



Safety Data Sheet

Liquid Oxygen

Section 1: Product and Company Identification

Airweld
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Decatur, IL 62526
(217) 428-4653
Gasandgearlogo.com

Product Code: Liquid Oxygen

Section 2: Hazards Identification



Danger

Hazard Classification:

Gases Under Pressure
Oxidizing Gas (Category 1)

Hazard Statements:

Contains gas under pressure; may explode if heated
May cause or intensify fire; oxidizer

Precautionary Statements

Prevention:

Keep reduction valves/valves and fittings free from oil and grease.
Keep and store away from clothing and combustible materials.

Response:

In case of fire: Stop leak if safe to do so.

Storage:

Protect from sunlight.
Store in well-ventilated place.

Section 3: Composition/Information on Ingredients

CAS #
7782-44-7

Chemical Substance OXYGEN, LIQUID	Chemical Family Inorganic gases	Trade Names LIQUID OXYGEN; LOX; OXYGEN; OXYGEN, PRESSURIZED LIQUID; UN 1073; O2; OXYGEN (CRYOGENIC LIQUID)
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Section 4: First Aid Measures

Skin Contact Immediately flush with plenty of lukewarm water, or wrap affected area in blankets. Get immediate medical attention.	Eye Contact Flush eyes with plenty of water for at least 15 minutes. Get medical attention.	Ingestion Get medical attention.	Inhalation Remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.	Note to Physicians None
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Section 5: Fire Fighting Measures

Suitable Extinguishing Media Non-flammable. Use extinguishing agent appropriate for the material which is burning. Use water in large quantities for fires involving oxygen.	Products of Combustion Oxides of burning material	Protection of Firefighters <table border="0"> <tr> <td> </td> <td>Respiratory protection may be needed for frequent or heavy exposure.</td> </tr> <tr> <td> </td> <td>None</td> </tr> </table>		Respiratory protection may be needed for frequent or heavy exposure.		None
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	None					

Section 6: Accidental Release Measures

Personal Precautions Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.	Environmental Precautions Avoid contact with combustible materials.	Methods for Containment Stop leak if possible without personal risk.
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Methods for Cleanup Stop leak and ventilate	Other Information None
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Section 7: Handling and Storage

Handling Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125F (52C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.	Storage Do not get liquid in eyes, on skin, or clothing. Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Open valve slowly. Close cylinder valve after each use; keep closed even when empty. If valve is hard to open, discontinue use and contact your supplier
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Section 8: Exposure Controls/Personal Protection

Exposure Guidelines OXYGEN, LIQUID: No occupational exposure limits established.

Engineering Controls
Handle only in fully enclosed systems.

Eye Protection Wear splash resistant safety goggles.	Skin Protection Wear appropriate protective, cold insulating clothing.	Respiratory Protection Respiratory protection may be needed for frequent or heavy exposure.
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General Hygiene considerations

- § Avoid breathing vapor or mist
- § Avoid contact with eyes and skin
- § Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

Physical State Cryogenic Liquid	Appearance Clear	Color Blue	Change in Appearance N/A	Physical Form Gas	Odor Odorless	Taste Tasteless
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Flash Point Not flammable	Flammability Not available	Partition Coefficient Not available	Autoignition Temperature Nonflammable	Upper Explosive Limits Nonflammable	Lower Explosive Limits Nonflammable
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Boiling Point -297 F (-183 C)	Freezing Point -360 F (-218 C)	Vapor Pressure 760 mmHg @ -183 C	Vapor Density 1.1 (Air=1)	Specific Gravity 1.1407 @ -183 C	Water Solubility 3.2% @ 25 C	pH Not applicable	Odor Threshold Not available	Evaporation Rate Not applicable	Viscosity 0.156 cP @ -173 C
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Molecular Weight 31.9988	Molecular Formula O2	Density 1.309 g/L @ 25 C	Weight per Gallon Not available	Volatility by Volume Not applicable	Volatility Not applicable	Solvent Solubility Soluble: Alcohol
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Section 10: Stability and Reactivity

Stability Stable at normal temperatures and pressure.	Conditions to Avoid Stable at normal temperatures and pressure.	Incompatible Materials Combustible materials, halo carbons, metals, bases, reducing agents, amines, metal salts, oxidizing materials, alkaline earth and alkali metals
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Hazardous Decomposition Products Miscellaneous decomposition products	Possibility of Hazardous Reactions Will not polymerize.
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Section 11: Toxicology Information

Acute Effects

Oral LD50 Not established	Dermal LD50 Not established	Inhalation Irritation, changes in body temperature, nausea, difficulty breathing, irregular heartbeat, dizziness, disorientation, hallucinations, mood swings, pain in extremities, tremors, lung congestion, convulsions
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Eye Irritation Frostbite, blurred vision	Skin Irritation Blisters, frostbite	Sensitization No significant target effects reported.
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Chronic Effects

Carcinogenicity Not known.	Mutagenicity Available.	Reproductive Effects Available.	Developmental Effects No data
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Fate and Transport

Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
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Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Low bioaccumulation	Not available
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Section 13: Disposal Considerations

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Oxygen, refrigerated liquid	UN1073	2.2	Not available	2.2; 5.1	Forbidden	Forbidden	N/A

Canadian Transportation of Dangerous Goods

Shipping Name	UN Number	Class	Packing Group / Risk Group
Oxygen, refrigerated liquid	UN1073	2.2; 5.1	Not applicable

Section 15: Regulatory Information

U.S. Regulations

CERCLA Sections	SARA 355.30	SARA 355.40
Not regulated.	Not regulated.	Not regulated.

SARA 370.21

Acute	Chronic	Fire	Reactive	Sudden Release
No	No	Yes	No	Yes

SARA 372.65

Not regulated.

OSHA Process Safety

Not regulated.

State Regulations

CA Proposition 65
Not regulated.

Canadian Regulations

WHMIS Classification
Not determined.

National Inventory Status

US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDL)
Listed on inventory.	Not listed.	Not determined.

Section 16: Other Information

NFPA Rating

HEALTH=3 FIRE=0 REACTIVITY=0 SPECIAL=OX

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard