1. Identification of the substance/mixture and Of the Company

Product Name: Nitrous Oxide (50%); Oxygen (50%), compressed
Chemical formula: N_2O; O_2
UN Number: UN 3156-Compressed gas, oxidizing
Uses: Industrial applications
Company Identification: Gaz Carbonique Ltée
Lot 1, Ground Floor, Le Hub,
DBM Industrial Zone, Phoenix
Mauritius - Indian Ocean
Tel: (230) 603 2992
Fax: (230) 696 5973
Email: contact@gazcarbo.mu

Emergency Contact Person: Mr. Arnaud Rougier Lagane
Chief Operating Manager

2. Hazards Identification

Classification of the substance or mixture:
H280 - Contains gas under pressure; may explode if heated
H270 - May cause or intensify fire; oxidizer

Label Elements
Hazard Pictograms:

Signal word: Danger

3. Composition/Information on Ingredients

Substance/Preparation: Substance
Components/Impurities:

- **O2 (50%)**

CAS NO. : 07782-44-7
EEC No: 231-956-9

- **N20 (50%)**

CAS No. : 10024-97-2
EEC No. : 233-032-0

4. First Aid measures

Inhalation: Continuous Inhalation of concentrations may cause nausea, dizziness, respiratory difficulty and convulsion. Remove victim to uncontaminated area. Keep victim warm and rested. Call a doctor.

Ingestion: Ingestion is not considered a potential route of exposure.

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5. Fire Fighting Measures

Extinguishing media: All known extinguishing media can be used

Specific Hazards: Supports combustion. Exposure to fire may cause containers to rupture/explode. Non-flammable.

Hazardous combustion products: If involved in a fire, the following toxic and/or corrosive fumes may be produced by thermal decomposition. Nitrogen dioxide, Nitric Oxide.

Advice for fire-fighters

Specific methods: If possible, stop flow of product.
Move container away from the fire area if this can be done without risk.
Cool with water from a protected position.

Special protective equipment: In confined space, use self-contained breathing apparatus.

6. Accidental Release Measures

Personal precautions: Evacuate area.
Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. Ensure adequate air ventilation.
Eliminate any source of ignition.

Environmental precautions: Try to stop release. Prevent from entering sewers, basements and work pits, or any place where its accumulation can be dangerous.

Clean up methods: Ventilate area.

7. Handling and Storage

Precaution for safe handling

Safe use of the product: Do not use oil or grease. Open valve slowly to avoid pressure shock.
Only experienced and properly instructed persons should handle gases under pressure.
Suck back of water into the container must be prevented.
Do not allow back feed 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.

Storage: Keep container below 50◦C in a well-ventilated place.
Observe all regulations and local requirements regarding storage of containers.
Containers should not be stored in conditions likely to encourage corrosion.
Container valve guards or caps should be in place.
Containers should be stored in the vertical position and properly secured to prevent them from falling over.
Stored containers should be periodically checked for general condition and leakage.
Store containers in location free from flammable gases and other flammable materials in store. Keep away from sources of ignition.

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8. Exposure Controls/personal protection

Exposure controls

Appropriate engineering control: Provide adequate general and local exhaust ventilation.
Systems under pressure should be regularly checked for leakages
Avoid oxygen rich (>23%) atmospheres.

Personal protection

Personal protective equipment: A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk. The following recommendations should be considered:
Wearing of working gloves and safety shoes while handling gas cylinders.

Environmental exposure controls: None.

9. Physical and Chemical Properties

General Information
Appearance:
Physical state at 20◦C / 101.3kPa: Gas
Colour: Colourless
Odour: No odour warning properties.

OXYGEN (O2)
Molecular Weight: 32 g/mol
Melting point: -219◦C
Boiling point: -183◦C
Critical temperature: -118◦C
Auto-ignition temperature: Not applicable
Flammability range: Oxidizer
Relative density, gas (air=1): 1.1
Solubility in water: 39 mg/l

NITROUS OXIDE (N2O)
Molecular weight: 44 g/mol
Melting point: -90.81◦C
Boiling point: -88.5◦C
Critical temperature: 36.4◦C
Auto-ignition temperature: Not applicable
Flammability range: Oxidizer
Relative density, gas (air=1): 1.4
Solubility in water: 2.2 mg/l

10. Stability and Reactivity

May react violently with combustible materials and with reducing agents. Violently oxidises organic material

11. Toxicological Information

No known toxicological effects from this product.

12. Ecological Information

No known ecological damage caused by this product.

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13. Disposal Information

General

May be vented to atmosphere in a well-ventilated place.
Do not discharge into any place where its accumulation could be dangerous.
Ensure that the emission levels from local regulations or operating permits are not exceeded.
Contact supplier if guidance is required.

14. Transport Information.

UN Number: 3156
UN proper shipping name: COMPRESSED GAS, OXIDIZING
Labelling:

2.2: Non-flammable, non-toxic gases.

5.1: Oxidizing substances

Land Transport (ADR/RID)
Hazard number: 25
Class: 2.2
Air Transport (IATA)
Class / Div. (Sub.risk(s)): 2.2
Sea Transport (IMDG)
Class / Div. (Sub.risk(s)): 2.2

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 they are firmly secured.
- Ensure adequate ventilation
- 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 compliance with applicable regulations.
-

15. Regulatory Information

Ensure all national/local regulations are observed.

16. Other Information

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. Details given in this document are believed to be correct at the time going to press. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. This MSDS was prepared and is to be used only for this product.

End of document.

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