

Methane 2.5

Product Designation	Methane 2.5
Physical state	gaseous, compressed
Chemical symbol	CH ₄
Purity	99,5 vol.%
Other names	Digester gas R-50 Marsh gas Sewage gas Biogas Landfill gas

Impurities	Maximum value
Oxygen	100 vol. ppm
Nitrogen	600 vol. ppm
Hydrocarbons + hydrogen	3500 vol. ppm

Delivery formats

In steel cylinders and 12-cylinder bundles

Descriptions	cylinders/container volumes	Filling pressure	Content
Methane 2.5 T10 RCyl	10 l	200 bar	2,60 m ³
Methane 2.5 T50 RCyl	50 l	200 bar	13,00 m ³
Methane 2.5 RBundle12	12 x 50 l	200 bar	156,00 m ³

Unless otherwise stated, these refer to filling pressure at 288,15K (15°C) and to content at 288,15K (15°C) and 1,013 bar.

Other delivery formats

- on request
- Alumini® 12, 200 Methane 4.5
- in steel cylinders and bundles: Methane 2.5, 3.5, 4.5 and 5.5

Properties	highly flammable
Valve connection	DIN 477 No. 1 (W 21.80 x 1/14 LH)
Shoulder colour	flame red (RAL 3000)
Suitable pressure regulators	WEGA range: see brochure: "Good on Top: Pressure Regulators for Specialty Gases".

Typical applications

for measurement of gamma and X-ray radiation



Westfalen AG · Industrieweg 43
D-48155 Münster · Tel. 02 51/6 95-0
Fax 02 51/6 95-194 · www.westfalen-ag.de

Specialty gases

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Conversions

1 m ³	at 288.15 K (15°C); 1 bar	=	0,671 kg
1 m ³		=	1,586 l liquid
1 kg		=	1,490 m ³
1 kg		=	2,364 l liquid
1 l liquid	at T boiling point; 1 bar	=	0,631 m ³
1 l liquid		=	0,423 kg

Physical data:

Molar Mass	Molar mass	16,04 g mol ⁻¹
Liquid State	Boiling Point	111,63 (-161,5) K (°C)
	Heat of Evaporation	510,2 kJ kg ⁻¹
	Liquid Density	422,6 kg m ⁻³
Gaseous state	Density (at 273.15 K and 1.013 bar)	0,72 kg m ⁻³
	Density Ratio to Air (at 288.15 K and 1.013 bar)	0,55
	Specific heat (at 298.15 K and 1.013 bar)	2,24 kJ kg ⁻¹ K ⁻¹
	Thermal Conductivity (at 288.15 K and 1.013 bar)	0,0328 J s ⁻¹ m ⁻¹ K ⁻¹
Critical Point	Temperature	190,53 (-82,6) K (°C)
	Pressure	45,96 bar
	Density	162,8 kg m ⁻³
Triple Point	Temperature	90,7 (-182,5) K (°C)
	Vapour Pressure	0,117 bar
	Heat of Fusion	58,3 kJ kg ⁻¹
Additional operating	Ignition Point	868 (594,9) K (°C)
	Ignition Range in Air	4,4-17 vol.%
	Calorific Value to DIN 51850	39819 kJ kg ⁻³

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