

# Liquid Synthetic Air

MSDS : 599-00-0005 BOC VERSION :2 DATE : 09 / 08 /1996 PAGE : 1/1

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

<b>Product name</b>	Liquid Air
<b>Chemical formula</b>	Mixture containing O <sub>2</sub> and N <sub>2</sub>
<b>Company identification</b>	see heading and/or footer
<b>Emergency phone Nos</b>	see heading and/or footer

## 2 COMPOSITION/INFORMATION ON INGREDIENTS

<b>Substance/ Preparation</b>	Preparation
<b>Components/ Impurities</b>	Contains no other components or impurities which will influence the classification of the product.

## 3 HAZARDS IDENTIFICATION

<b>Hazards identification</b>	Refrigerated liquefied gas. Contact with product may cause cold burns or frostbite. Will support combustion. Contents of container may become oxygen enriched over time if allowed to stand unused.
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## 4 FIRST AID MEASURES

<b>Skin/eye contact</b>	Immediately flush eyes thoroughly with water for at least 15 minutes. In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.
<b>Ingestion</b>	Ingestion is not considered a potential route of exposure.

## 5 FIRE FIGHTING MEASURES

<b>Specific hazards</b>	Exposure to fire may cause containers to rupture/explode. Non flammable but may react with combustible substances creating fire or explosion hazard.
<b>Hazardous combustion products</b>	None
<b>Suitable extinguishing media</b>	All known extinguishants can be used.
<b>Specific methods</b>	If possible, stop flow of product. Move container away or cool with water from a protected position.
<b>Special protective equipment for fire fighters</b>	None

## 6 ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Avoid contact with liquid or cold gas. In case of release, contact supplier.
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## 7 HANDLING AND STORAGE

<b>Handling and storage</b>	Back feed of water or other materials into the container must be prevented. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Refer to supplier's container handling instructions. Keep container below 50°C.
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## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Exposure limit value</b>	None
<b>Personal protection</b>	Protect eyes, face and skin from liquid splashes.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Molecular weight</b>	28.96 g/mol
<b>Melting point</b>	-216.2°C
<b>Boiling point</b>	-194.35°C
<b>Critical temperature</b>	-141.65°C
<b>Relative density, gas</b>	1 (1.21 Kg/m <sup>3</sup> )
<b>Relative density, liquid</b>	870 Kg/m <sup>3</sup>
<b>Solubility l/l water</b>	0.0292
<b>Appearance/Colour</b>	Colourless liquid
<b>Odour</b>	No odour warning properties

## 10 STABILITY AND REACTIVITY

<b>Stability and reactivity</b>	Stable under normal conditions. Liquid spillages can cause embrittlement of structural materials. May react with combustible substances creating fire or explosion hazard.
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## 11 TOXICOLOGICAL INFORMATION

<b>General</b>	None
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## 12 ECOLOGICAL INFORMATION

<b>General</b>	None
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## 13 DISPOSAL CONSIDERATIONS

<b>General</b>	May react with combustible substances creating fire or explosion hazard. Contact supplier if guidance is required or if tank relief valve pressure is reached.
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#### 14 TRANSPORT INFORMATION

**UN Nr** 1003  
**Class/Div** 2  
**ADR/RID Item Nr** 8a  
**Labelling ADR** Label 2: non flammable non toxic gas

**Other transport information** 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 they are firmly secured and:  
 - adequate ventilation.  
 - compliance with applicable regulations.

#### 15 REGULATORY INFORMATION

**Number in Annex I of Dir 67/548** Not included in Annex 1.

**EC Classification** Proposed by the industry  
 Not classified as dangerous substance.

#### Labelling of cylinders

**- Symbols** Label 2: non flammable non toxic gas.  
**- Risk phrases** RfB May cause frostbite.  
**- Safety phrases** S36 Use suitable protective clothing.

#### 16 OTHER INFORMATION

Ensure all national/local regulations are observed.  
 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.

#### 17 PRODUCT SPECIFICATION

	Specification	Typical Analysis
<b>Nitrogen</b>	79%	83-77%
<b>Oxygen</b>	21%	17-23%
<b>Moisture</b>	<2 vpm	<1 vpm
<b>Carbon Dioxide</b>		<2 vpm
<b>Hydrocarbons</b>		8-40 vpm
<b>Carbon Monoxide</b>		<1 vpm
<b>Nitrous Oxide</b>		<0.1 vpm
<b>Acetylene</b>		<0.05 vpm
<b>Argon</b>		<0.3%



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For product and safety enquiries please phone

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