



Material Safety Data Sheet

Printing date 10/21/2008

Version 5

Reviewed on 10/21/2008

1 Identification of substance

· **Product details**

· **Trade name:** Oxygen

· **Article number:** 124-01-0006

· **Creation date:** 06/13/2008

· **Manufacturer/Supplier:**

AS PACKAGED AND DISTRIBUTED BY

INDIANA OXYGEN COMPANY
6099 WEST CORPORATE WAY
INDIANAPOLIS, INDIANA 46278
PHONE 1-317-290-0003

Emergency Contact: Infotrak
1-800-535-5053

2 Composition/Data on components

· **Chemical characterization:**

· **CAS No. Description**

7782-44-7 Oxygen

· **Identification number(s)**

· **EINECS Number:** 231-956-9

008-001-00-8

3 Hazards identification

· **Hazard description:**

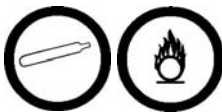


Oxidizing

· **WHMIS-symbols:**

A - Compressed gas

C - Oxidizing materials



· **HMIS-ratings (scale 0 - 4)**

HEALTH	0
FIRE	0
REACTIVITY	3

Health = 0

Fire = 0

Reactivity = 3

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· NFPA ratings (scale 0 - 4)

Health = 0
Fire = 0
Reactivity = 3

· Information pertaining to particular dangers for man and environment:

Contact with combustible material may cause fire.

· Classification system:

The classification is in line with internationally approved calculation standards. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

· GHS label elements**Danger**

2.4/1 - May cause or intensify fire; oxidizer.

· Prevention:

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

· Response:

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

· Storage:

Store in a well-ventilated place.

4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for at least 15 minutes under running water. Then consult a doctor.
- **After swallowing:** Not applicable

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Eliminate ignition sources
Stop leak - ONLY if possible to do so without risk.
- **Measures for environmental protection:** Prevent seepage into sewage system, workpits and/or cellars.

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- **Measures for cleaning/collecting:** Ensure adequate ventilation.

* 7 Handling and storage

- **Handling:**
- **Information for safe handling:**
 - Handle with care. Avoid jolting, friction, and impact.
 - Use only in well ventilated areas.
 - Store cylinders upright with valve protection cap in place and firmly secured to prevent falling or being knocked over.
- **Information about protection against explosions and fires:**
 - Keep ignition sources away - Do not smoke.
 - Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Do not expose cylinder to temperatures higher than 50°C (122 °F)
- **Information about storage in one common storage facility:**
 - Store separately from cylinders containing flammables by a minimum distance of 20' or by a barrier of non-combustible material at least 5' high having a fire resistant rating of at least 30minutes.
 - Sources of ignition should be removed from storage area.
- **Further information about storage conditions:**
 - Store cylinder in a well ventilated area.
 - Store in accordance with local fire code and/or building code or any pertaining regulations.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:**
 - Adequate local ventilation.
 - Safety showers and eyewash stations should be nearby.
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Wash hands before breaks and at the end of work.
 - Protective clothing should be kept free of oil and grease.
 - PPE should be inspected and maintained regularly to retain it's effectiveness.
- **Breathing equipment:**
 - Use atmosphere-supplying respirators (e.g. supplied-air: demand, pressure-demand, or continuous-flow or self-contained breathing apparatus: demand or pressure-demand or combination supplied-air with auxiliary self-contained air supply atmosphere-supplying respirator) in case of insufficient ventilation.
- **Protection of hands:**



Protective gloves.

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· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Eye protection: Safety glasses

9 Physical and chemical properties

· General Information

Form:	Gaseous.
Color:	Colorless
Odor:	Odorless

· Change in condition**Melting point/Melting range:** -219°C**Boiling point/Boiling range:** -182°C**· Flash point:** Not applicable.**· Flammability (solid, gaseous):** Contact with combustible material may cause fire.**· Danger of explosion:** Explosive when mixed with combustible material.**· Solubility in / Miscibility with****Water at 20°C:** 39 g/l

10 Stability and reactivity

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.**· Dangerous reactions**

May react violently with reducing agents.

Violently oxidises organic substances.

May react violently with combustible substances.

· Dangerous products of decomposition: No dangerous decomposition products known.

11 Toxicological information

· Acute toxicity:**· LD/LC50 values that are relevant for classification:** LC50 > 5000ppm**· Primary irritant effect:****· on the skin:** No irritating effect.**· on the eye:** No irritating effect.**· Sensitization:** No sensitizing effects known.

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12 Ecological information

- **General notes:** Generally not hazardous for water.

13 Disposal considerations

- **Product:**
- **Recommendation:** Unused product should be returned to vendor.
- **Uncleaned packagings:**
- **Recommendation:** Cylinder and unused product should be returned to vendor. Disposable cylinder must be disposed of in accordance with local regulations.
- **Recommended cleansing agent:** None applicable.

14 Transport information

- **TDG and DOT regulations:**



- **Hazard class:** 2.2
- **Identification number:** UN1072
- **Packing group:** -
- **Proper shipping name (technical name):** OXYGEN, COMPRESSED
- **Label:** 2.2+5.1
- **Packaging group:** -

- **Maritime transport IMDG:**



- **IMDG Class:** 2.2
- **UN Number:** 1072
- **Label:** 2.2+5.1
- **Packaging group:** -
- **EMS Number:** F-C,S-W
- **Marine pollutant:** No
- **Proper shipping name:** OXYGEN, COMPRESSED

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· Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 2.2
- UN/ID Number: 1072
- Label: 2.2+5.1
- Packaging group: -
- Proper shipping name: OXYGEN, COMPRESSED

· UN "Model Regulation": UN1072, OXYGEN, COMPRESSED, 2.2 (5.1)

15 Regulations

· Sara

· Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenicity categories

· EPA (Environmental Protection Agency)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

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· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

· Canadian substance listings:**· Canadian Domestic Substances List (DSL)**

Substance is listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

Substance is not listed.

· Canadian Ingredient Disclosure list (limit 1%)

Substance is not listed.

· Product related hazard informations:

The product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

· Hazard symbols:

Oxidizing

· Risk phrases:

Contact with combustible material may cause fire.

· Safety phrases:

Keep out of the reach of children.

Keep away from combustible material.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Please refer to the section 3 for NFPA and HMIS Hazard Codes.

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· Department issuing MSDS:

Customer Service Centre: 1-866-385-5349

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· Abbreviations and Acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstract Service (Division of the American Chemical Society)

DOT: US Department of Transportation

EINECS: European Inventory of Existing Commercial Chemical Substances

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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HMIS: Hazardous Material Identification System
IATA: International Air Transportation Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transportation Association"
ICAO: International Civil Aviation Association
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization (ICAO)"
IMDG: International Marine Code for Dangerous Goods
WHIMS: Workplace Hazardous Material Information System
LC50: Lethal Concentration, 50 Percent
LD50: Lethal Dose, 50 Percent
N/A: Not Applicable

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