



Date Prepared: July 1, 1992

Date Reviewed: March 22, 2006

MATERIAL SAFETY DATA SHEET

Product Name: Oxygen, compressed

March 22, 2006

1. Chemical Product and Company Identification

Linweld, Inc
9911 Deer Park Road
Waverly, NE 68462

Telephone Number
Information: (402) 786-3330
Emergency: (402) 786-5277

Product Name: Oxygen, compressed
Chemical Name: Oxygen
Common Names: Oxygen; Oxygen, compressed

2. Hazard Ingredients and Identity Information

COMPONENT	% VOLUME	OSHA-PEL	ACGIH-TLV	CAS NUMBER
Oxygen	> 99.5	N/A	N/A	007782-44-7

3. Physical and Chemical Characteristics

Boiling Point:	-297.3° F	Specific Gravity:	1.105	pH:	N/A
Melting Point:	-361.8° F	Evaporation Rate:	N/A	Physical State:	Gas
Vapor Pressure:	N/A	Solubility (H2O):	Slightly		

Appearance and Odor:
Colorless, odorless, pale blue liquid

How to Detect This Substance:
N/A

Other Physical and Chemical Data:
Liquid density at boiling point, 71.23 lb/ft³ (114 kg/m³)
Gas density at 70° F 1 atm, 0.08279 lb/ft³ (1.326 kg/m³)

4. Fire and Explosion Hazard Data

Flammability Classification:	Nonflammable, oxidizer	Flash Point (F):	N/A	LEL (%):	N/A
Ignition Temperature:	N/A	Method:	N/A	UEL (%):	N/A

Extinguishing Media:
Copious quantities of water for fires with oxygen as the oxidizer.

Fire Fighting Procedures:
If possible, stop the flow of oxygen, which is supporting the fire.

Fire & Explosion Hazard:
Vigorously accelerates combustion. If cylinders are involved in a fire, safely relocate or keep cool with water spray.

5. Reactivity Data

Stability:	Stable	Hazardous Polymerization:	Will not occur
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Incompatibility:
All flammable materials

Conditions to Avoid:
N/A

Hazardous Decomposition or Byproducts:
None

5. Reactivity Data (Continued)

Other Reactivity Data:

Oxygen vigorously accelerates combustion. Contact with all flammable materials should be avoided. Some materials that are not flammable in air will burn in pure oxygen or oxygen enriched atmospheres.

6. Health Hazard Data

Route(s) of Entry:	Eye Contact No	Skin Contact No	Skin Absorption No
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Inhalation Yes	Ingestion No
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Health Hazards:

Acute Breathing high concentrations (greater than 75%) causes symptoms of hyperoxia which includes cramps, nausea, dizziness, hypothermia, ambyopia, respiratory difficulties, bradycardia, fainting spells, and convulsions capable of leading to death.

Chronic N/A

Carcinogenicity:	NTP No	IARC Monographs No	OSHA No
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Signs and Symptoms of Exposure and Emergency First Aid Procedures:

Eye Contact N/A

Skin Contact N/A

Inhalation Breathing high concentrations (greater than 75%) causes symptoms of hyperoxia which includes cramps, nausea, dizziness, hypothermia, ambyopia, respiratory difficulties, bradycardia, fainting spells, and convulsions capable of leading to death.

Conscious victims should be assisted to an uncontaminated area and allowed to inhale fresh air. Unconscious victims should be moved to an uncontaminated area and given assisted respiration. Seek medical attention, informing physician that patient is experiencing hyperoxia.

Ingestion N/A

Medical Conditions Aggravated by Exposure:

Persons of ill health that may be aggravated by exposure to oxygen should not be allowed to work with or handle this product.

7. Precautions for Safe Handling and Use

Actions if Released or Spilled:

Evacuate all personnel from affected area. Use appropriate personal protective equipment.

Waste Disposal Method: N/A

Handling and Storage Precautions:

Use only in well-ventilated areas. Valve protection caps must remain in place unless cylinder is secured with valve outlet piped to point of use. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure-reducing regulator when connecting cylinder to lower pressure piping or systems. Do not heat cylinder. Use a check valve or trap in the discharge line to prevent hazardous backflow into the cylinder.

Protect cylinders from physical damage. Store in cool, dry, well-ventilated area away from heavy traffic areas and emergency exits. Do not allow temperature of cylinder storage area to exceed 125° F. Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated.

7. Precautions for Safe Handling and Use (Continued)**Other Precautions:**

Oxygen cylinders should be used in well-ventilated areas and in accordance with the manufacturer and suppliers instructions. Cylinders must be kept in an upright position. Specialized hand trucks are necessary for their movement. Full and empty cylinders should be stored away from other flammable products.

Oxygen should not be used as a substitute for compressed air pneumatic equipment. Equipment to contain oxygen must be cleaned for oxygen service. See CGA Pamphlet G-4.1

Post "NO SMOKING OR OPEN FLAMES" signs in the storage and use areas. There should be no sources of ignition in the storage and use area.

Compressed gas cylinders should only be refilled by qualified personnel. Shipment of compressed gas cylinders that have been filled without the consent of the cylinder owner is a violation of federal law (49 CFR).

Never transport a cryogenic liquid vessel in an enclosed space such as a vehicle truck or van.

Smoking and open flames should not be allowed near liquid oxygen vessels.

For additional recommendations, see CGA Pamphlets G-4, P-14, P-1.

Transportation Information:

Shipping Name	Oxygen, compressed
Hazard Class	2.2
ID Number	UN1072
Shipping Label - 1	Nonflammable Gas
- 2	Oxidizer

NOTE: The OXIDIZER label modified to display word OXYGEN instead of OXIDIZER, and the class number 2 instead of 5.1 may be used in place of the NONFLAMMABLE GAS and OXIDIZER labels.

NFPA Rating:

Health: 0 Flammability: 0 Reactivity: 0

8. Control Measures**Eye Protection:**

Safety goggles or glasses as appropriate.

Protective Gloves:

Loose fitting, insulated gloves.

Respiratory Protection:

N/A

Ventilation:

Local exhaust to prevent oxygen accumulation above 25%.

Other Protective Clothing or Equipment:

Safety shoes as appropriate.

9. Regulatory Information**SARA TITLE III NOTIFICATIONS AND INFORMATION****SARA Title III – Section 313 Supplier Notification:**

This product does not contain toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and 40 CFR 372.

SARA Title III – Hazard Classes:

Acute Health Hazard
Fire Hazard
Sudden Release of Pressure Hazard

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