 3 (inhl); Skin Corr. 1B; Eye Dam. 1	NDA
Oxygen	CAS:7782-44-7 EC Number:231-956-9 EU Index:008-001-00-8	3.3% TO 3.5%	NDA	EU CLP: Annex VI, Table 3.1: Ox. Gas 1, H270; Press. Gas UN GHS Revision 3: Press. Gas - Comp.; Ox. Gas 1; Repr. 2; STOT SE 3: Narc.; STOT SE 3: Resp. Irrit. (Inhl) OSHA HCS 2012: Press. Gas - Comp.; Ox. Gas 1; Repr. 2 (Inhl); STOT SE 3: Narc.; STOT SE 3: Resp. Irrit. (Inhl) WHMIS 2015: Press. Gas - Comp.; Ox. Gas 1; Repr. 2 (Inhl); STOT SE 3: Narc.; STOT SE 3: Resp. Irrit. (Inhl)	NDA

The balance of the non-hazardous material in a PBE is 79.7% and for the VRU, EPOS and SCU is 74.5%

See Section 16 for full text of H-statements.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give artificial respiration if victim is not breathing. Get medical attention immediately.

Skin

- For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Get medical attention immediately.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. Get medical attention immediately.

Ingestion

- If swallowed, rinse mouth with water (only if the person is conscious) Do NOT induce

vomiting. Do not use mouth-to-mouth method if victim ingested the substance. Obtain medical attention immediately if ingested.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • In case of fire use media as appropriate for surrounding fire.

Unsuitable Extinguishing Media • No data available

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Lithium Hydroxide is not flammable, however, it is corrosive and presents a severe contact hazard to firefighters.

Hazardous Combustion Products • When involved in a fire, Lithium Hydroxide may decompose and produce irritating fumes and toxic gases (lithium compounds)

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
SMALL FIRES: Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. The minimum Personal Protective Equipment recommended for response to non-incident 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. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Do not get water inside container.

6.2 Environmental precautions

- Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Avoid generating dust.
Sweep or vacuum spilled Lithium Hydroxide carefully.
Decontaminate the area thoroughly. If necessary, neutralize area with citric acid. Test area with litmus paper to insure neutralization is complete.
Place all spill residue in a suitable container and seal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Handle and open container with care. Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Protect from sunlight. Store in a cool, dry place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No applicable exposure limits available for product or components.

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Wear appropriate gloves. Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Lithium hydroxide - Crystalline white powder with no odor.
Color	White	Odor	Odorless
Odor Threshold	Data lacking		
General Properties			
Boiling Point	924 °C(1695.2 °F)	Melting Point/Freezing Point	462 °C(863.6 °F)
Decomposition Temperature	Data lacking	pH	14
Specific Gravity/Relative Density	= 1.5 Water=1	Water Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		

Volatility

Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		

Flammability

Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Excess heat. Incompatible materials.

10.5 Incompatible materials

- Strong acids. LiOH is corrosive to aluminum, lead, and zinc.

10.6 Hazardous decomposition products

- Thermal decomposition of the components of Lithium Hydroxide include lithium compounds and caustic vapors.

Section 11 - Toxicological Information**11.1 Information on toxicological effects**

		Components
Lithium hydroxide (17% TO 22%)	1310-65-2	Acute Toxicity: Ingestion/Oral-Rat LD50 • 210 mg/kg; Behavioral:Somnolence (general depressed activity); Behavioral:Convulsions or effect on seizure threshold; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain; Inhalation-Rat LC50 • 960 mg/m ³ 4 Hour(s); Lungs, Thorax, or Respiration:Other changes; Multi-dose Toxicity: Ingestion/Oral-Mammal TDLo • 9100 µg/kg 26 Week(s)-Intermittent; Liver:Liver function tests impaired; Blood: Pigmented or nucleated red blood cells; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain
Oxygen (3.3% TO 3.5%)	7782-44-7	Acute Toxicity: Inhalation-Human TCLo • 30 pph; Vascular:Regional or general arteriolar constriction; Inhalation-Human TCLo • 90 pph 24 Hour(s); Peripheral Nerve and Sensation:Paresthesia; Multi-dose Toxicity: Inhalation-Mouse TCLo • 95 pph 2 Day(s)-Continuous; Lungs, Thorax, or Respiration:Structural or functional change in trachea or bronchi; Biochemical:Metabolism (intermediary):Other proteins; Inhalation-Mouse TCLo • 95 pph 3 Day(s)-Continuous; Lungs, Thorax, or Respiration:Structural or functional change in trachea or bronchi; Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:Other enzymes; Reproductive: Inhalation-Rat TCLo • 10 pph 12 Hour(s)(22D preg); Reproductive Effects:Specific Developmental Abnormalities:Respiratory system; Inhalation-Woman TCLo • 12 pph 10 Minute(s)(26-39W preg); Reproductive Effects:Specific Developmental Abnormalities:Cardiovascular (circulatory) system

