SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product Identifier

Product Name: OXYGEN, COMPRESSED
Synonyms: O_2, Industrial Oxygen
Product Code: A3000

1.2 Relevant Identified Uses and Uses Advised Against

Identified Uses: Welding and cutting, combustion processes, laboratory and industrial applications
Uses Advised Against: Not for medical or breathing use unless certified as such

1.3 Supplier Details

Supplier: Industrial Gases New Zealand Ltd t/a Eziswap Gas
Address: 6 and 10 Canaveral Drive, Rosedale, Auckland, NEW ZEALAND
Phone: +64 9 444 0357
Email: sales@eziswapgas.co.nz
Website: http://www.eziswapgas.co.nz

1.4 Emergency Telephone Number

Emergency Telephone (NZ Only): 111

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

- Gases under pressure – Compressed gas
- Oxidising gases – Category 1

2.2 GHS Label Elements

Signal word: **DANGER**
Pictogram(s):

Hazard Statements

- H270: May cause or intensify fire; oxidiser
- H280: Contains gas under pressure; may explode if heated

Precautionary Statements

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

2.3 Other Hazards

- Strong oxidiser – promotes rapid combustion
- Oxygen-enriched atmospheres can cause severe fire risk
- Never use oil or grease on oxygen equipment

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	CAS Number	EC Number	Content (v/v)
Oxygen	7782-44-7	231-956-9	>99.5%

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

- **Inhalation:** Not toxic but excessive oxygen (>75%) may affect respiratory system. Move to fresh air.
- **Skin Contact:** No adverse effects expected under normal conditions
- **Eye Contact**: No adverse effects expected
- **Ingestion:** Not applicable
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4.2 Most Important Symptoms and Effects

- In high concentrations, may cause dry throat, coughing or nose irritation
- Contact with rapidly expanding gas may cause cold burns

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

- Treat symptomatically
- Provide oxygen-free environment where applicable

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

- Use extinguishing media suitable for surrounding materials
- Do not use chemical extinguishers on oxygen-fed fires

5.2 Special Hazards Arising from the Substance

- Strong oxidiser – intensifies combustion
- Cylinders may rupture violently if exposed to fire

5.3 Advice for Firefighters

- Wear SCBA and full protective gear
- Cool cylinders with water spray
- Evacuate area if cylinder is exposed to heat

5.4 Hazchem Code

2S

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

- Evacuate area
- Eliminate ignition sources
- Provide adequate ventilation
- Do not touch leaking equipment with oily hands or gloves

6.2 Environmental Precautions

Non-toxic, but may support combustion in confined spaces

6.3 Methods and Materials for Containment and Clean-Up

- Stop leak if safe to do so
- Allow gas to disperse naturally in open air

6.4 Reference to Other Sections

See Sections 8 and 13

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

- Do not allow oil, grease or other combustible materials to contact cylinders or equipment
- Use only with clean, oxygen-compatible materials and fittings
- Open valves slowly to avoid rapid pressurisation

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Do not store near sources of ignition or incompatible materials. Cylinders should be stored below 45°C in a secure area, upright and restrained to prevent cylinders from falling. Cylinders should also be stored in a dry, well ventilated area constructed of noncombustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits.

7.3 Specific End Use(s)

Industrial oxygen applications

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters (Workplace Exposure Standards - NZ WES 2022)

- Oxygen: No exposure limit assigned (as an oxidising agent)

8.2 Exposure Controls

- **Engineering Controls**: Use only in well-ventilated areas
- **Personal Protective Equipment (PPE):**
  - **Eye Protection:** Safety goggles when handling
  - **Skin Protection:** Protective gloves for mechanical handling
  - **Respiratory Protection:** SCBA in case of leaks in confined areas

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Colourless, odourless gas
Odour Threshold	Not applicable
pH	Not applicable
Boiling Point	-183°C
Vapour Density (Air=1)	1.1
Flammability	Non-flammable, but oxidising
Solubility in Water	Slightly soluble
Critical Temperature	-118.6°C

10. STABILITY AND REACTIVITY

10.1 Reactivity
Supports combustion of most substances

10.2 Chemical Stability
Stable under recommended storage conditions

10.3 Possibility of Hazardous Reactions
Intensifies fire when in contact with combustibles

10.4 Conditions to Avoid
Heat, sparks, oil, grease, and flammable materials

10.5 Incompatible Materials
Combustible materials such as oil and grease can spontaneously ignite at low temperatures in oxygen enriched atmospheres. Materials which burn in air, will burn more vigorously in oxygen enriched atmospheres. Metals can be ignited and will continue to burn in pure oxygen atmospheres under specific conditions of temperature and pressure.

10.6 Hazardous Decomposition Products
None

11. TOXICOLOGICAL INFORMATION

- **Acute Toxicity**: Not toxic under normal conditions
- **Inhalation:** Oxygen at high pressure may affect lungs and CNS
- **Skin/Eye Contact**: No adverse effects expected
- **Chronic Effects:** No known chronic health effects

12. ECOLOGICAL INFORMATION

- **Ecotoxicity:** Not harmful to aquatic or terrestrial life
- **Persistence and Degradability**: Will dissipate into the atmosphere
- **Bioaccumulation:** Not applicable
- **Mobility:** High
- **Other Adverse Effects:** May cause fire if released into confined or combustible environments

13. DISPOSAL CONSIDERATIONS

- **Product**: Vent to atmosphere in an open, well-ventilated area
- **Container:** Return cylinders to supplier
- Do not incinerate or puncture cylinders

14. TRANSPORT INFORMATION

Mode	UN Number	Proper Shipping Name	Class	Packing Group	Hazchem	EMS
Land	UN1072	Oxygen, Compressed	2.2, 5.1	Not applicable	2S	—
Sea (IMDG)	UN1072	Oxygen, Compressed	2.2, 5.1	Not applicable	2S	F-C, S-W
Air (IATA)	UN1072	Oxygen, Compressed	2.2, 5.1	Not applicable	—	—

Additional Notes:

- Classified as a Dangerous Good under NZS 5433, IMDG, and IATA
- Hazard Labels:

- Ensure cylinder valves are closed and protected during transport

15. REGULATORY INFORMATION

- **HSNO Approval Code:** HSR001029
- **Group Standard**: Oxygen
- **Inventory Status:** Listed on NZIoC (New Zealand Inventory of Chemicals)

16. OTHER INFORMATION

- This SDS has been prepared in accordance with the Health and Safety at Work (Hazardous Substances) Regulations 2017 and GHS 7
- Do not use in confined spaces without proper ventilation and oxygen monitoring
- Never use oil or grease on oxygen equipment
- Revision Date: June 2025