1. Identification of the substance/mixture and of the company

Product Name: OXYGEN, Compressed.
Chemical formula: O_2
UN Number: UN1072
Uses: **Medical and Industrial use.**
Perform risk assessment prior to use.
Contact Supplier for more information
Shelf Life: 5 years under proper handling and storage conditions

Company Identification:
Gaz Carbonique Ltée
Lot 1, Ground Floor, Le Hub,
DBM Industrial Zone, Phoenix
Mauritius - Indian Ocean
Tel: (230) 603 2992
Fax: (230) 696 5973
Email: contact@gazcarbo.mu

Contact Person:
Mr. Arnaud Rougier Lagane
Chief Operating Manager

2. Hazards Identification

Classification of the substance or mixture
Hazard Class and Category Code Regulation EC 1272/2008 (CLP/GHS)
Oxidizing gases - Category 1 - Danger - (CLP: OX. Gas 1) - H270
Gases under pressure - Compressed gas - Warning - (CLP: Press. Gas) - H280

Classification EC 67/548 or EC 1999/45
O; R8 - Contact with combustible material may cause fire

Label Elements
Labelling regulation EC 1272/2008 (CLP)

- Hazard Pictograms

Hazard Pictograms code: GHS03 - GHS04
Signal word: Danger
Hazard Statement: H270 - May cause or intensify fire; oxidizer
H280 - Contains gas under pressure; may explode if heated.

Precautionary Statements:

- **Prevention:** P220 -Keep away from combustible materials
P244 -Keep valves and fittings free from oil and grease
- **Response:** P370+P376 - In case of fire: Stop leak if safe to do so.
- **Storage:** P403 - Store in a well-ventilated place.

GAZ CARBONIQUE LTÉE
HEAD OFFICE: Lot1, Ground floor, Le Hub, DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 5973 – E-mail: contact@gazcarbo.mu
COMMERCIAL UNIT: DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 697 3653 – Email: sales@gazcarbo.mu
FACTORY & CYLINDER TESTING: 4 Willoughby Road, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 4161 – Email: production@gazcarbo.mu

3. Composition/Information on Ingredients

Substance/Mixture:	Substance
Substance Name:	Oxygen, Compressed.
CAS NO. :	7782-44-7
Index-Nr.:	008-001-00-8
EC No:	231-956-9
REACH Registration Number:	Listed in Annex IV/V of REACH, exempted from registration. Registration deadline not expired. Registration not required: Substance manufacture or imported < 1t/y

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

4. First Aid measures

Inhalation:	Remove victim to uncontaminated area. Continuous inhalation of concentrations higher than 75% may cause nausea, dizziness, respiratory difficulty and convulsion. Keep victim warm and rested. Call a doctor.
Skin/Eye contact:	Adverse effects not expected from this product
Ingestion:	Ingestion is not considered a potential route of exposure.

5. Fire Fighting Measures

Special extinguishing media:	All known extinguishants can be used
Specific Hazards:	Exposure to fire may cause containers to rupture/explode. Supports combustion.
Hazardous combustion products:	None.
Specific methods:	Coordinate fire measure to the surrounding fire. Cool endangered containers with water spray jet from a protected position. If possible, stop flow of product.
Special protective equipment for Fire fighters:	None.

6. Accidental Release Measures

Personal precautions:	Try to stop release. Evacuate area. Ensure adequate air ventilation. Eliminate Ignition sources. Monitor concentration of released product. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
Environmental precautions:	Try to stop release.
Clean up methods:	Ventilate area.

GAZ CARBONIQUE LTÉE
HEAD OFFICE: Lot1, Ground floor, Le Hub, DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 5973 – E-mail: contact@gazcarbo.mu
COMMERCIAL UNIT: DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 697 3653 – Email: sales@gazcarbo.mu
FACTORY & CYLINDER TESTING: 4 Willoughby Road, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 4161 – Email: production@gazcarbo.mu

7. Handling and Storage

Safe Use of the product:
Use no oil and grease.
Use only properly specified equipment that is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
Use only oxygen approved lubricants and oxygen approved sealings.
Use only with equipment cleaned for oxygen service and rated for cylinder pressure. Keep equipment free from oil and grease.
Only experienced and properly instructed persons should handle gases under pressure.
The product must be handled in accordance with good industrial hygiene and safety procedures.
Do not smoke while handling product.
Ensure the complete gas system was (or is regularly) checks for leaks before use.

Safe handling of the gas receptacle:
Do not allow backfeed into the container.
Open valve slowly to avoid pressure shock.
Suck back of water into the container must be prevented.
Protect cylinders from physical damage; do not drag, roll, slide or drop. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.
If user has trouble operating cylinder valve discontinue use and contact supplier.
Never attempt to repair or modify container valves or safety relief devices.
Keep container valve outlets clean and free form contaminates particularly oil and water.
Close cylinder valve after each use and when empty, even if still connected to equipment.
Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment.
Never attempt to transfer gases from one cylinder to another.
Never use direct flame or electrical heating devices to raise the pressure of a container.
Do not remove or deface labels provided by the supplier for the identification of the cylinder contents.

Handling:
Use no oil and grease
Open valve slowly to avoid pressure shock.
Suck back of water into the container must be prevented.
Keep away from ignition sources (including static discharges).

Storage:
Keep container below 50°C in a well-ventilated place.
Keep away from combustible materials.
Segregate from flammable gases and other flammable materials in store.
Observe all regulations and local requirements regarding storage of cylinders/containers.
Containers should not be stored in conditions likely to encourage corrosion.
Containers should be stored in vertical position, and properly secured to prevent toppling.
Stored containers should be periodically checked for general condition and leakage.
Stored containers in location free from fire risk and away from sources of heat and ignition.
Cylinder valve guards or caps should be in place.

