

## Air. Compressed Gases Data Sheet.

**Air** Compressed air is the most common gas mixture, being comprised of primarily nitrogen (approximately 78%) and oxygen (approximately 20.8%). Many other components are found in compressed air which results in a total of 100%, however other forms of compressed air are available. One example is synthetic air, which is artificially produced by mixing ultra high purity nitrogen and ultra high purity oxygen.

### Specifications

	Zero Grade (Synthetic)	Instrument Grade
BOC Material Code	055	054
N <sub>2</sub>	Balance	–
H <sub>2</sub> O	<5 ppm	<25 ppm
O <sub>2</sub>	20.5 ±0.5%	–
C <sub>n</sub> H <sub>m</sub>	<1 ppm	–
	D, E, G – 137 bar	
Cylinder Size - Pressure	MCP15 – 200 bar	D, E, G, MAN6, MAN15, COP16 – 150 bar

### Physical Properties

Property	Value
CAS Registry Number	132259-10-0
Relative Molecular Weight	28.975 g/mol
Boiling Point (at 1.013 bar)	-194.3°C / 78.85 K
Density (at 1.013 bar, 15°C)	1.21 kg/m <sup>3</sup>
Vapour Pressure, 0°C	–
Vapour Pressure, 20°C	–
Flammability in air (% volume)	Non-combustible
Specific Volume (at 1.013 bar, 15°C)	0.826 m <sup>3</sup> /kg

### Dangerous Goods Information

UN Number	Dangerous Goods Class
1002	2.2
AIR, COMPRESSED	



### Compatibility

Legend: ✓ Good, • Fair, ✗ Avoid

Aluminium	✓	Copper	✓	Polyethylene	✓
Buna® N	✓	Kel-F®	✓	PVC	✓
Brass	✓	Monel®	✓	Stainless steel	✓
Butyl rubber	✓	Neoprene®	✓	Teflon®	✓
Carbon steel	✓	Nylon®	✓	Viton®	✓

### Industries



Auto



Chem



Energy



Food



Manuf



Medical



Metal



OEM



Petrol



Pharma



R & D



Semi

Recommended  
Cylinder Regulator

BASELINE®	Max. Outlet Pressure		Outlet	Product Code	
	Bar	psi		Brass	Stainless Steel
Single Stage	1	15	1/4"	M5724-516-285	M5730-507-285
			1/8"	M5724-515-285	M5730-506-285
	3.5	50	1/4"	M5725-516-285	M5731-507-285
			1/8"	M5725-515-285	M5731-506-285
	7	100	1/4"	M5726-516-285	M5732-507-285
			1/8"	M5726-515-285	M5732-506-285
	10.5	150	1/4"	M5727-516-285	M5733-507-285
			1/8"	M5727-515-285	M5733-506-285
	17	250	1/4"	M5728-516-285	M5734-507-285
			1/8"	M5728-515-285	M5734-506-285
	35	500	1/4"	M5729-516-285	M5735-507-285
			1/8"	M5729-515-285	M5735-506-285
Dual Stage	1	15	1/4"	M5628-516-285	M5633-507-285
			1/8"	M5628-515-285	M5633-506-285
	3.5	50	1/4"	S5629-516-285	M5634-507-285
			1/8"	M5629-515-285	M5634-506-285
	7	100	1/4"	M5630-516-285	M5635-507-285
			1/8"	M5630-515-285	M5635-506-285
	10.5	150	1/4"	S5631-516-285	M5636-507-285
			1/8"	M5631-515-285	M5636-506-285
	17	250	1/4"	M5632-516-285	M5637-507-285
			1/8"	M5632-515-285	M5637-506-285

## Applications

## Analytical

- Zero gas in the running and calibration of environmental monitoring and test measurements in situations where the presence of sulphur and oxides of nitrogen can effect the measurement equipment
- Oxidiser for flame ionisation detectors in chromatography and total hydrocarbon analysers
- Used together with acetylene in atomic absorption flame spectrometry
- Balance gas for many calibration gases

## Medical

- Medical gas mixtures

## Manufacturing

- Source of nitrogen, oxygen and argon

