



SAFETY DATA SHEET

(in accordance with directives 2007/58 CE and Decree of the Ministry of Health 7th September 2002)

Data Sheet No. 4803 – Rev.3 – 01/09

OXYGEN

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1 IDENTITY OF THE COMPOUND AND COMPANY

Compound: Oxygen
Container: Non-refillable cylinders with a capacity of < 1 L
Use of the compound: In the welding and cutting field. Oxidant in industrial processes and in the treatment of water
Chemical formula: O₂
Company: Oxyturbo S.r.l. – Via Serio – 25015 Desenzano del Garda (BS)
Emergency phone number: +39 0309911855

2 COMPOSITION/INFORMATION ON INGREDIENTS

Dangerous substances (article 3 - paragraphs 3, 4 Legislative Decree No. 65 - 14/03/2003)

Chemical name	INDEX No.:	CAS No.	EEC No.	%	Classification
Oxygen	/	07782-447	231-956-9	(Comburent)	O;R8

Does not contain other products and/or impurities that influence the classification of the product

3 HAZARDS IDENTIFICATION

Identification of the dangers:

Compressed gas
Oxidant
Active comburent in combustion
Can react violently with combustible materials
Substance classified as dangerous by regulations in force

4 FIRST AID

Inhalation:

The continuous inhalation in concentrations of over 75% can cause nausea, dizziness, difficulty in breathing and convulsions
Move the casualty to a non-contaminated zone.
If necessary, call an ambulance.
Request medical assistance

Contact with the skin and eyes:

Exposure improbable

Swallowing:

Exposure improbable

5. FIRE-FIGHTING MEASURES**Specific dangers:**

Active comburent in combustion
Exposure to flames can break the container or make it explode
Non-inflammable

Dangerous products of combustion:

None

Appropriate fire-fighting equipment:

All known extinguishing means can be used

Specific methods:

Stop the product leak if possible
Keep your distance from the container and cool it with water from a protected position

Special means of protection:

Use breathing apparatus in enclosed spaces

Fire-fighting equipment that cannot be used:

None

6 MEASURES IN THE CASE OF ACCIDENTAL DISPERSION**Precautions for the personnel:**

Evacuate the area
Guarantee suitable ventilation
Eliminate ignition sources

Environmental precautions:

Avoid accumulation of the product in drains, cellars, excavations and zones where build-up can be dangerous
Try to stop the leak

Treatment methods:

Ventilate the zone

7 HANDLING AND STORAGE**Handling:**

Don't use oil and grease
Open the valve slowly to avoid sudden pressure variations
Keep away from ignition sources (including electrostatic charges)
Avoid water flowing back into the container
Do not let the gas flow back into the container
Contact the supplier of the gas if in doubt
Only use specific equipment, suitable for the product, pressure and temperature it is used at
Refer to the supplier's instructions on handling the container
No smoking while handling the product

Storage:

Do not store with flammable gases or materials
Store the container at a temperature below 50°C in a well-ventilated zone

Special uses: Not established - to be verified in each case with the supplier

8 PERSONAL PROTECTION/CONTROL OF EXPOSURE**Exposure limits TLV-TWA:**

Not established

Controlling professional exposure:

Avoid atmospheres rich in oxygen (>23%)

Guarantee suitable ventilation

No smoking while handling the product

Make sure the PPE is compatible with the substance to use

Respiratory protection:

None; move rapidly away in the case of accidental leakage of the product

Hand protection:

Use suitable gloves for the job

Eye protection:

Wear protective goggles when cutting or welding

Skin protection:

Take suitable precautions for the type of job

Controlling environmental exposure:

Not established

9 PHYSICAL AND CHEMICAL PROPERTIES**Appearance:**

Colourless gas

Smell:

None

Molecular weight: 32**Melting point:** - 219°C**Boiling point:** - 183°C**Vapour pressure at 20°C:**

Not applicable

Critical temperature: - 118°C**Relative density, gas (air=1):** 1.1**Relative density, liquid (water=1):**

Not applicable

Water solubility: 39 mg/l**Partition coefficient:**

Not established

n-octanol/water:

Non-inflammable

Limits of flammability (vol % air):

Oxidant

Self-ignition temperature:

Not applicable

Gas/vapour heavier than air

Other information:



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Can accumulate in enclosed spaces, especially at ground level or under the same

10. STABILITY AND REACTIVITY

Conditions to avoid: Avoid uncontrolled accumulation of the substance in closed places

Materials to avoid:

Can react violently with flammable substances

Can react violently with reducing agents

Violent oxidation of organic materials

Dangerous breakdown products: None

11. TOXICOLOGICAL INFORMATION

Inhalation:

No known toxicological effect

Swallowing:

Exposure improbable

Contact with the skin or the eyes:

Exposure improbable

12 ECOLOGICAL INFORMATION

Ecotoxicity:

No known toxicological effect

Mobility:

Not established

Persistence and degradability:

Not established

Bioaccumulation potential:

Not established

Other adverse effects:

Not established

13 INSTRUCTIONS FOR DISPOSAL

General:

Do not discharge in areas where accumulation can be dangerous



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Discharge into the atmosphere in a well-ventilated zone
Gas cylinders are non-refillable containers.
If a cylinder has to be put out of service, contact the manufacturer/supplier for information on recovery/recycling

14 INFORMATION ON TRANSPORTATION

ADR Transportation by land	Class UN number Class Ordinal Label class	2 1072 2 1 O 2.2 : Non flammable, non toxic gas 5.1 : Oxidizing substances
IMDG/IMO Shipping by sea	Class Label class Additional label Page	2 Gas – quantity limited 2.2 Compressed non-flammable gas MARINE POLLUTANT (Amdt.28/97) IMDG CODE Page 2102

Other information relevant to transportation

Guarantee suitable ventilation

Make sure the driver is informed of the potential risk represented by the load and knows what to do in the case of an accident or emergency.

Before transporting, make sure the load is secure and:

Make sure the valve of the cylinder is closed and doesn't leak

Make sure the blanking plug of the valve (when supplied) is fitted correctly

Make sure the cap (when supplied) is fitted correctly

Make sure the regulations in force are observed

15 INFORMATION ON REGULATIONS

Number in enclosure 1 of Directive 67/54
(Legislative Decree 52/97, Legislative Decree 65/45EEC and subsequent modifications and integrations):
008-001-00-8

EEC Classification: O; R8

Symbols: O: Comburent

Labelling on containers:

ADR symbols are used

Label 2.2: non-inflammable, non-toxic gas

Label 5.1: oxidising substances

R (Risk) phrases:

R8: Contact with combustible material may cause fire

S (Safety) phrases:

S17: keep away from combustible material

16 OTHER INFORMATION

Make sure all national and regional regulations are observed.

Make sure the operator understands the dangers involved in an oxygen-enriched atmosphere

Risk phrases: R8 Contact with combustible material may cause fire.

S (Safety) phrases: (S2) Keep out of the reach of children.

S17 Keep away from combustible material

Data sources used: EIGA databank

This Safety Sheet has been drawn up in conformity with European directives in force and applies in all the Countries that have implemented the Directives in their own national legislation.

Waiver of responsibility: The information in this document is valid at the time it was printed.

Before using this product in any new process or experiment, a detailed study must be carried out on the safety and the compatibility of the same product with the materials.

The company is not responsible for damage caused by any use envisaged or in conditions of use other than those indicated in the Safety Sheet.

Main data source used to draw up the Safety Sheet: Safety Sheet
01/03/95.

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