

Oxygen (Food Fresh)

PRODUCT : OXYGEN (FOOD FRESH) SDS NR : 301-00-0007 BOC VERSION : 1.04 DATE : 27/01/2004 PAGE : 1/1

1 IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY

Product name Oxygen
Chemical formula O₂
Company identification see footer
Emergency phone Nos see footer

2 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation Substance
Components/Impurities Contains no other components or impurities which will influence the classification of the product.
CAS Nr 7782-44-7
EC Nr (from EINECS) 231-956-9
Specifications 99.5% minimum
 Conforms to BS4364 and E948

3 HAZARDS IDENTIFICATION

Hazards identification Compressed gas.
 Oxidant. Strongly supports combustion. May react violently with combustible materials.

4 FIRST AID MEASURES

Inhalation Not hazardous.
Ingestion Ingestion is not considered a potential route of exposure.

5 FIRE FIGHTING MEASURES

Specific hazards Supports combustion.
 Non flammable.
 Exposure to fire may cause containers to rupture/explode.
 Inform Fire Brigade.
Hazardous combustion products None.
Suitable extinguishing media All known extinguishants can be used.
Specific methods If possible, stop flow of product.
 Move container away and cool with water from a protected position.
Special protective equipment for fire fighters None.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions Evacuate area. Ensure adequate air ventilation. Eliminate ignition sources.
 Post warning notices (including no smoking).
Environmental precautions Try to stop release.
 Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
Clean up methods Ventilate area.

7 HANDLING AND STORAGE

Handling and storage

Use no oil or grease.
 Open valve slowly to avoid pressure shock. Segregate from flammable gases and other flammable materials in store. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact BOC if in doubt. Keep away from ignition sources (including static discharges). Refer to BOC container handling instructions. Keep container below 50°C in a well ventilated place.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection Do not smoke while handling product.
 Avoid oxygen rich (>21%) atmospheres.
 Ensure adequate ventilation.
 Clothing impregnated with oxygen should be ventilated by walking in fresh open air for 15 minutes.

9 PHYSICAL AND CHEMICAL PROPERTIES

Molecular weight 32
Melting point -219°C
Boiling point -183°C
Critical temperature -118°C
Relative density, gas 1.1 (air=1)
Relative density, liquid 1.1 (water=1)
Vapour Pressure 20°C Not applicable
Solubility mg/l water 39 mg/l
Appearance/Colour Colourless gas
Odour None
Autoignition temperature Not applicable
Other data Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10 STABILITY AND REACTIVITY

Stability and reactivity May react violently with combustible materials.
 May react violently with reducing agents.
 Violently oxidises organic material.

11 TOXICOLOGICAL INFORMATION

General No toxicological effects from this product.

12 ECOLOGICAL INFORMATION

General No ecological damage caused by this product.

**SAFETY
DATA
SHEET**

13 DISPOSAL CONSIDERATIONS

General To atmosphere in a well ventilated place.
Do not discharge into any place where its accumulation could be dangerous.
Contact BOC if guidance is required.

14 TRANSPORT INFORMATION

Proper Shipping Name Oxygen, compressed
UN Nr 1072
Class/Div 2.2
Subsidiary risk 5.1
ADR/RID Classification Code 10
ADR/RID Hazard Nr 25
Labelling ADR Label 2.2: non flammable non toxic gas
Label 5.1: fire intensifying risk

Other transport information

Avoid transport on vehicles where the load space is not separated from the driver's compartment.

Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

Before transporting product containers ensure that they are firmly secured and:

- cylinder valve is closed and not leaking.
- valve outlet cap nut or plug (where provided) is correctly fitted.
- valve protection device (where provided) is correctly fitted
- adequate ventilation.
- compliance with applicable regulations.

15 REGULATORY INFORMATION

Number in Annex I of Dir 67/548 008-001-00-8.
Designation in Dir 95/2/EC E948
EC Classification O;R8
Labelling of cylinders
- Symbols Label 2.2: non flammable non toxic gas.
Label 5.1: fire intensifying risk.
- Risk phrases R8 Contact with combustible material may cause fire.
- Safety phrases S9 Keep container in well-ventilated place.
S17 Keep away from combustible material.

16 OTHER INFORMATION

Ensure all national/local regulations are observed.
Ensure operators understand the hazard of oxygen enrichment.

Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. Do not use oxygen as a substitute for air, nitrogen or any other gas.

Always leak check cylinders when first collected, delivered or used using an approved leak detection fluid.

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

For further safety information please refer to "Safe Under Pressure" and "Safe handling, storage and transport of industrial gas cylinders", both of which are available from your local BOC outlet.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.

CYLINDER CHARACTERISTICS

Cylinder Size	Maximum Filled Pressure at 15°C (bar)	Approx. Dimensions incl. valve and guard where supplied (mm)	Approx. Full Cylinder weight (kg)	Manifolded Cylinder Pallets (MCPs)	Maximum Filled Pressure at 15°C (bar)	Approx. Dimensions incl. cylinders (mm)	Max. Gross Weight (kg)
W	230	230 x 1460	83.8	WW	230	1290 x 1810 x 840	1500



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