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MATERIAL SAFETY DATA SHEET

Product Name:

AIR, Compressed

Issued: September 2009

Revision: 10

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IDENTIFICATION

Chemical Name: Air
Synonyms: None
UN Number: 1002

Use: Air Sustains Life, Supports Combustion.

HAZARDS IDENTIFICATION

Dangerous Goods Class and Subsidiary Risk: 2.2
HSNO Classification: Not Hazardous

Hazard Statement: Contains gas under pressure; may explode if heated.

Precautionary Statements: Read label before use.
Read Safety Data Sheet before use.
Protect from sunlight and heat.
Store in a well-ventilated place.
Wear protective gloves and eye protection.

COMPOSITION

Ingredients	CAS Number	Proportion
Chemical Entity		
Oxygen	7782-44-7	21%
Nitrogen	7727-37-9	79%

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

FIRST AID MEASURES**Health Effects****Acute**

Swallowed: Not applicable to gases.
Eye: Not irritating to the eye.
Skin: Not irritating to the skin.
Inhaled: No hazard.

Chronic

No hazard.

First Aid

Inhalation: Not hazardous.

Skin Contact: No effect on living tissue.

Eye Contact : No effect on living tissue.

FIRE FIGHTING MEASURES**Flammability:**

Non Flammable.

Fire/Explosion Hazard:

Non-flammable, however exposure to fire may cause container to rupture/explode. Cylinders involved in a fire/explosion may rocket. Move cylinders from vicinity of fire if safe to do so. Cool cylinders by spraying flooding quantities of water from a protected location. If unable to keep cylinders cool, evacuate area, minimum distance 200 meters.

Extinguishing Media:

Use appropriate media to extinguish source of surrounding fire. Cool cylinders with water if possible.

Hazchem Code:

2 T

ACCIDENTAL RELEASE MEASURES**Personal Protection:**

Personnel engaged in the movement of cylinders shall be provided with safety footwear, safety glasses and leather or PVC gloves. Full cover overalls are recommended

Reference Guide:

Standard SNZ HB 76:2008 Dangerous Goods – Initial Emergency Response Guide.
AS/NZS 1337 – Eye Protection for Industrial Applications
AS/NZS 2161.1 – Occupational Protective Gloves – Selection, use and maintenance
AS/NZS 1715 – Selection, Use and Maintenance of Respiratory Protective Devices
AS/NZS 1716 – Respiratory Protective Devices

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.

HANDLING AND STORAGE**Handling****Flammability:**

Non Flammable.

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.

Approved Handlers:

Approved handlers are not required, non hazardous gas (HSNO).

Storage:

Storage of compressed gas cylinders shall be in compliance with New Zealand HSNO Regulations.

Cylinders will be kept away from ignition sources (including static discharges).

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°C.

Cylinders shall be stored upright on a level, fireproof floor, secured in position, and protected from damage.

Full cylinders shall be stored separately from empties.

Cylinders should be moved by hand-truck or cart designed for that purpose.

Separation:

Avoid any contact with oil or grease particularly to the cylinder valve.

Air can be stored with most common substances.

EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Standards:**

Not applicable to air.

Engineering Controls:

Equipment employed shall be designed to withstand process pressure and temperature.

Personal Protection:

Personnel engaged in the movement of cylinders shall be provided with safety footwear, safety glasses and leather or PVC gloves. Full cover overalls are recommended.

Reference Guide:

AS/NZS 1337 – Eye Protection for Industrial Applications

AS/NZS 2161.1 – Occupational Protective Gloves – Selection, use and maintenance

AS/NZS 1715 – Selection, Use and Maintenance of Respiratory Protective Devices

AS/NZS 1716 – Respiratory Protective Devices

PHYSICAL AND CHEMICAL PROPERTIES**Physical Properties**

Appearance:	Colourless, Odourless, Tasteless	Flashpoint:	Non Flammable
Boiling Point:	Not Applicable	Flammability Limits:	Non Flammable
Vapour Pressure:	Not Applicable	Solubility in Water (at 0°C):	0.0292 vol/vol

Other Properties

Relative Density (Air = 1):	1.00	Density of Gas (101.3 kPa, 15°C):	1.202 kg/m ³
Molecular Weight:	28.95	Critical Temperature:	-140.5 °C

STABILITY AND REACTIVITY**Flammability:**

Air is non- flammable but supports combustion of common combustible materials.

