Propellants

Propane

Propane: Ideal hydrocarbon propellant for increasing pressure.

Propane is a single component propellant in the form of an extremely flammable liquefied gas, characterized by its high pressure, which is why it is used to boost pressure in very specific applications. This propellant is not used alone as a propellant because it does not comply with the aerosol directive regarding the maximum pressure at 50°C.

Chemical Name:

Propane

CAS number:

74 - 98 - 6

Technical Characteristics:

> Extremely flammable, colorless and odorless liquefied gas.
> High pressure to increase pressure in the final formulation.
> Poorly compatible with water and polar solvents.
> Does not affect the ozone layer and low global warming potential (GWP).

Packaging:

- Cylinder
- Roll drum
- ISOtank

Applications:

Personal care
(hairspray, deodorant, etc.)

Technical aerosol

Properties:

Chemical Formula	C3H8	
Molecular Weight	44,09	g/mol
Boiling Point	-42,11	ºC
Vapor pressure (20ºC)	7,4	bar
Vapor pressure (50ºC)	16,1	bar
Liquid Density (20ºC)	0,50	kg/l
Liquid Density (50ºC)	0,45	kg/l
Kauri - Butanol	15	
Solubility in water (20ºC)	0,007	% weight
LEL (Lower Explosive Limit)	2,2	% volume
UEL (Upper Explosive Limit)	9,5	% volume
1.3-butadiene content	<0.1	% weight

Table of temperature, pressure and density:

Temperature (ºC)	Pressure (bar)	Liquid density (kg/l)
0	3,7	0,529
5	4,5	0,522
10	5,4	0,515
15	6,3	0,508
20	7,4	0,500
25	8,5	0,492
30	9,8	0,484
35	11,2	0,476
40	12,7	0,467
45	14,3	0,458
50	16,1	0,449
55	18,1	0,439
60	20,2	0,428
65	22,4	0,416

Normative:

GRIT (Gases Research Innovation & Technology) is committed to the continuous improvement of our inbuilt Quality Control, Environment and Major Accident Prevention Systems as well as close collaboration with our product and service providers. The scope of the system includes the packaging, commercialization, storage and innovation of technical gases and the management of residual fluorinated gas and halogenated solvents.

All this work is reflected in our certificates ISO 9001 & ISO 14001.

More information:

If you want more information about our products, contact us.

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