

ACETYLENE (C₂H₂)

Synonyms : Ethyne



Gas Description

Acetylene is a colourless, non-toxic but narcotic, highly flammable, asphyxiant with a gas density at STP 1.1747 kg/m³. Acetylene is a synthesis gas product from the reaction of calcium carbide with water. Acetylene has a strong garlic odour, is unstable, highly combustible and can produce a flame over 3000°C when combined with oxygen. Acetylene can be supplied in cylinders.

Typical applications :

Fuel for atomic absorption spectroscopy (AAS)

Transport Regulations :

UN Number : 1001
Shipping Name : ACETYLENE, DISSOLVED
Class : 2.1: Flammable gases
CAS Number : 74-86-2
Hazchem : 2[S]E

[Click here](#) for MSDS
[Click here](#) for more information

Physical Properties

Chemical symbol : C₂H₂
Molecular weight : 26.038
Specific gravity (Air=1) : 0.91
Specific volume (m³/kg) : 0.91
Critical temperature : 35.2°C
Boiling point : -75°C

Melting Point : -84°C
Critical pressure (bar) : 62.45
Major hazards : Fire
Toxicity : Simple Asphyxiant
Flammability Range : 2.3 - 100% ref N°7
Odour : Garlic

[Click here](#) for more information

Application

INDUSTRY

Laboratories

Machine/Metal Construction

Glass

APPLICATION

Fuel gas in AAS (Atomic Absorption Spectroscopy)

Cutting and Welding (with oxygen)

Lubrication of bottle production moulds

[Click here](#) for more information

Acetylene : Instrument Grade

Standard Purity 99.6%

Gas	Cylinder information			
Typical impurities (ppm molar)	Cylinder Size	Valve Connection	Pressure (kPa)	Contents (m ³)
Ph ₃ + AsH ₃ <1ppm	G	AS 2473 T20	1,700	7.00
	E		1,700	3.20
	D		1,700	1.00

Recommended Equipment

Single stage chrome plated brass body regulator with a stainless steel diaphragm.

NOTE : Maximum outlet pressure is 100kPa.

Do not use if cylinder pressure is less than 570kPa to avoid excessive acetone contamination.

For further information [Contact](#) the specialty gases representative in your region.