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Inhalation 3; Acute Toxicity - Oral 3 UN GHS 3 • Acute Toxicity - Inhalation 3; Acute Toxicity - Oral 3 OSHA HCS 2012 • Acute Toxicity - Inhalation 3; Acute Toxicity - Oral 3 WHMIS 2015 • Acute Toxicity - Inhalation 3; Acute Toxicity - Oral 3
Skin corrosion/Irritation	EU/CLP • Skin Corrosion 1B UN GHS 3 • Skin Corrosion 1B OSHA HCS 2012 • Skin Corrosion 1B WHMIS 2015 • Skin Corrosion 1B
Serious eye damage/Irritation	EU/CLP • Serious Eye Damage 1 UN GHS 3 • Serious Eye Damage 1 OSHA HCS 2012 • Serious Eye Damage 1 WHMIS 2015 • Serious Eye Damage 1
Skin sensitization	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Carcinogenicity	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
STOT-SE	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
STOT-RE	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)

- Toxic if inhaled. May cause corrosive burns - irreversible damage.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

Skin

Acute (Immediate)

- Causes severe skin burns and eye damage.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Eye

Acute (Immediate)

- Causes serious eye damage.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

Ingestion

Acute (Immediate)

- Toxic if swallowed. May cause irreversible damage to mucous membranes.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

	CAS	
Emergency Passenger Oxygen System; Crewmember Protective Breathing Equipment; Victim Rescue Unit; and Self-Contained Unit	NDA	Aquatic Toxicity-Crustacea: 48 Hour(s) LC50 <i>Daphnia magna</i> 19.1 mg/L Comments: Data for Lithium Hydroxide

- Harmful to aquatic life.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or

international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN3072	LIFE-SAVING APPLIANCES NOT SELF-INFLATING	9	Not relevant	NDA
TDG	UN3072	LIFE-SAVING APPLIANCES NOT SELF-INFLATING	9	Not relevant	NDA
IMO/IMDG	UN3072	LIFE-SAVING APPLIANCES NOT SELF-INFLATING	9	Not relevant	NDA
IATA/ICAO	UN3072	LIFE-SAVING APPLIANCES NOT SELF-INFLATING	9	Not relevant	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

14.8 Other information

- Net Hazardous Material Quantities per unit: For EPOS, VRU and SCU: Lithium Hydroxide - Anhydrous .120 kg, Compressed Oxygen .024 kg for a Total Net Quantity of .144 kg; For PBE: Lithium Hydroxide - Anhydrous .200 kg, Compressed Oxygen .048 kg for a Total Net Quantity of .248 kg.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Lithium hydroxide	1310-65-2	Yes	No	Yes	No	Yes
Oxygen	7782-44-7	Yes	No	Yes	No	Yes

Canada**Labor****Canada - WHMIS 1988 - Classifications of Substances**

- | | | |
|---------------------|-----------|------|
| • Oxygen | 7782-44-7 | A, C |
| • Lithium hydroxide | 1310-65-2 | E |

Canada - WHMIS 1988 - Ingredient Disclosure List

- | | | |
|---------------------|-----------|------------|
| • Oxygen | 7782-44-7 | Not Listed |
| • Lithium hydroxide | 1310-65-2 | 1 % |

Environment**Canada - CEPA - Priority Substances List**

- | | | |
|---------------------|-----------|------------|
| • Oxygen | 7782-44-7 | Not Listed |
| • Lithium hydroxide | 1310-65-2 | Not Listed |

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Oxygen	7782-44-7	Not Listed
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• Lithium hydroxide	1310-65-2	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Oxygen	7782-44-7	Not Listed
• Lithium hydroxide	1310-65-2	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H270 - May cause or intensify fire; oxidizer

Revision Date

- 02/March/2018

Preparation Date

- 02/March/2018

Disclaimer/Statement of Liability

- The information herein is given in good faith but no warranty, expressed or implied, is made.

Key to abbreviations

NDA = No Data Available