

PRODUCT TECHNICAL SHEET

NITROUS OXIDE (N₂O)

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Version: 2



Ref. No.: PS013



Nitrous oxide is obtained most commonly by the thermal decomposition of ammonium nitrate. It may also be obtained by controlled reduction of nitrites or nitrates, by the slow decomposition of hyponitrites or by the thermal decomposition of hydroxylamine. It is a colourless and odourless gas.

Gas Specification	
Purity	≥98 %
H₂O (Humidity)	≤ 67 ppm
Carbon dioxide	≤ 300ppm
Carbon Monoxide	≤ 5ppm
Oxides of Nitrogen	≤ 2 ppm

Physical Data	
Specific Volume @20°C	542 ml/g
Molecular Weight	44.0

Transport/ Storage Information	
 	
UN No 1070	Class 2.2
Do not allow cylinders to slide or come into contact with sharp edges	
Cylinders of nitrous oxide should not be stored near combustible gases	
Nitrous oxide cylinders should only be stacked vertically and be firmly secured in a well ventilated area.	
Prevent dirt, grit of any sort, oil or any other lubricant from entering the cylinder valves, and store cylinders well clear of any corrosive influence, e.g. battery acid	
Use a "first in - first out" inventory system	

Hazards	
All cylinders are portable gas containers, and must be regarded as pressure vessels at all times	
Nitrous oxide is non-flammable, but readily supports combustion	
Never permit oil, grease or other readily combustible substance to come into contact with high concentrations of Nitrous Oxide	

Uses and Features	
Relief of severe pain, during induction and maintenance of Anaesthesia	
In short-term procedures which inevitably involve pain	
In dental work to provide short-term analgesia	
In cryosurgery as a refrigerant	



Cylinder Information						
Colour Coding	Cylinder Capacity		Gallons	Cylinder Dimension		Valve Outlet Connection
	M ³	CUFT		Height (mm)	Diameter (mm)	
French blue	0.82	29	180	520	100	11/16" BSP- 20 TPI
	16.82	594	3700	1560	240	

Nb: Other cylinders capacity and dimension also are available – Dimensions are given as an indication and can differ

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