

SAFETY DATA SHEET

Product Name:
OXYGEN, Compressed (O²)



Label 2.2 : Non flammable, non toxic gas.



Label 5.1 : Oxidizing substances.

1. PRODUCT IDENTIFICATION

Chemical Name: Oxygen, Compressed
UN Number: 1072
Poisons Schedule Number: None allocated
Use: Sustains life, supports combustion. Used in steel making and with a fuel gas for welding, cutting and heating applications.

2. HAZARDS IDENTIFICATION

Dangerous Goods Class: 2.2 sub 5.1
HSNO Classification: 5.1.2A
Hazchem Code: 2S
Hazard Statement: May cause or intensify fire: Oxidiser.
Precautionary Statements: Read label before use.
 Read Safety Data Sheet.
 Keep away from heat, sparks and open flames.
 Keep away from combustible materials and clothing.
 Take precautions to avoid mixing with combustibles.
 Wear protective gloves and eye protection.
 In case of fire: Stop leak if safe to do so.
 Store in a well ventilated place.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical name	CAS number	Proportion (vol %)
Oxygen, Compressed	7782-44-7	99.5%

4. FIRST-AID MEASURES

Health Effects (Chronic)

Long term exposure to oxygen has no known chronic health effects. Can be inhaled as a pure gas for several hours per day for periods of several days without observed harmful effects.

Health Effects (Acute)

Swallowed: Not applicable to gases.
Eyes: Not irritating to the eye.
Skin: Not irritating to the skin.
Inhaled: Breathing high concentrations of oxygen may cause symptoms of hyperoxia including cramps, nausea, dizziness, hypothermia, amblyopia, respiratory difficulties, bradycardia, fainting spells and convulsions capable of leading to death.

First-Aid	
Eye Contact:	Immediately flush eyes thoroughly with water for at least 15 minutes.
Skin Contact:	Remove contaminated clothing and shoes immediately - clothing frozen to skin should be thawed before removed. In case of frostbite, thaw with lukewarm water. obtain immediate medical assistance.
Inhalation:	Call doctor. Prompt medical attention is mandatory in all cases of overexposure to oxygen. If victim is unconscious: move to uncontaminated area and give assisted respiration. When normal breathing is restored, treat as above. Continued treatment should be symptomatic and supportive.
Advice to doctor:	Advise doctor that victim is experiencing (has experienced) hyperoxia.
General:	Rescue personnel should be aware of extreme fire hazard associated with oxygen rich atmospheres.
5. FIRE-FIGHTING MEASURES	
Flammability:	Oxygen is non-flammable, but vigorously supports combustion of many materials which will not normally burn in air. Store away from flammable products. Never smoke or carry out hot work in oxygen rich atmosphere. Never wear clothing saturated with oxygen.
Fire / Explosion Hazard:	Oxygen may rupture when heated. Move cylinders from fire if safe to do so. Cool cylinders with water from a protected location. If unable to keep cylinders cool, evacuate area.
Extinguishing Media:	Water fog or fine water spray. However this may not be appropriate for all fires as oxygen vigorously supports combustion and may be supporting the combustion of a material that is not suitable with this extinguishing media.
Hazchem Code:	2S
Recommended Protective:	Breathing apparatus need only be worn if the substance is involved in a fire. should be worn.
6. SPILLAGE, ACCIDENTAL RELEASE MEASURES	
Personal Protection:	Personnel engaged in the movement and use of cylinders should be provided with safety footwear and leather or PVC gloves. Full cover overalls and safety glasses recommended.
Spills and Disposal:	Ventilate area. Stop leak if it can be done without risk. Allow gas to dissipate to atmosphere.
Reference Guide:	Standard SNZ HB 76:2008 Dangerous Goods - Initial Emergency Response Guide.
General:	Only experienced and properly instructed personnel should handle compressed gases. Cylinder contents and identification labels provided by the supplier must not be removed or defaced. Colour coding should not be the only criterion used for content identification.

