

## Air, Synthetic (80% N<sub>2</sub> + 20% O<sub>2</sub>)

CAS: 132259-10-0 EC: Not Available UN: 1002

Air IG Zero					
Impurities (ppm)	CO	0,5	CO <sub>2</sub>	0,5	C <sub>n</sub> H <sub>m</sub> 5 H <sub>2</sub> O 3
Typical Filling Pressure	20°C: 200 bar(a)				

### Transport

ADR Class 2, 1 A



DOT Class 2,2



Product Description	Size (kg)	Grade	Material Number	Valve Connection	Recommended Regulator
Air IG Zero	1,5	Instrument Grade	513207-IE-C	5/8" BSP RH Int	W019110 or W019210
Air IG Zero	11,6	Instrument Grade	513207-SE-C	5/8" BSP RH Int	W019110 or W019210

Physical Data	
Molecular Weight	28,975
Boiling Point at 1,013 bar [°C]	-194,3
Density at 1,013 bar, 20°C [kg/m <sup>3</sup> ]	1,205
Vapour Pressure at 0°C [bar]	-
Vapour Pressure at 20°C [bar]	-
Flammability Range in Air [% volume]	Non-combustible
Specific Volume at 1,013 bar, 20°C [m <sup>3</sup> /kg]	0,830



### Material Compatibility

Aluminium	N	Brass	rubber	Butyl	Carbon	steel	Copper	Kel	Monel	Neoprene	Nylon	Polythene	PVC	Stainless	steel	Teflon	Viton
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Legend: ● Good    ● Fair    ● Avoid

### Source

- Synthetic air is produced by mixing pure oxygen (20%) and pure nitrogen (80%). This eliminates all kinds of impurities present in normal ambient air.
- Synthetic air is used together with acetylene in atomic absorption flame spectrometry.
- Synthetic air is used as a balance gas for many calibration gases.

### Applications

- Air is a source of oxygen and nitrogen.
- Air is the source of oxygen for burning, respiration of plants and animals, decay and industrial oxidations.
- Synthetic air is used as zero gas in the running and calibration of environmental monitoring and test measurements where levels of sulphur and nitric oxides can effect the measurement equipment.
- Synthetic air is used in medical gas mixtures.
- Synthetic air is regularly used as the oxidiser for flame ionisation detectors in chromatography and total hydrocarbon analysers.