



# SAFETY DATA SHEET

SDS No. : SDS - 010  
Revision : 0  
Issue Date : 04.09.2015

## OXYGEN COMPRESSED

### 1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/ UNDERTAKING.

**Trade/ Commercial Name** : Oxygen (compressed)  
**Chemical Description** : Oxygen  
: CAS No: 007782-44-7, EC No: 231-956-9 Index No.: 008-001-00-8  
**Chemical Formula** : O<sub>2</sub>  
**Use** : Industrial & Professional. Perform risk assessment prior to use.  
**Company Identification** : Air Liquide India Holding Pvt. Ltd.  
: A-24/9, Mohan Co-operative Industrial Estate,  
: Mathura Road, New Delhi-110044.  
**Emergency Contact No.** : 011-30157288

### 2. HAZARDS IDENTIFICATION

**Physical Hazards** : Oxidizing Gases – Category 1 – Danger (H270)  
: Gases under pressure – Compressed gas – Warning (H280)

**Label Elements** : Oxidant (5.1)  
: Non flammable and Non toxic gas(2.2)

**Hazard Pictograms Code** : GHS03 - GHS04

**Hazard Statement** : H270: May cause or intensify fire. Strong Oxidizer.  
: H280: Contains gas under pressure; may explode if heated.

**Precautionary Statements** : Keep valves and fitting free from oil and grease.  
: Keep store/ away from clothing/ combustible material.  
: Wear cold insulating gloves/ face shield/ eye protection  
: Do not walk on or roll equipment over spill.  
: Close valve after each use and when empty.

**Storage** : P403: Store in a well-ventilated place.

**Other Hazards** : None.

**Symbol(s)** : O: Oxidizing.



### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name	CAS (Product identifier)	%
Oxygen, O <sub>2</sub>	7782-44-7	99.5 - 100%

### 4. FIRST AID MEASURES

**Inhalation** : Continuous inhalation of concentration higher than 75% may cause nausea, dizziness, respiratory, difficulty and convulsion. Remove victim to uncontaminated area.

**Skin/ Eye Contact** : Immediately wash eyes with copious amount of water for at least 15 minutes. In case of frostbite, spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.

**Ingestion** : Since the product is gas, it will be probably being inhaled rather than ingested. See above.

### 5. FIRE FIGHTING MEASURES

**Specific Hazard** : Exposure to fire may cause containers to rupture/ explode.

**Hazardous Combustion** : None.

**Suitable Extinguishing Media** : All known extinguishants can be used.

**Products Specific Methods** : If possible, stop the flow of product. Move away from the container and cool with water from a protected position. Water surrounding area (from protected position) to contain fire.

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Special Protective Equipment for Fire Fighters : None.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal Precautions** : Evacuate area. Use protective clothing. Ensure adequate ventilation. Eliminate ignition sources.
- Environmental Precautions** : Try to stop release.  
Prevent from entering sewers, basements and workpits, or any place where its accumulation can be.
- Methods for Cleaning up** : Ventilate the area and keep evacuated.

**7. HANDLING & STORAGE**

- Handling** : Use no oil and grease.  
Open valve slowly to avoid pressure shock.  
Suck back of water into the container must be prevented.  
Do not allow backfeed into the container.  
Use only properly specified equipments which are suitable for this product, its supply pressure and temperature. Contact your Gas supplier if in doubt. Keep away from ignition sources.
- Storage** : Segregate from flammable gases and other flammable material in the store.  
Keep container below 50°C in a well ventilated place.

**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

- Personal Protection** : Do not smoke while handling the product. Ensure adequate ventilation. Protect eyes, face and skin from liquid splashes. Use proper PPEs, while using the product. Avoid Oxygen rich (>21%) atmosphere.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- Physical State at 20°C** : Gas.
- Color** : Colorless Gas.
- Odor** : No odor warning properties.
- Molecular Weight** : 32 g/mole.
- Molecular Formula** : O<sub>2</sub>
- Boiling/ Condensation Point** : -183°C
- Melting/ freezing point** : -219°C
- Critical temperature** : -188°C
- Relative Density, Gas (air=1)** : 1.1
- Relative Density, Liquid (water=1)** : 1.1
- Flammability Range (vol. % in air)** : Oxidizer.
- Auto-Ignition Temperature** : Not Applicable.
- Other Data** : Gas/ Vapors heavier than air. May accumulate in confined space, 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 oxidizes organic material. Keep equipment free from oil and grease.
- Hazardous Decomposition Products** : None.



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### 11. TOXICOLOGICAL INFORMATION

**Toxicity Information** : No known toxicological effect from this product.

### 12. ECOLOGICAL INFORMATION

**Ecological Effect Information** : 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 required.

### 14. TRANSPORT INFORMATION

**UN Number** : 1072  
**Labeling ADR, IMDG ,IATA** : Oxidizing substances (5.1)  
Non flammable and Non toxic gas (2.2)



#### Land Transport:

**UN Proper Shipping Name** : Oxygen, Compressed.  
**Transport Hazard Class** : 2  
**Hazchem code** : 2PE  
**Tunnel/ Underpass Restriction** : Passage forbidden through long tunnels and underpasses.

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

Ensure vehicle drivers are aware of the potential hazards of the load and know what to do in the event of an accident or an emergency.

Before transporting product containers ensure:

- That container is firmly secured.
- 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
- Product transport container/ tank should keep or stand in well ventilated area.

### 15. REGULATORY INFORMATION

**Workplace Hazardous Materials Information System (WHMIS)**

1. **Class A:** Compressed gas.
2. Oxidant (5.1), Non flammable and non toxic gas (2.2).
3. Ensure all national/ local regulations are observed.

### 16. OTHER INFORMATION

- May cause frostbite.
- Keep container in a well-ventilated place.
- Do not breathe the gas.
- Asphyxiate in high concentrations.
- The hazard and asphyxiation are often overlooked and must be stressed during operator training.

#### **DISCLAIMER OF LIABILITY:**

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. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.