



Safety Data Sheet

Document No: SOXAL/SDS/47
Revision No: Rev. 2
Revision Date: 01 Jan. 07
Issue/Print Date:

OXYGEN

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product name Oxygen
Chemical name/formula Oxygen / O₂
Company identification See header and footer
Emergency phone no. 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 No. 7782-44-7

3. HAZARDS IDENTIFICATION

General

- 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.
- Remove victim to uncontaminated area. Keep victim warm and rested.
- Call a doctor.

Skin/Eye contact

- No adverse effects anticipated.

Ingestion

- Ingestion is not considered a potential route of exposure.

5. FIRE-FIGHTING MEASURES

Specific hazards

- Supports combustion.
- Exposure to fire may cause containers to rupture or explode.

Hazardous combustion products

- None.

Suitable extinguishing media

- All known extinguishants can be used.

Specific methods

- If possible, stop flow of product.
- Move container away or cool with water from a protected position.

Special protective equipment (for fire fighters)

- In confined space, use a self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

- Evacuate area.
- Eliminate ignition sources.
- Use protective clothing.
- Ensure adequate air ventilation.

Environmental precautions

- Try to stop release.
- Prevent from entering sewers, basements and work pits or any place where its accumulation can be dangerous.

Clean up methods

- Ventilate area.

7. HANDLING & STORAGE

General

- 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.
- Use only properly specified equipment, which is suitable for this product, its supply pressure and temperature.
- Keep away from ignition sources (including static discharges).
- Keep container below 50°C in a well-ventilated place.
- Refer to SOXAL's booklet on "safe handling, transport and storage of compressed gas cylinder" or contact SOXAL if in doubt.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure limit value

- None

Personal protection

- Do not smoke while handling product.
- Wear suitable hand, body and head protection.
- Avoid oxygen rich (>21%) atmospheres.
- Ensure adequate ventilation.

9. PHYSICAL & 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 No odour warning properties
Auto-ignition temperature Not applicable
Flammability range Oxidiser
Others Gas or vapour is heavier than air. May accumulate in confined spaces, at or below ground level.

For product and/or safety enquiry, please send, call, fax or log on to:

SINGAPORE OXYGEN AIR LIQUIDE PTE LTD

16, Jalan Buroh, Singapore 619475.

Tel: (65) 6265 3788 or 6265 4555 Fax: (65) 6265 1441 or 6268 8403 Website: www.soxal.com Business Registration No: 197001157D

OXYGEN

10. STABILITY & REACTIVITY

General

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

11. TOXICOLOGICAL INFORMATION

General

- No known toxicological effects from this product.

12. ECOLOGICAL INFORMATION

General

- No known ecological damage caused by this product.

13. DISPOSAL CONSIDERATIONS

General

- Do not discharge into any place where its accumulation could be dangerous.
- Vent to atmosphere in a well ventilated place.
- Contact SOXAL if guidance is required.

14. TRANSPORT INFORMATION

UN No.	1072
Class/Division	2.2 (Non-Flammable Gas)
Subsidiary risk	Oxidiser
UN proper shipping name	Oxygen, compressed
IMO/IATA shipping labels	



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.

Other transport information

- Before transporting product containers, ensure that they are firmly secured and:
 - compliance with applicable regulations;
 - 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; and
 - there is adequate ventilation.

15. REGULATORY INFORMATION

General

- Singapore's WSH (General Provisions) Regulations 2006, Sections 42 & 43.
- Singapore Standards:
 - CP 12:2000 Part 1
 - CP 98:2003
 - SS 152:2003
 - SS 286:1984 Part 1 to Part 5

Risk and safety phrases

- R8 - Contact with combustible materials may cause fire.
- S17 - Keep away from combustible materials.

16. OTHER INFORMATION

General

- Ensure all local regulations or legislations are observed.
- Ensure operators or users 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 revising.
- 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.
- This safety data sheet is for information purposes only and is subjected to change without notice.

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