

# Nitrogen (N<sub>2</sub>)



Purities	Type	Nitrogen 3.0	Nitrogen 4.0	Nitrogen 5.0	Nitrogen 6.0
	<b>Purity (%)</b>	1.7	4.3	≥ 99.999%	11.3
	<b>Impurities (ppm)</b>	16.0	38.3	O <sub>2</sub> ≤ 3ppm H <sub>2</sub> O ≤ 5ppm	73.9

Packaging	Type						
	Sizes	D	E	G	G EHP	6 pack <sup>#</sup>	12 pack <sup>#</sup>
	<b>Contents (m<sup>3</sup>)</b>	1.7	4.3	9.5	11.3	80.0	161.0
	<b>Weight – full (kg)*</b>	16.0	38.3	70.5	73.9	607.9	1250.0
	<b>Weight – empty (kg)*</b>	14	33	60	60	515	995
	<b>Pressure (kPa at 15°C)</b>	17 600	20 000	20 000	25 000	30 000	30 000

\*Approximate values only. Weights vary from cylinder to cylinder and depend on the product in the cylinder and fill pressure.  
<sup>#</sup> Packs are equipped with a Type 50 reductive valve and Type 51 valve for full pack pressure.

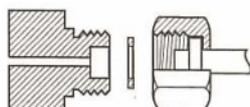
Conversion Factors	m <sup>3</sup> of gas (15°C, 1 bar)	Litre liquid (boiling point, 1 bar)	kg
	1	1.447	1.170
	0.691	1	0.809
	0.855	1.237	1

## Cylinder/Bundle Colour

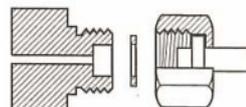
Pewter



## Valve Outlet



Type 50 valve  
(For pressures below 200 bar)



Type 51 valve  
(For pressures above 200 bar)

## Properties

<b>Characteristics</b>	Colourless, odourless, inert
<b>Molecular weight (mass)</b>	28.013 g/mol
<b>Critical temperature</b>	126.20K (-146.95°C)
<b>Boiling point at 1 013 bar</b>	77.35K (-195.8°C)
<b>Density of gas in relation to air (specific gravity, air =1)</b>	0.967

## Related Products

<b>Compressed gas</b>	Nitrogen Food Grade, Nitrogen Pharma Grade
<b>Cryogenic</b>	Nitrogen 3.0, Nitrogen 5.0

**Recommended Equipment**

Model	Type	Material
FM51	Single stage cylinder regulator	Chrome plated brass with Hasteloy diaphragm
FM52	Compensated dual stage effect cylinder regulator	
FM53	Dual stage cylinder regulator	
BM55-1	Wall mounted regulator with purge for 1 cylinder/pack	
BM55-2	Manual change over wall mounted regulator with purge for 2 cylinders/packs	
BM55-2U	Semi-auto changeover wall mounted regulator with purge for 2 cylinders/packs	
EM55-1	Wall mounted line regulator	



FM51 – Single stage cylinder regulator



FM52 – Compensated dual stage effect cylinder regulator

**Hazards**

<b>Physical</b>	Compressed gas may explode if cylinder is heated
<b>Health</b>	Asphyxiant in high concentrations
<b>Environmental</b>	Not applicable

**Transport Safety Data**

<b>UN number</b>	1066
<b>Transport hazard class</b>	2.2

**Safety**

**Cylinder storage and handling**

Store cylinders in upright position and properly secure to prevent falling over. Keep cylinders in a well ventilated area below 50°C, away from sources of heat and combustible materials. Check if cylinders are clearly labelled. Protect cylinders, particularly the valve, against physical damage whether full or empty. Close valves on empty cylinders.

**Leaking cylinders**

Move to a well ventilated area. Stop leak if possible to do so. If leak cannot be stopped, move cylinder to a safe area and allow to empty. Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe.

**Precautions in use**

Never allow oil or grease on cylinder or valve. Close cylinder valve when not in use. Always use regulator to connect to the system. Secure cylinders to prevent falling over. Open cylinder valve slowly. Use only in a well ventilated area.

**Additional information**

The information in this publication is intended to give basic guidance for the safe handling and use of gases. For more information, please refer to the Safety Data Sheets (SDS) at [coregas.com.au](http://coregas.com.au)