SAFETY DATA SHEET (SDS)

70/30 Mixed Gas Cylinder

Composition: 70% Nitrogen / 30% Carbon Dioxide

Section 1: Identification

Product Name: 70/30 Mixed Gas

Gas Composition: 70% Nitrogen / 30% Carbon Dioxide

Recommended Use: Modified atmosphere packaging, food processing, beverage applications, laboratory use, industrial blanketing and purging.

Restrictions on Use: For industrial and food-process use only unless specifically supplied for medical or breathing applications.

Supplier Information:

- Company Name: The Beer & Gas Man Limited
- Address: Wood Farm Coal Pit Lane, Willey, CV23 0SL
- Telephone: 01455 710333
- Emergency Contact Number: 07966149465

Section 2: Hazard Identification

Classification

- Gas under pressure – Compressed gas
- Simple asphyxiant

Signal Word

WARNING

Hazard Statements

- Contains gas under pressure; may explode if heated.
- May displace oxygen and cause suffocation.
- High concentrations of carbon dioxide may cause headache, dizziness, rapid breathing, unconsciousness, or death.
- Rapid release of compressed gas may cause frostbite or cold burns.

Precautionary Statements

- Store in a well-ventilated place.
- Protect from sunlight.
- Use only with approved pressure regulators.
- Avoid breathing gas.
- Use suitable ventilation and atmospheric monitoring in confined spaces.

Section 3: Composition / Information on Ingredients

Component	CAS Number	Concentration
Nitrogen	7727-37-9	70%
Carbon Dioxide	124-38-9	30%

Section 4: First Aid Measures

Inhalation

Move affected person to fresh air immediately. Keep warm and at rest. If breathing is difficult, oxygen may be administered by trained personnel. Seek immediate medical attention.

Skin Contact

Rapid gas expansion may cause frostbite or cold burns. Flush affected area with lukewarm water. Do not rub the affected area.

Eye Contact

Flush eyes carefully with lukewarm water for at least 15 minutes. Seek medical attention.

Ingestion

Not considered a likely route of exposure.

Most Important Symptoms

- Headache
- Dizziness
- Shortness of breath
- Rapid breathing
- Confusion
- Unconsciousness
- Asphyxiation

Section 5: Fire Fighting Measures

Suitable Extinguishing Media

Use extinguishing media suitable for the surrounding fire.

Specific Hazards

- Cylinders may rupture if exposed to fire or excessive heat.
- Heated cylinders may build pressure rapidly.

Protective Equipment for Firefighters

Wear self-contained breathing apparatus (SCBA) and full protective clothing.

Firefighting Instructions

Cool cylinders with water spray from a safe distance.

Section 6: Accidental Release Measures

Personal Precautions

- Evacuate area.
- Ensure adequate ventilation.
- Avoid confined spaces.
- Monitor oxygen and carbon dioxide concentrations where required.

Methods for Cleanup

Stop leak if safe to do so. Ventilate area until gas has dispersed.

Section 7: Handling and Storage

Handling

- Secure cylinders upright.
- Use approved regulators and fittings only.
- Open valves slowly.
- Do not drag, drop, or strike cylinders.
- Keep valves closed when not in use.

Storage

- Store in cool, dry, well-ventilated areas.
- Keep away from heat and direct sunlight.
- Store below 50°C (122°F).
- Protect cylinders from physical damage.

Section 8: Exposure Controls / Personal Protection

Occupational Exposure Limits

Substance	Exposure Limit
Nitrogen	Simple asphyxiant
Carbon Dioxide	5,000 ppm TWA
Carbon Dioxide	15,000 ppm STEL

Engineering Controls

Provide adequate ventilation. Oxygen and carbon dioxide monitoring is recommended in enclosed areas.

Personal Protective Equipment

- Safety glasses or goggles
- Protective gloves
- Safety footwear
- Respiratory protection if ventilation is inadequate

Section 9: Physical and Chemical Properties

Property	Value
Appearance	Colorless gas
Odor	Odorless
Physical State	Compressed gas
Flammability	Non-flammable
Relative Density	Heavier than air under some conditions
Solubility in Water	Carbon dioxide soluble; nitrogen slightly soluble

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Section 10: Stability and Reactivity

Chemical Stability

Stable under recommended storage conditions.

Conditions to Avoid

- Excessive heat
- Physical damage to cylinders
- Poor ventilation

Hazardous Decomposition Products

None expected under normal conditions.

Section 11: Toxicological Information

Acute Effects

Primary hazard is oxygen displacement leading to asphyxiation. Elevated carbon dioxide concentrations may cause headache, dizziness, increased breathing rate, unconsciousness, or death.

Chronic Effects

No known significant chronic effects under normal use.

Section 12: Ecological Information

No known significant environmental effects from normal use.

Section 13: Disposal Considerations

Do not puncture or incinerate cylinders.

Return cylinders to supplier where possible.

Dispose of according to local regulations.

Section 14: Transport Information

Transport Mode	UN Number	Proper Shipping Name	Hazard Class
ADR/RID	UN1956	Compressed gas, n.o.s.	2.2
IMDG	UN1956	Compressed gas, n.o.s.	2.2
IATA	UN1956	Compressed gas, n.o.s.	2.2

Transport Label

Non-flammable gas.

Section 15: Regulatory Information

Handle in accordance with applicable workplace safety, compressed gas, and transport regulations.

Applicable regulations may include:

- COSHH Regulations
- Pressure Systems Safety Regulations
- ADR transport requirements

Section 16: Other Information

Preparation Date

Revision Number

Prepared By

Disclaimer

This SDS is provided as general guidance for a 70% nitrogen / 30% carbon dioxide compressed gas mixture. Users must verify suitability for their application and comply with local regulations.

Cylinder Safety Checklist

- Confirm gas identity before use.
- Secure cylinder upright.
- Inspect regulators and hoses before use.
- Use only in well-ventilated areas.
- Keep away from heat and ignition sources.
- Close valve when not in use.
- Return damaged cylinders to supplier.