

PUMPGAS

Product: Nitrogen MSDS Nr. 300-00-0033



Gas safety data sheet

1. Identification of the substance/preparation and of the company

Product name	Nitrogen
Chemical formula	N ₂
Company identification	BOC, Priestley Road, Worsley, Manchester M28 2UT
Emergency phone number	08457 302 302

2. Composition/information on ingredients

Substance/preparation	Substance.
Components/impurities	Contains no other components or impurities which will influence the classification of the product.
CAS Nr	07727-37-9
EEC Nr (from EINECS)	2317839

3. Hazards identification

Hazards identification	Compressed gas. In high concentrations may cause asphyxiation.
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4. First aid measures

Inhalation	In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/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 stops.
Ingestion	Ingestion is not considered a potential route of exposure.

5. Fire fighting measures

Specific hazards	Exposure to fire may cause cylinders to rupture/explode. Non-flammable.
Hazardous combustion products	None.
Suitable extinguishing media	All known extinguishants can be used.
Specific methods	If possible, stop flow of product if safe to do so. Move cylinder away or cool with water from a protected position.
Special protective equipment for fire fighters	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 proved to be safe. Ensure adequate air ventilation.
Environmental precautions	Try to stop release.
Clean up methods	Ventilate area.

7. Handling and storage

Handling and storage	Cylinders should be secure when stored or in use. Only use cylinders when in an upright position. Suck back of water into the cylinder must be prevented. Do not allow backfeed into the cylinder. When cylinder valves have been exposed to flooding in cellars, the cylinder must not be used and BOC notified for collection. Do not store cylinders adjacent to direct heat sources or within sealed rooms where ambient heat may build up. Keep cylinder below 50°C. Store in a well ventilated place, and if this is not possible conduct a confined space risk assessment. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Only open the cylinder valve when connected to equipment. Open and close valve slowly. Close cylinder valve when not in use.
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8. Exposure controls/personal protection

Personal protection	Ensure adequate ventilation.
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9. Physical and chemical properties

Molecular weight	28
Melting point	-210°C
Boiling point	-196°C
Critical temperature	-147°C
Relative density, gas	0.97 (air=1)
Relative density, liquid	Not applicable.
Vapour pressure 20°C	Not applicable.
Solubility mg/l water	20 mg/l
Appearance/colour	Colourless gas.
Odour	No odour warning properties.

10. Stability and reactivity

Stability and reactivity Stable under normal conditions.

11. Toxicological information

General No known toxicological effects from this product.

12. Ecological information

General No known ecological damage caused by this product.

13. Disposal considerations

General Discharge to atmosphere in a well ventilated place. Do not discharge into any place where the gas may accumulate. Contact BOC Gases if guidance is required.

14. Transport information

UN Number 1066
Class/Div 2.2
ADR/RID Classification Code 1A
ADR/RID Hazard Nr 20
Labelling ADR Label 2.2: non-flammable, non-toxic gas.
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 (see 6. Accidental release measures). Before transporting cylinders ensure that they are firmly secured and:

- cylinder valve is closed and not leaking
- valve guard is correctly fitted
- there is adequate ventilation
- compliance with applicable regulations.

15. Regulatory information

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

EC Classification Not classified as a dangerous substance.

Labelling of cylinders

- Symbols Label 2.2: non-flammable non toxic gas.

16. Other information

Ensure all national/local regulations are observed.

Asphyxiant in high concentrations.

Keep container in well ventilated place.

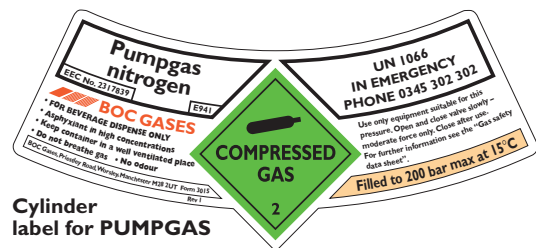
Do not breathe the gas.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

Users of breathing apparatus must be trained.

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.



Cylinder label for PUMPGAS

Reference chart

Cylinder size	Nominal contents (m ³)	Maximum filled pressure at 15°C (bar)	Approx. dimensions (cm)	Nominal weight of gas (kg)	Approx. cylinder weight (kg)	Weight cylinder + gas (kg)
V	1.84	200	14 x 94	2.18	16	18.18
S	3.39	200	20.3 x 87	4.02	30	34.02
N	8.74	200	23 x 14.95	10.36	65	75.36
T	1.63	175	14 x 94	1.93	16	17.93
R	3.00	175	20.3 x 87	3.56	30	33.56
K	7.77	175	23 x 14.95	9.21	65	74.21

Notes: The nominal volume of gas is measured at 15°C and 1013mb pressure. Actual contents, volume and weight can vary around the nominal figures indicated. Cylinder height includes a 10cm allowance for the cylinder valve and guard.