

## Oxygen

### 1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

**Trade name** : Oxygen  
**SDS No.** : 005A  
**Chemical Formula** : O<sub>2</sub>  
**Company Identification** : Air Liquide Philippines Inc.  
**Main Office** : 12F Ecotower, 32<sup>nd</sup> St. cor. 9<sup>th</sup> Ave., Bonifacio Global City, Taguig City 1634, Philippines  
**Main Plant** : Sandoval Ave., Pinagbuhatan, Pasig City  
**Phone No.** : (02) 838 – 1780 to 83 / 837-8135 to 37 / 8378-156  
: 09189168312 (Customer hotline 6PM-8AM)

### 2 HAZARDS IDENTIFICATION

#### Classification of the substance

- **Physical Hazard** : Gases under pressure - compressed gas  
: Oxidizing gas
- **Health Hazard** : no acute toxicity

#### Label Elements

- **Hazard Pictogram**



- **Signal word** : Danger
- **Hazard Statement** : Contains gas under pressure - may explode if heated  
: May cause or intensify fire; oxidizer
- **Precautionary statements**
  - **Prevention** : Store away from combustible materials  
: Keep reduction valves free from grease and oil
  - **Response** : In case of fire, stop leak is safe to do so
  - **Storage** : Store in a well ventilated area



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### Other Hazard

- **Other hazards** : Oxidant – strongly supports combustion. May react violently with combustible materials.

### 3 COMPOSITION / INFORMATION ON INGREDIENTS

#### Substance / Preparation

#### : Substance

Substance Name	Contents	CAS No.	EC No.	Index No.	Classification
Oxygen (refrigerated)	100%	7782-44-7	231-956-9	008-001-00-8	O; R8

Contains no other components or impurities which will influence the classification of the product.

### 4 FIRST AID MEASURES

#### First Aid Measures

##### - Inhalation

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

### 5 FIRE FIGHTING MEASURES

#### Flammable class

: Non flammable

#### Specific hazards

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

#### Hazardous Combustion Products

: None

#### Extinguishing media

##### - Suitable extinguishing media

: All known extinguishants can be used.

##### Specific methods

: If possible stop flow of product  
: Move away from the container 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.



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### 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

### Storage

: Segregate from flammable gases and other flammable materials in store.

Keep container below 50 degrees C in a well ventilated place.

### Handling

: Use no oil or grease.

Open valves 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 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 discharge)

Refer to supplier's container handling instructions.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Engineering Measures/Controls

: Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof - electrical, ventilating and/or lighting equipment.

### Personal protection

Respiratory

: No data available

Eye / Face

: Wear Safety glasses.

Skin / Body

: Wear leather gloves when handling cylinders.

### Environmental Exposure Controls

: Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.



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### 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Color</b>	: Colorless gas
<b>Odor</b>	: No odor warning properties
<b>Molecular Weight</b>	: 32
<b>Melting point (degrees C)</b>	: -219
<b>Boiling point (degrees C)</b>	: -183
<b>Critical temperature (degrees C)</b>	: -118
<b>Vapour pressure, 20 degrees C</b>	: Not Applicable
<b>Relative density, gas (air =1)</b>	: 1.1
<b>Relative density, liquid (water = 1)</b>	: 1.1
<b>Solubility in water [mg/l]</b>	: 39
<b>Flammability range [vol% in air]</b>	: Oxidizer
<b>Auto – ignition temperature (degrees C)</b>	: Not applicable
<b>Other data</b>	: Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level.

### 10 STABILITY AND REACTIVITY

<b>Stability and reactivity</b>	: May react violently with combustible materials. May react violently with reducing agents. Violently oxidizes organic material.
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### 11 TOXICOLOGICAL INFORMATION

<b>Toxicity information</b>	: No toxicological effects from this product
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### 12 ECOLOGICAL INFORMATION

**Ecological effects information** : No 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 No.** : 1072  
**H.I. nr** : 25

**ADR / RID**  
- Proper shipping name : OXYGEN, COMPRESSED  
- ADR Class : 2  
- ADR / RID Classification code : 1 O

- Labelling ADR :



: 2.2: Non flammable, non toxic gas. 5.1. Oxidizing substances

**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 containers are firmly secured.  
- Ensure cylinder valve is closed and not leaking.  
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.



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- Ensure valve protection device (where provided) is correctly fitted.
- Ensure there is adequate ventilation.
- Compliance with applicable regulations

### 15 REGULATORY INFORMATION

**EC Classification** : Index No: 008-001-00-8  
O; R8

**EC Labeling**

- **Symbol (s)** : O: Oxidizing
- **R Phrase (s)** : R8: Contact with combustible material may cause fire.
- **S Phrase (s)** : S17: Keep away from combustible material.

### 16 OTHER INFORMATION

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

#### Recommended uses and restrictions:

This SDS is for information purposes only and is subject to change without prior notice. [Prior to purchase of products, please contact your local AIR LIQUIDE office for the latest SDS edition].

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