

Marking

CAS-Number 74-98-6

Characterization acc. ADR UN 1978, Propane, 2.1
Class 2, 2 F

Cylinder Marking

shoulder:
red

Essential properties

Colourless, odorless, flammable gas, liquified, heavier than air

Symbols of Risks

flammable



gas, liquified

Physical Properties

molecular weight: 44,096 kg/kmol
 gas density at 0°C and 1,013 bar: 2,0098 kg/m³
 density ratio to air: 1,554
 vapour pressure at 20°C: 8,367 bar

For additional safety information see Material-/safety data sheet No. *-C3H8-104

Valves / Manifolds

Valve connection acc. to national standards

Recommended Manifolds Spectrolab control valve PN 40

**Specifications / Forms of delivery**

		2.5	3.5	
Composition				
C ₃ H ₈	>	99,5	99,95	Vol.-%
Impurities				
O ₂	<	100	10	ppmv
N ₂	<	400	30	ppmv
H ₂ O	<	10	10	ppmv
CO ₂	<	100	5	ppmv
other HC	<	4500	450	ppmv
Cylinders / Contents				
F 10 8,3 bar		4,3	4,3	kg
F 50 8,3 bar		21,2	-	kg

Remarks

Applications:
 Fuel gas for barbeques and portable stoves
 Fuel gas for laboratory burners
 Fuel gas for vehicles (liquefied petroleum gas, LPG)
 Research for polymerisation catalysts

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Description

Colourless, highly flammable, liquified gas. Forms explosive mixtures in air.

detection detector for flammable gases

Safety data

Explosion Range	1,7 - 10,8 Vol. %
Ignition Temperature	470 °C
TLV	1000 ml/m ³

Materials

Cylinders and valves: any usual materials
Seals: PTFE, PCTFE, PVDF, PA, PP, NBR, FKM

Physical Properties	
molecular weight	44,096 kg/kmol
Critical Point	
temperature	369,850 K
Pressure	42,477 bar
density	0,220 kg/l
Triple Point	
temperature	85,45 K
Pressure	1,96*10 ⁻⁹ bar
Boiling Point	
temperature	231,08 K; -42,1 °C
liquid density	0,5812 kg/l
evaporation heat	425,4 kJ/kg
vapour pressure at 20°C	8,367 bar
gas density at 0°C and 1,013 bar	2,0098 kg/m ³
density ratio to air	1,554
gas density at 15°C and 1 bar	1,874 kg/m ³
Conversion Factor	
liquid at Ts to m ³ gas (15°C, 1 bar)	
Virial Coefficient	
Bn at 0°C	-20,87*10 ⁻³ bar ⁻¹
B30 at 30°C	-14,79*10 ⁻³ bar ⁻¹
Gaseous State at 25°C and 1 bar	
specific heat capacity cp	1,696 kJ/kg K
thermal conductivity	180*10 ⁻⁴ W/m K
dynam. viscosity	8,3*10 ⁻⁶ Ns/m ²