

Oxygen, compressed

UN	1072
HAZCHEM	2 S
CLASS	2.2 SUB 5.1

T E C H S P E C S

CONTAINER	'G'	'E'	MAXI 4	MAXI 8	PACK 16
CONTENT m ³ (101.325 kPa @ 15° C)	7.9	3.9	42.0	84.0	126
GAUGE PRESSURE (kPa @ 15° C)	15,400	15,400	20,000	20,000	15,400
AVERAGE WEIGHT kg (full)	65	35	410	760	1,190
AVERAGE WEIGHT kg (empty)	55	30	360	660	1,020
OUTLET CONNECTION A.S. 2473 Type 10	VERTICAL	VERTICAL	HORIZ.	HORIZ.	HORIZ.

NOTE: The above data is typical of the most common containers.

SPECIFICATION

Oxygen	> 99.5%
Nitrogen & Argon	< 0.5%
Moisture	< 100 ppm at full cylinder pressure

PHYSICAL DATA

Chemical Symbol	O ₂
Boiling Point	-183°C
Relative Density (Air = 1)	1.105
Molecular Weight	32.0
Critical Temperature	-118.8°C
Flashpoint	Non flammable
Density of Gas (@101.3 kPa & 15°C)	1.35 kg/m ³
Solubility in Water (@101.3 kPa & 20°C)	0.032
Specific Volume (@101.3 kPa & 15°C)	0.738 m ³ /kg

PROPERTIES

Oxygen is a colourless, odourless and tasteless gas. Oxygen constitutes approximately 21% of air. It supports life and combustion. High oxygen concentration will promote combustion, causing very hot or even explosive conditions.

This phenomenon appears with an oxygen concentration of 23% and intensifies as the oxygen concentration increases.

USES

Oxygen sustains life, supports combustion, is used in steel making and, in combination with fuel gas is used for welding, cutting, heating and brazing.

Also used in manufacture of methanol, ethylene oxide, titanium dioxide and for the enrichment of furnace atmospheres for smelting of copper, zinc, etc.

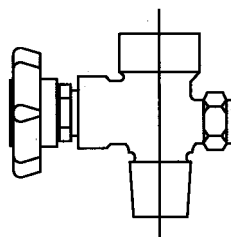
In the paper industry oxygen is employed for bleaching pulp, oxidation of black liquor and purification of wastes.

HAZARDS

Oxygen vigorously supports combustion of many materials which will not normally burn in air.



CYLINDER
IDENTIFICATION
COLOUR
• BLACK



OUTLET
CONNECTION
AS 2473 TYPE 10, TYPE 10.5
FEMALE R.H. THREAD



CLASS LABEL



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T E C H S P E C S

H A N D L I N G & S A F E T Y

CYLINDER STORAGE AND HANDLING

Store cylinders upright in a cool, well ventilated area away from sources of heat and combustible materials.

Protect cylinders, particularly the valve, against physical damage whether full or empty.

Do not artificially heat cylinder. Keep away from artificial heat.

Do not allow any part of the cylinder to be exposed to temperatures above 55°C.

Check that cylinders are clearly labelled.

Keep outlet seals in place on full cylinders.

Close valves on empty cylinders.

LEAKING CYLINDERS

Move to a well ventilated area.

Stop leak if possible to do so.

Evacuate area way from direction of movement of gas.

No smoking or naked lights.

If leak cannot be stopped, move cylinder to a safe area and allow to empty.

MATERIALS COMPATIBILITY

Equipment to handle oxygen must be constructed of suitable materials. Copper, brass and stainless steel are the most commonly used metals. Most lubricants are NOT compatible.

PRECAUTIONS IN USE

Never allow oil or grease on cylinder or valve.

Close cylinder valve when not in use.

Always use regulator to connect to system.

Secure cylinders to prevent falling over.

Open cylinder valve slowly.

Never smoke or carry out hot work in oxygen rich atmosphere.

Remove clothing saturated with oxygen.

PERSONAL PROTECTION

Personnel regularly engaged in the use and movement of gas cylinders must be provided with:

- Safety footwear
- Leather or PVC gloves

Full cover overalls & safety glasses are recommended.

FIRE

Oxygen is not flammable but vigorously supports combustion.

Shut off oxygen supply if safe to do so.

Call fire brigade.

Cool cylinders with water from protected location.

Do not approach cylinders suspected to be hot.

Remove cool cylinders from path of the fire.

If unable to keep containers cool, evacuate area.

FIRST AID

If victim is conscious:

- Move to uncontaminated area to breathe fresh air.
- Keep warm and quiet.
- Call doctor and advise that patient is experiencing (has experienced) hyperoxia.

If victim is unconscious:

- Move to uncontaminated area and give assisted respiration.
- When breathing is restored, treatment as above. Continued treatment should be symptomatic and supportive.

N.B. Prompt medical attention is mandatory in all cases of overexposure to oxygen. Rescue personnel should be aware of extreme fire hazards associated with oxygen rich atmosphere.

ADDITIONAL INFORMATION

The information, recommendations and data contained in this publication are intended to give basic guidance to users of Air Liquide gases for their safe handling and use.

Material Safety Data Sheets (MSDS) for gases and gas mixtures supplied by Air Liquide are also available.

It is essential for the safe use of gases that personnel are properly trained and are fully aware of the possible hazards.

Further information and advice on any matter relating to the safe handling or use of these products may be obtained from the nearest Air Liquide office.