



# SAFETY DATA SHEET

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Revised edition no : 1

Date : 30 / 6 / 2009

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**ALLENIX****2009308**

O : Oxidizing



Label 2.2 : Non flammable, non toxic gas.



Label 5.1 : Oxidizing substances.

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

**Trade name** : ALLENIX  
**MSDS Nr** : 2009308  
**Company identification** : SINGAPORE OXYGEN AIR LIQUIDE PTE LTD  
HEAD OFFICE : NO. 16 JALAN BUROH S619475  
SPECIAL GASES OFFICE : NO 24 JALAN BUROH S619480  
SINGAPORE  
**Emergency phone nr** : +65 6265 3788

## 2 COMPOSITION / INFORMATION ON INGREDIENTS

**Substance / Preparation** : Preparation.  
**Components** : This product is hazardous.

Substance name	Contents	CAS No	EC No	Index No	Classification
Oxygen	: 50 %	7782-44-7	231-956-9	008-001-00-8	O; R8
Nitrous oxide	: 50 %	10024-97-2	233-032-0	-----	O; R8

## 3 HAZARDS IDENTIFICATION

**Hazards identification** : Oxidant. Strongly supports combustion. May react violently with combustible materials.  
Liquefied gas.

## 4 FIRST AID MEASURES

- **Inhalation** : In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.  
In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.  
- **Ingestion** : Ingestion is not considered a potential route of exposure.

## 5 FIRE-FIGHTING MEASURES

**Flammable class** : Non flammable.  
**Specific hazards** : Supports combustion.  
Exposure to fire may cause containers to rupture/explode.  
**Hazardous combustion products** : If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition :  
Nitric oxide/nitrogen dioxide.  
**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 fighters** : Use self-contained breathing apparatus and chemically protective clothing.



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## 6 ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.  
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

- Personal protection** : Protect eyes, face and skin from liquid splashes.
- 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.  
Keep away from ignition sources (including static discharges).  
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.  
Refer to supplier's container handling instructions.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

- Personal protection** : Do not smoke while handling product.  
Ensure adequate ventilation.
- Occupational Exposure Limits** : Nitrous oxide : TLV© -TWA [ppm] : 50  
Nitrous oxide : OEL (UK)-LTEL [ppm] : 100  
Nitrous oxide : MAK - Germany [ppm] : 100

## 9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical state at 20 °C** : Liquefied gas.
- Colour** : Colourless gas.
- Odour** : Sweetish.  
Poor warning properties at high concentrations.
- Relative density, gas (air=1)** : Heavier than air.
- Solubility in water [mg/l]** : No data available.
- Flammability range [vol% in air]** : Oxidiser.
- Other data** : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

## 10 STABILITY AND REACTIVITY

- Stability and reactivity** : Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.  
May react violently with combustible materials.  
May react violently with reducing agents.  
Violently oxidises organic material.



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## 11 TOXICOLOGICAL INFORMATION

**Toxicity information** : No known toxicological effects from this product.

## 12 ECOLOGICAL INFORMATION

**Ecological effects information** : No known ecological damage caused by this product.  
**Environmental precautions** : Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.  
**Effect on ozone layer** : None.  
**Global warming factor [CO<sub>2</sub>=1]** : 310

## 13 DISPOSAL CONSIDERATIONS

**General** : Discharge to atmosphere in large quantities should be avoided.  
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.  
**Disposal method** : Consult supplier for specific recommendations.

## 14 TRANSPORT INFORMATION

**UN No.** : 3157  
**H.I. nr** : 25  
**ADR/RID**  
**Proper shipping name** : LIQUEFIED GAS, OXIDIZING, N.O.S. (Oxygen, Nitrous oxide)  
**- ADR Class** : 2  
**- ADR/RID Classification code** : 2 O  
**Labelling ADR** : 2.2  
5.1  
**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 :  
- 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** : 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

Receptacle under pressure.  
Ensure all national/local regulations are observed.



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## 16 OTHER INFORMATION (continued)

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.

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.

The contents and format of this SDS are in accordance with EEC Commission Directive 2001/58EC.

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

### ADDITIONAL NOTES TO CUSTOMER

Note 1 : The Customer shall be responsible for obtaining consents and for complying with all legal obligations including the Factories Act, in connection with the Product at the Customer's site.

Note 2 : The Customer is responsible for any risk or safety from the Product supplied in his possession.

Note 3 : The Customer must ensure that persons handling the Product are qualified personnel who have received adequate training and these persons understand all precautions to be taken.

Note 4 : The Customer shall indemnify SOXAL against all claims arising from non-compliance with any said obligation and against all costs and expenses arising from any such claims.

**End of document**