GAZ CARBONIQUE LTÉE
HEAD OFFICE: Lot1, Ground floor, Le Hub, DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 5973 – E-mail: contact@gazcarbo.mu
COMMERCIAL UNIT: DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 697 3653 – Email: sales@gazcarbo.mu
FACTORY & CYLINDER TESTING: 4 Willoughby Road, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 4161 – Email: production@gazcarbo.mu

8. Exposure Controls/Personal Protection

Control parameters:

DNEL: Derived no effect level: None available

PNEC: Predicted no effect Concentration: None available

Engineering controls:
System under pressure should be regularly checked for leakages.
Provide adequate general and local exhaust ventilation.
Avoid oxygen rich (>23%) atmospheres.
Gas detectors should be used when oxidising gases may be released.
Consider work permit system e.g. for maintenance activities.

Personal protection & Protective Equipment:
Conduct and document risk assessment in each work area to assess the risks related to the use of the product and select the appropriate PPEs.
The following recommendations should be considered:
Wear leather safety gloves and safety shoes when handling cylinders.
Wear safety glasses with side shields.
Wear suitable hand, body and head protection.
Wear goggles with suitable filter lenses when use in cutting/welding.

Environmental exposure controls: None necessary.

9. Physical and Chemical Properties

General Information

Appearance/Colour:	Colourless gas
Odour:	No odour warning properties.
Odour threshold:	Odour threshold is subjective and inadequate to warm for overexposure.
Molar Mass:	32 g/mol
Melting point:	-219◦C
Boiling point:	-183◦C
Critical temperature:	-118◦C
Auto-ignition temperature:	Not applicable
Flash point (◦C):	Not applicable for gases and gas-mixtures.
Evaporation rate (ether=1):	Not applicable for gases and gas-mixtures.
Flammability range:	Non-flammable
Vapour pressure (20◦C):	Not applicable
Relative density, gas (air=1):	1.1
Relative density, liquid (water=1):	1.1
Solubility in water:	39 mg/l
Partition coefficient n-octonal/water:	Not applicable for inorganic gases.
Oxidising properties:	Oxidiser

Other data: Gas/vapour heavier than air, may accumulate in confined spaces, particularly at or below ground level.

GAZ CARBONIQUE LTÉE
HEAD OFFICE: Lot1, Ground floor, Le Hub, DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 5973 – E-mail: contact@gazcarbo.mu
COMMERCIAL UNIT: DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 697 3653 – Email: sales@gazcarbo.mu
FACTORY & CYLINDER TESTING: 4 Willoughby Road, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 4161 – Email: production@gazcarbo.mu

10. Stability and reactivity

Reactivity: No reactivity hazard other than the effects described in sub-sections below.
Chemical Stability: Stable under normal conditions.
Possibility of hazardous reactions: Violently oxidises organic material.
Conditions to avoid: None under recommended storage and handling conditions (see section 7)
Incompatible materials: Consider potential toxicity hazard due to the presence of chlorinated or fluorinated polymers in high pressure (>30 bars) oxygen lines in case of combustion.
May react violently with combustible materials.
May react violently with reducing agents.
Keep equipment free from oil and grease.

11. Toxicological Information

General
No known toxicological effects from this product.

12. Ecological Information

General
No ecological damage caused by this product

13. Disposal Considerations

General
May be vented 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 number: 1072
UN proper shipping Name: OXYGEN, COMPRESSED
Labelling ADR, IMDG, IATA:

: 2.2 : Non Flammable. non toxic gas.
5.1: Oxidising substances.

Land Transport (ADR/RID)
Hazard number: 225
Packing instruction: P200

Sea Transport (IMDG)
Class: 2.2
Packing Instruction: P200
Emergency Schedule (EmS) Fire: F-C
Emergency Schedule (EmS) Spillage: S-W

GAZ CARBONIQUE LTÉE
HEAD OFFICE: Lot1, Ground floor, Le Hub, DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 5973 – E-mail: contact@gazcarbo.mu
COMMERCIAL UNIT: DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 697 3653 – Email: sales@gazcarbo.mu
FACTORY & CYLINDER TESTING: 4 Willoughby Road, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 4161 – Email: production@gazcarbo.mu

14. Transport Information (continued)

Air Transport (IATA-DGR, ICAO-TI)

Class:	2.2
Packing Instruction:	P200
Passenger and Cargo Aircraft:	Allowed
Cargo Aircraft Only:	Allowed.

Special precautions for user:

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.
Avoid transport on vehicles where the load space is not separated from the driver's compartment.
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.
— Ensure valve protection device (where provided) is correctly fitted.
— Ensure there is adequate ventilation.

15. Regulatory Information

EU legislation: None.
National legislation: Ensure all national/local regulations are observed.

16. Other Information

DISCLAIMER OF LIABILITY:

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.

End of document.

GAZ CARBONIQUE LTÉE
HEAD OFFICE: Lot1, Ground floor, Le Hub, DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 5973 – E-mail: contact@gazcarbo.mu
COMMERCIAL UNIT: DBM Industrial Zone, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 697 3653 – Email: sales@gazcarbo.mu
FACTORY & CYLINDER TESTING: 4 Willoughby Road, Phoenix, Mauritius
T: [230] 603 2992 – F: [230] 696 4161 – Email: production@gazcarbo.mu