

1-Propyne (Syn: Methyl acetylene)

CAS #: 74-99-7

Product #: 315236

DESCRIPTION: 1-Propyne is a colorless, non-toxic flammable gas at room temperature and atmospheric pressure. It is shipped as a liquified gas under its own vapor pressure of 75 psia.

USES: Specialty gas mixtures, organic synthesis, instrument calibration, and welding gas

TYPICAL PHYSICAL & CHEMICAL PROPERTIES:

Attribute:	Typical Value
Purity:	99.0% Minimum
Molecular Formula:	C ₃ H ₄
Molecular Weight:	40.06
Density, Liquid @ Saturation Pressure @ -23.2°C.	0.6711 kg/l ¹
Vapor Pressure @ 20°C	75.0 psia ²
Boiling Point @ 1 ATM:	-23.23° C ²
Melting Point @ 1 ATM:	-102.7° C ²
Viscosity, Gas @1 ATM:	0.00833 cP ¹
Odor:	Characteristic Acetylenic odor.

TYPICAL IMPURITIES:

Other C-3 and C-4 Hydrocarbons

1-Propyne contains 0.001% Hydroquinone and 0.01% Butylated hydroxytoluene as inhibitors.

TOXICITY: 1-Propyne is not considered a toxic gas, however its toxicological properties have not been fully investigated. It has some anesthetic properties, and probably acts as a simple asphyxiant. Due to its low atmospheric boiling point material is cryogenic hazard. 1-Propyne is not compatible with copper or alloys containing >65% copper. A Safety Data sheet is available upon request.

SHIPPING CLASS: UN3161 Liquified gas, flammable, n.o.s. (1-Propyne), 2.1

Cylinder Model/Size	Standard Package Size (kg)	CGA with diptube (liquid withdrawal)	CGA without diptube (vapor withdrawal)
Lecture Bottle	0.250	n/a	CGA 180
5 lb.	2.5	CGA 555	CGA 510
11 lb.	5.0	CGA 555	CGA 510
20 lb.	10.0	CGA 555	CGA 510
100 lb.	50.0	CGA 555	CGA 510
420 lb.	220.0	CGA 510	CGA 510

The information contained herein is typical of this grade of product. We accept no responsibility for the results obtained by the application of this information or for the safety and suitability of this product in any particular use. Users are advised to make their own tests to determine the suitability of this product for their own purposes. No warranty is expressed or implied and buyers assume all responsibility and liability for loss or damage arising from the use of this information or handling and use of this product.

¹ Matheson Gas Data Book, 1980, ² webbook.nist.gov

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