

BOC GASES

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: OXYGEN

1. Product and Company Identification

BOC India Limited
Oxygen House
P43 Taratala Road
Kolkata 700 088
West Bengal, India

BOC India Limited
Unit:

TELEPHONE NUMBER: (033) 24014708-20
Customer Service Center: 1800 345 6789

PRODUCT NAME: MEDICAL OXYGEN
CHEMICAL NAME: Oxygen
COMMON NAMES/SYNONYMS: None

2. Composition/information on ingredients

Substance/Preparation
Components/Impurities

Substance
Contains no other components or impurities which will influence the classification of the product.
07782-44-7
2319569

CAS Nr
EEC Nr (from EINESC)

3. Hazards identification

Hazards identification

Compressed gas.

Oxidant. Strongly supports combustion. May react violently with combustible materials.

4. First aid measures

Inhalation

Continuous inhalation of concentrations higher than 75% may cause nausea, dizziness, respiratory difficulty and convulsion.

5. Fire fighting measures

Specific hazards

Supports combustion.
Exposure to fire may cause containers to rupture/explode.
Non flammable.

Hazardous combustion products
Suitable extinguishing media
Specific methods

None
All known extinguishants can be used.
nitric oxide/nitrogen dioxide
If possible, stop flow of product.
Move container away or cool with water from a protected position.
None.

Special protective equipment for fire fighters

6. Accidental release measures

Personal precautions

Evacuate area. Ensure adequate ventilation.
Ensure adequate air ventilation.
Ventilate area.
Eliminate ignition sources.
Try to stop release.

Environmental precautions

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
Ventilate area

Clean up methods

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 your gas supplier if in doubt.
Keep away from ignition sources (including static discharges). Refer to supplier's 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.
Wear suitable hand, body and head protection. Wear goggles with suitable filter lenses when use is cutting/welding.
Avoid oxygen rich (>21%) atmospheres.
Ensure adequate ventilation.

9. Physical and chemical properties

Molecular weight
Melting point
Boiling point
Critical temperature
Relative density, gas
Relative density, liquid
Vapour pressure 20°C
Solubility mg/l water
Appearance/Colour
Odour
Autoignition temperature
Flammability range
Other data

32
-219°C
-183°C
-118°C
1.1 (air=1)
1.1 (water=1)
Not applicable
39mg/l
Colourless gas
No odour warning properties
Not applicable
Oxidiser
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

Retrolental fibroplasia in premature infants exposed to oxygen concentrations greater than 40%. Central nervous system toxicity including dizziness, convulsions and loss of consciousness after only 2-3 hours of exposure to pure oxygen at 2 or more atmospheres, e.g. sports and deep sea diving. Retrosternal soreness associated with coughing and breathing difficulties, made worse by smoking and exposure to cold air after breathing pure oxygen at atmospheric pressure for several hours.

12. Ecological information

General

No known ecological damage caused by this product.

13. Disposal considerations

General

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

14. Transport information

UN Nr
Class/Div
Subsidiary risk
ADR/RID Item Nr
ADR/RID Hazard Nr
Tremcard Nr
Labelling ADR

1072
2.2
5.1
2.1a
25
842
Label 2: non flammable non toxic gas.
Label 05: 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 1 of Dir 67/548
EC Classification

Not included in Annex 1.
Proposed by the industry
0;R8A,
O
8A
9,17A

-Symbols
-R Phrases
-S Phrases
Labelling of cylinders
-Symbols

Road transport symbols are used and selected according to the most stringent product classification - EC or ADR
Label 2: non flammable non toxic gas.
Label 05: fire intensifying risk.
R8A Strongly supports combustion.
S9 Keep container in well ventilated place.
S17A Keep away from combustible material, use no oil or grease.

Risk phrases
Safety phrases

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.
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.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).