

MATERIAL SAFETY DATA

SHEET Revised edition no : 1

Date : 31/01/2010

Supersedes : 0 / 0 / 0

Oxygen AL605

O : Oxidizing Label 2.2 : Non Label 5.1 : Oxidizing

flammable, non toxic gas. substances.

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

Trade name : Oxygen

MSDS Nr : AL605

Use : Welding and cutting of metals. Medical applications. Industrial applications.

Combustion aid.

Chemical formula : O₂

Company identification : Agas National
PO BOX 1087

Sunnybank Hills, 4109, QLD

Emergency phone number : 07 3103 0667

2 HAZARDS IDENTIFICATION

Hazard classification : Classified as hazardous

according to NOHSC criteria.

Classified as a dangerous good by the criteria of the ADG code.

Hazards identification : Compressed gas.

Oxidant. Strongly supports combustion. May react violently with combustible materials.

R Phrase(s) : R8 : Contact with combustible material may cause fire.

S Phrase(s) : S17 : Keep away from combustible material.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Preparation : Substance.

Substance name Contents CAS No EC No Annex No Classification

Oxygen : 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

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 : None. fighters

6 ACCIDENTAL RELEASE MEASURES

Personal precautions : Evacuate area.

Ensure adequate air ventilation.

Eliminate ignition sources.

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°C in a well ventilated place.

Handling : Use no oil or grease.

Open valve 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 discharges).

Refer to supplier's container handling instructions.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection : Do not smoke while handling product.

Wear suitable hand, body and head protection. Wear goggles with suitable filter

lenses when use is cutting/welding.

Avoid oxygen rich (>21%) atmospheres.

Ensure adequate ventilation.

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9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state at 20 °C : Gas.

Colour : Colourless gas.

Odour : No odour warning properties.

Molecular weight : 32

Melting point [°C] : -219

Boiling point [°C] : -183

Critical temperature [°C] : -118

Vapour pressure [20°C] : Not applicable.

Relative density, gas (air=1) : 1.1

Relative density, liquid (water=1) : 1.1

Solubility in water [mg/l] : 39

Flammability range [vol% in air] : Oxidiser.

Auto-ignition temperature [°C] : Not applicable.

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

10 STABILITY AND REACTIVITY

Hazardous decomposition products : None.

Materials to avoid : May react violently with combustible materials.

May react violently with reducing agents.

Violently oxidises organic material.

Keep equipment free from oil and grease.

Conditions to avoid : Consider the potential toxicity hazard due to the presence of chlorinated or fluorinated polymers in high pressure (> 30 bars) oxygen lines in case of combustion

11 TOXICOLOGICAL INFORMATION

Toxicity information : No known toxicological effects from this product.

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

• **Labelling ADG, IMDG, IATA**

: Label 5.1 : Oxidizing substances.

Label 2.2 : Non flammable, non toxic gas.

Land transport

H.I. nr : 25

Proper shipping name : OXYGEN, COMPRESSED

HAZCHEM - Emergency Action Code : 2S

: 2 = *Fine water spray.*

S = Risk of violent reaction or explosion. Recommended personal protective equipment : Full fire

kit and breathing apparatus. Appropriate measures : dilute.

- **ADG Class** : 2

- **ADG Classification code** : 1 O

- **Packing Instruction(s) - General** : P200

Sea transport

- **IMO-IMDG code**

• **Proper shipping name** : OXYGEN, COMPRESSED

• **Class** : 2.2

- **IMO Packing group** : P200

- **Emergency Schedule (EmS) - Fire** : F-C

- **Emergency Schedule (EmS) -** : S-W

Spillage

- **Instructions - Packing** : P200

Air transport

- **ICAO/IATA**

- **Proper shipping name** : OXYGEN, COMPRESSED

• **Class** : 2.2

• **Passenger and Cargo Aircraft** : Allowed.

- **Packing instruction** : 200

• **Cargo Aircraft only** : Allowed.

- **Packing instruction** : 200

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 :

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14 TRANSPORT INFORMATION (continued)

- 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.
- Compliance with applicable regulations.

15 REGULATORY INFORMATION

EC Classification : Annex No : 008-001-00-8

O; R8

EC Labelling

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

Ensure all national/local regulations are observed.

Ensure 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.

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

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