7. HANDLING AND STORAGE													
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Approved Handlers:	Approved handlers are required if more than 200m3 is stored on site.												
Storage													
Separation:	Storage of compressed gas cylinders shall be in compliance with New Zealand regulations. Cylinders shall be stored in a cool, dry, well ventilated area out of direct sunlight and away from heat and ignition sources. No part of cylinders shall be exposed to temperatures above 50 degrees Celsius. Avoid any contact with oil or grease particularly to the cylinder valve. Cylinders shall be stored upright on a level fireproof floor protected from damage. Full cylinders shall be stored separately from empties. Cylinders should be moved by hand-truck or cart designed for that purpose.												
Spills and Disposal:	Well ventilated area. Stop leak if it can be done without risk. Allow gas to dissipate to atmosphere.												
8. EXPOSURE CONTROLS AND PERSONAL PROTECTION													
Exposure Standards:	Not applicable to oxygen.												
Engineering Controls:	Ensure that ventilation of area where oxygen is being used is adequate to maintain the air-oxygen concentration at the normal 21%.												
Personal Protection:	Personnel engaged in the movement and use of cylinders should be provided with safety footwear and leather or PVC gloves. Full cover overalls and safety glasses recommended.												
9. PHYSICAL AND CHEMICAL PROPERTIES													
Physical Properties:	<table border="0"> <tr> <td>Appearance:</td> <td>Colourless, odourless, tasteless</td> </tr> <tr> <td>Boiling Point:</td> <td>-183 degrees Celsius</td> </tr> <tr> <td>Vapour Pressure:</td> <td>Not applicable</td> </tr> <tr> <td>Flashpoint:</td> <td>Non flammable</td> </tr> <tr> <td>Flammability Limits:</td> <td>Non flammable</td> </tr> <tr> <td>Solubility in Water:</td> <td>0.0489 m3/kg</td> </tr> </table>	Appearance:	Colourless, odourless, tasteless	Boiling Point:	-183 degrees Celsius	Vapour Pressure:	Not applicable	Flashpoint:	Non flammable	Flammability Limits:	Non flammable	Solubility in Water:	0.0489 m3/kg
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10. STABILITY AND REACTIVITY	
Flammability:	Non-flammable, but vigorously supports combustion of many materials which will not normally burn in air. Store away from flammable products. Never smoke or carry out hot work in an oxygen rich atmosphere. Never wear clothing saturated with oxygen.
Materials Compatibility:	Equipment to handle oxygen must be constructed of suited materials. Copper and stainless steel are most commonly used. Most lubricants are NOT compatible.
11. TOXICOLOGY INFORMATION	
No known toxicological effects from this product.	
12. ECOLOGICAL INFORMATION	
No ecological damage caused by this product.	
13. DISPOSAL CONSIDERATIONS	
To atmosphere in a well ventilated place. Do not discharge into any place where its accumulation could be dangerous.	
14. TRANSPORT INFORMATION	
UN Number:	1072
Proper Shipping Name:	OXYGEN, COMPRESSED
Dangerous Goods Class:	2.2 sub. 5.1
Packing Group:	Not applicable
Hazchem Code:	2S
Other Information:	<p>Avoid transport on vehicles where the load is not separated from the drivers compartment.</p> <p>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.</p> <p>Before transporting product containers:</p> <ul style="list-style-type: none"> • Ensure the containers are firmly secured. • Ensure cylinder valve is closed and not leaking. • Ensure there is adequate ventilation. • Comply with applicable regulations.
15. REGULATORY INFORMATION	
HSNO Controls:	<p>Hazardous Substances (Class 1 to 5 Controls) Regulations 2001.</p> <p>Hazardous Substances (Disposal) Regulations 2001.</p> <p>Hazardous Substances (Identification) Regulations 2001.</p> <p>Hazardous Substances (Personnel Qualifications) Regulations 2001.</p> <p>Hazardous Substances (Emergency Management) Regulations 2001.</p> <p>Hazardous Substances (Compressed Gases) Regulations 2004.</p> <p>Hazardous Substances (Tank Wagon and Transportable Containers) Regulations 2004.</p> <p>Schedule 12 of the Hazardous Substance (Dangerous Goods and Scheduled Toxic Substances) transfer notice 2004.</p>
Approved Handlers:	Approved handlers are required if more than 200 cubic meters is stored on site.

16. OTHER INFORMATION

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace in conjunction with other products.

Although details given in this document are believed to be correct at the time of printing they are not guaranteed. Whilst due and proper care has been taken in its preparation, no liability for loss, injury or damage incurred directly or indirectly from its use can be accepted.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Company:	Nitrogenx Ltd
Address:	15D Collard Place, Henderson, Auckland
Phone:	0800 22 33 85
Fax:	0800 22 33 91
Emergency 24hr:	0800 764 766