Materials Compatibility:

Not applicable.

TOXICOLOGY INFORMATION

Stable under normal conditions.

ECOLOGICAL INFORMATION

No known toxicological effects from this product.

DISPOSAL CONSIDERATIONS

No known ecological damage caused by this product.

TRANSPORT INFORMATION

UN Number:	1002
Proper Shipping Name:	AIR, COMPRESSED
Dangerous Goods Class and Subsidiary Risk:	2.2
Packing Group:	Not applicable
Hazchem Code:	2 T

Other Information: Avoid transport on vehicles where the load 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 there is adequate ventilation.
- Compliance with applicable regulations.

REGULATORY INFORMATION

ERMA Register Approval No: HSR001458

HSNO Controls: Hazardous Substances (Compressed Gases) Regulations 2004.
Hazardous Substances (Tank Wagon and Transportable Containers) Regulations 2004.

Approved Handlers: Approved handlers are not required, non hazardous gas (HSNO).

OTHER INFORMATION

Compressed Air is supplied in high pressure cylinders.

Cylinder Colour: Industrial: AS 4484-2004 Pewter PMS 431U/Black
Medical: AS 4484-2004 Green Grey N32
Black & White Shoulder Quadrants

Cylinder Valve Outlet: Industrial: AS 2473.2 Type 60 or alternatively AS 2473.2 Type 33
Medical: AS 2473.3 Fig. 17

- References:**
- . L'Air Liquide Gaz Encyclopaedia - Elsevier Scientific Publishing Co. Amsterdam
 - . NZS 5433:2007 Transport of Dangerous Goods on Land
 - . ERMA Website – Approvals Register – www.erma.govt.nz
 - . SNZ HB76:2008 Dangerous Goods – Initial Emergency Response Guide
 - . ISO 10156 Gases and Gas mixtures – Determination of Fire Potential and Oxidising Ability for the Selection of Cylinder Valve Outlets
 - . Air Liquide Australia "Air" MSDS June 2008
 - . AS1678 2C1 Emergency Procedure Guide – Transport – Non-Flammable, Compressed Gas
 - . AS 4484-2004 - Gas Cylinders for Industrial, Scientific, medical and refrigerant use - labelling and colour coding
 - . AS 2473.2-2007 - Valves for compressed gas outlets - Part 2 Outlet connections (threaded) and stem (inlet) threads
 - . AS 2473.3-2007 - Valves for compressed gas outlets - Part 3 Outlet connections for medical gases (including pin-indexed yoke connections)
 - . Air Liquide New Zealand Document - DOPM-Z-TECH-0060 Cylinder Reference Manual for Cylinder Identification
 - . CGA Safety bulletin SB2-2007 Oxygen Deficiency
 - . Operators Handbook for the Transport of Dangerous Goods by Road – NZ Road Transport & Logistics Industry Training Organisation
 - . ALNZ - Transport of Gas cylinders in Non-Dedicated Vehicles Customer Information Guide
 - . NZCIC Code of Practice – Preparation of Safety Data Sheets

END MSDS

This MSDS summarises to our best knowledge, at the date of issue, the health and safety hazard information regarding this product and general guidance on how to safely handle the product in the workplace. All due care has been taken to include accurate and up-to-date information in this MSDS.

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. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Air Liquide New Zealand.

As far as lawfully possible, no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS can be accepted.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is available on request.

This MSDS has been prepared in accordance with NZCIC Code of Practice – Preparation of Safety Data Sheets.

This MSDS is subject to change without notice. For the latest version of this MSDS visit <http://www.airliquide.com.au/en/technical/new-zealand-msds.html>

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