

# METHANE (CH<sub>4</sub>)

Synonyms : Methyl hydride; Marsh Gas



## Gas Description

Methane is a colourless, odourless, flammable and non-toxic gas with a gas density at STP 0.679 kg/m<sup>3</sup>. Methane is the major component of natural gas and is the base material for ammonia, ethanol, methanol, methyl chloride, chloroform and various other chemicals.

### Typical applications :

Heating Fuel  
Raw material for production of Hydrogen, Methanol, Ammonia etc  
Combustion and engine testing  
Quenching gas in radiation detectors  
Carbon carrier in metallurgy

### Transport Regulations :

UN Number : 1971  
Shipping Name : METHANE, COMPRESSED  
Class : 2.1 : Flammable Gas  
CAS Number : 74-82-8  
Hazchem : 2[S]E

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

## Physical Properties

Chemical symbol : CH<sub>4</sub>  
Molecular weight : 16.04  
Specific gravity (Air=1) : 0.55  
Specific volume (m<sup>3</sup>/kg) : 1.47  
Critical temperature : -82°C  
Boiling point : -161.6°C

Melting Point : -182.5°C  
Critical pressure (bar) : 46.43  
Major hazards : Fire and High Pressure  
Toxicity : Simple Asphyxiant  
Flammability Range: 4.4 - 17.0% ref N°183  
Odour : None

[Click here](#) for more information

## Application

### INDUSTRY

Laboratories and Analysis

### APPLICATION

In mixture with argon, methane is used in geiger counters and for the detector in X-Ray Fluorescence (XRF) as quenching gas.  
In mixture with other hydrocarbons, methane is used as a reference point in calorimetric measurements for the measurement of PCI of hydrocarbons or coal.  
Methane is used in calibration gas mixtures for petrochemical industry; environmental emission monitoring, industrial hygiene monitors and trace impurity analyzers.

[Click here](#) for more information

# METHANE (CH<sub>4</sub>)

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## Methane : N35 Standard Purity 99.95%

<u>Gas</u>		<u>Cylinder information</u>			
Typical impurities (ppm molar)		Cylinder Size	Valve Connection	Pressure (kPa)	Contents (m <sup>3</sup> )
H <sub>2</sub> O	< 5ppm	B 5 alu	NF E		
O <sub>2</sub>	< 10ppm	B 20			
C <sub>2</sub> H <sub>6</sub>	< 200ppm	B 50			
CnHm	< 50ppm				
CO <sub>2</sub>	< 10ppm				
N <sub>2</sub>	< 200ppm				
H <sub>2</sub>	< 20ppm				

### Recommended Equipment

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

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

## Methane : N45 Standard Purity 99.995%

<u>Gas</u>		<u>Cylinder information</u>			
Typical impurities (ppm molar)		Cylinder Size	Valve Connection	Pressure (kPa)	Contents (m <sup>3</sup> )
H <sub>2</sub> O	< 5ppm	B 0.4 alu	NF E		
O <sub>2</sub>	< 5ppm	B 5 alu			
C <sub>2</sub> H <sub>6</sub>	< 15ppm	B 20 alu			
CnHm	< 5ppm	B 50			
CO <sub>2</sub>	< 1ppm				
N <sub>2</sub>	< 15ppm				
H <sub>2</sub>	< 1ppm				

### Recommended Equipment

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

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# METHANE (CH<sub>4</sub>)

Synonyms : Methyl hydride; Marsh Gas



Methane : **N55**

Standard Purity 99.9995%

<u>Gas</u>		<u>Cylinder information</u>			
Typical impurities (ppm molar)		Cylinder Size	Valve Connection	Pressure (kPa)	Contents (m <sup>3</sup> )
H <sub>2</sub> O	< 2ppm	B 0.4 alu	NF E		
O <sub>2</sub>	< 0.5ppm	B 1 alu			
C <sub>2</sub> H <sub>6</sub>	< 0.1ppm	B 5 alu			
CnHm	< 0.05ppm	B 20			
CO <sub>2</sub>	< 0.1ppm	B 50			
N <sub>2</sub>	< 2ppm				
H <sub>2</sub>	< 0.1ppm				

#### Recommended Equipment

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

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