

NITROGEN (N₂)

Synonyms : Dinitrogen



Gas Description

Nitrogen is mainly found in the atmosphere, where it accounts for 78% by volume of the air we breathe. Nitrogen is also found in the Earth's crust in organic form and in mineral form (ammonia), and thus contributes to soil fertility. In gaseous form, nitrogen is neutral and colourless gas. It is inerting and does not sustain life. It can be supplied in cylinders, liquified gas tank, by on site generator or by pipeline.

Typical applications :

Inert gas for pruging, pressurizing and shielding
Vector gas in electronic industry
Manufacture of fertilizers and explosives
Filling light bulbs mixed with Argon packaging of pharmaceuticals and foodstuffs
Pressurizing oil wells
Tire Pressurization
Zero and balance gas for analytical use

Transport Regulations :

UN Number : 1066
Shipping Name : NITROGEN, COMPRESSED
Class : 2.2 : Non-Flammable Gas
CAS Number : 7727-37-9
Hazchem : 2[T]
[Click here](#) for MSDS
[Click here](#) for more information

Physical Properties

Chemical symbol : N₂
Molecular weight : 28.01
Specific gravity (Air=1) : 0.967
Specific volume (m³/kg) : 0.86
Critical temperature : 147°C
Boiling point : -195.9°C

Melting Point : -210°C
Critical pressure (bar) : 33.96
Major hazards : High Pressure, Suffocation
Toxicity : Simple Asphyxiant
Flammability Range : Non-Flammable
Odour : None

[Click here](#) for more information

Application

INDUSTRY

Chemicals

APPLICATION

Quality protection of products and facilities.

Food Processing

Quick-freezing to preserve and protect foods (Used pure or mixed with CO₂).

Laboratories and Analysis

Used pure or in mixtures for various industrial and hospital analysis and quality control.

Healthcare

Low-temperature preservation of living tissues and cells

[Click here](#) for more information

Typical Specification Comparison Table

Grade	Purity	Typical Impurities (ppm molar)					
		H ₂ O	O ₂	THC	H ₂	CO	CO ₂
Alphagaz 2	99.9995%	<0.5	<0.5	<0.1	<2	<0.1	<0.1
Alphagaz 1	99.999%	<3	<2	<0.5			
Alphagaz 1000	99.999%		<2	<1		<1	<400
Alphagaz HP	99.995%						

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Nitrogen : **Alphagaz 2**

Min Purity 99.9995%

<u>Gas</u>		<u>Cylinder information</u>			
Typical impurities (ppm molar)		Cylinder Size	Valve Connection	Pressure (kPa)	Contents (m ³)
H ₂ O	< 0.5ppm	G	AS 2473 T 50	16,600	9.2
O ₂	< 0.5ppm				
THC	< 0.1ppm				
H ₂	< 2ppm				
CO	< 0.1ppm				
CO ₂	< 0.1ppm				

Recommended Equipment

Dual stage chrome plated brass body regulator with a stainless steel diaphragm.
For further information [Contact](#) the specialty gases representative in your region.

Nitrogen : **Alphagaz 1**

Min Purity 99.999%

<u>Gas</u>		<u>Cylinder information</u>			
Typical impurities (ppm molar)		Cylinder Size	Valve Connection	Pressure (kPa)	Contents (m ³)
H ₂ O	< 3ppm	G	AS 2473 T 50	16,600	9.2
O ₂	< 2ppm				
THC	< 0.5ppm				

Recommended Equipment

Dual stage chrome plated brass body regulator with a stainless steel diaphragm.
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Nitrogen : **Alphagaz HP**

Min Purity 99.995%

<u>Gas</u>		<u>Cylinder information</u>			
Typical impurities (ppm molar)		Cylinder Size	Valve Connection	Pressure (kPa)	Contents (m ³)
O ₂	< 3ppm	G	AS 2473 T 50	16,600	9.2
THC	< 1ppm				
CO	< 1ppm				
CO ₂	< 400ppm				

Recommended Equipment

Dual stage chrome plated brass body regulator with a stainless steel diaphragm.
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