

Propane (C₃H₈, R-290)

CAS: 74-98-6 UN: 1978

Propane Instrument Grade N1.7						
Purity (%)	97					
Impurities (ppm)	S 1	C _n H _m 3%	H ₂ O 50	Unsaturated 0,1%	1,3 Butadiene 1 400	
Typical Filling Pressure	15°C: 7,3 bar(a)					

Characteristics

- Flammable
- Colourless, liquefied gas.

Health Risks

- Asphyxiant at high concentrations.

Transport

ADR Class 2,2F - DOT Class 2,1 -



Product Description	Size (kg)	Grade	Material Number	Valve Connection	Recommended Regulator
Propane Pure	Bulk	N1.7	580080	5/8" BSP LH Int	Recommendation on Request
Propane IG	45,0	N1.7	508403-LF-C	5/8" BSP LH Int	W019120 or W019220
Propane IG	9,0	N1.7	508403-LC-C	5/8" BSP LH Int	W019120 or W019220
Propane IG	48,2	Wet N1.7	508413-LF-C	5/8" BSP LH Int	No Regulator Required

Physical Data

Molecular Weight	44,097
Boiling Point at 1,013 bar [°C]	-42,04
Density at 1,013 bar, 20°C [kg/m ³]	1,868
Vapour Pressure at 0°C [bar]	4,76
Vapour Pressure at 20°C [bar]	8,39
Flammability Range in Air [% volume]	2,1 - 9,5
Specific Volume at 1,013 bar, 20°C [m ³ /kg]	0,535

Material Compatibility

Aluminium	Buna	Brass	Butyl	Carbon	Copper	Neoprene	Nylon	Polythene	PVC	Stainless	Teflon	Viton
●	●	●	●	●	●	●	●	●	●	●	●	●

Legend: ● Good | Fair ■ Avoid

Source

- Propane is a constituent of crude petroleum and natural gas from which it is obtained by refining and processing operations.

Applications

- used to calibrate process control analysers in the petro-chemical industry. It is also used in its pure form as the fuel gas in flame photometers.
- Propane is of interest as a specialty gas mainly in mixtures

chemical industry. It is also used in its pure form as the fuel gas in flame photometers.

- - For heating of industrial premises and apartments
 - As fuel supply to hot air generators used in farming for drying harvests
 - For heating animal breeding areas
 - In hotels and restaurants
 - In portable heating units at work sites, markets, etc.
 - In the iron and steel industry: burners for heat treatment furnaces, radiation panels for surface treatment, metal oxy-cutting
 - In the chemical industry: burners for ceramic kilns, in paintwork finishing installations, incinerators in petro-chemical furnaces
 - As a clean fuel for intra-plant vehicles, such as fork-lift trucks, where petrol fumes or soot would be considered unpleasant
 - Extensively as a refrigerant in chemical, petroleum refining and gas processing operations
 - As a refrigerant in high/medium/low temperature; commercial and industrial refrigeration and A/C
 - In heat pumps, and mixed with iso-butane it is used in high/medium temperature refrigeration; commercial and domestic refrigeration
 - In metallurgy to create controlled atmospheres. It is employed in gaseous cementation processes
 - As an aerosol propellant mixed with iso-butane.
- Propane is one of the main components in liquid petroleum gas (LPG).
- As a refrigerant it has the ASHRAE number R-290.
- Propane is used for efficiency testing of gas burners and engines.
- Propane is used in emission calibration mixtures for the automotive industry.
- Propane is used as a component in calibration gases for the gas, oil and chemical industry.

Rakeeth
Industrial Gases