



Safety Data Sheet

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ALIGAL™ 13

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Commercial name	ALIGAL 13
Product name	Carbon Dioxide in Nitrogen
Chemical name/formula	CO ₂ in N ₂
Company identification	See header and footer
Emergency phone no.	See footer

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Preparation	Substance
Components/Impurities	Carbon Dioxide: 15 – 40% Nitrogen: 60 – 85%.
CAS No.	124-39-9 Carbon Dioxide 7727-37-9 Nitrogen

3. HAZARDS IDENTIFICATION

General	<ul style="list-style-type: none">Non-flammable compressed gas.In high concentrations may cause asphyxiation.
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4. FIRST-AID MEASURES

Inhalation	<ul style="list-style-type: none">In high concentrations may cause asphyxiation. Symptoms may include loss of mobility or consciousness. Victim may not be aware of asphyxiation.Remove victim to uncontaminated area wearing self-contained breathing apparatus.Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
Skin/Eye contact	<ul style="list-style-type: none">No adverse effects anticipated.
Ingestion	<ul style="list-style-type: none">Ingestion is not considered a potential route of exposure.

5. FIRE-FIGHTING MEASURES

Specific hazards	<ul style="list-style-type: none">Exposure to fire may cause containers to rupture or explode.
Hazardous combustion products	<ul style="list-style-type: none">None.
Suitable extinguishing media	<ul style="list-style-type: none">All known extinguishants can be used.
Specific methods	<ul style="list-style-type: none">If possible, stop flow of product.Move container away or cool with water from a protected position.
Special protective equipment (for fire fighters)	<ul style="list-style-type: none">In confined space, use a self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	<ul style="list-style-type: none">Evacuate area.Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.Ensure adequate air ventilation.
Environmental precautions	<ul style="list-style-type: none">Try to stop release.
Clean up methods	<ul style="list-style-type: none">Ventilate area.

7. HANDLING & STORAGE

General	<ul style="list-style-type: none">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.Keep container below 50°C in a well-ventilated place.Refer to SOXAL's booklet on "safe handling, transport and storage of compressed gas cylinder" or contact SOXAL if in doubt.
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8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure limit value	<ul style="list-style-type: none">Carbon Dioxide 5,000 ppm PEL Short Term & 30,000 ppm PEL Long Term
Personal protection	<ul style="list-style-type: none">Ensure adequate ventilation.

9. PHYSICAL & CHEMICAL PROPERTIES

Molecular weight	Not Applicable
Melting point	- 210°C (Nitrogen)
Boiling point	Not Applicable
Critical temperature	- 147°C (Nitrogen)
Relative density, gas	1.09 (air = 1)
Relative density, liquid	Not applicable
Vapour pressure @ 20°C	Not applicable
Solubility mg/l water	Partially soluble
Appearance/Colour	Colourless gas
Odour	No odour warning properties
Auto-ignition temperature	Not applicable
Flammability range	Not flammable

10. STABILITY & REACTIVITY

General	<ul style="list-style-type: none">Stable under normal conditions.
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11. TOXICOLOGICAL INFORMATION

General	<ul style="list-style-type: none">No known toxicological effects from this product.
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For product and/or safety enquiry, please send, call, fax or log on to:

SINGAPORE OXYGEN AIR LIQUIDE PTE LTD
16, Jalan Buroh, Singapore 619475.

Tel: (65) 6265 3788 or 6265 4555 Fax: (65) 6265 1441 or 6268 8403 Website: www.soxal.com Business Registration No: 197001157D

ALIGAL™ 13

12. ECOLOGICAL INFORMATION

General

- No known ecological effects from this product.

13. DISPOSAL CONSIDERATIONS

General

- Do not discharge into any place where its accumulation could be dangerous.
- Vent to atmosphere in a well ventilated place.
- Contact SOXAL if guidance is required.

14. TRANSPORT INFORMATION

UN No. 1956
Class/Division 2.2 (Non-Flammable Gas)
Subsidiary risk None
UN proper shipping name Compressed Gas N.O.S (Carbon Dioxide in Nitrogen)
IMO/IATA shipping label



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 and:
 - compliance with applicable regulations;
 - cylinder valve is closed and not leaking;
 - valve outlet cap nut or plug (where provided) is correctly fitted;
 - valve protection device (where provided) is correctly fitted; and
 - there is adequate ventilation.

15. REGULATORY INFORMATION

General

- Singapore's WSH (General Provisions) Regulations 2006, Sections 42 & 43.
- Singapore Standards:
 - CP 12:2000 Part 1
 - CP 98:2003
 - SS 152:2003
 - SS 286:1984 Part 1 to Part 5

Risk and safety phrases

- S09 - Keep container in a well ventilated place
- S51 - Use only in well ventilated area.

16. OTHER INFORMATION

General

- Ensure all local regulations or legislations are observed.
- Asphyxiant in high concentrations. Keep container in a well-ventilated place. Do not breathe gas.
- The hazard of asphyxiation is often overlooked and must be stressed before use.
- Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

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