

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

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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

The provided data, values and information corresponds to the state of knowledge at the time of printing. They assert no claim for accuracy or completeness and in this respect do not absolve the user from their duty of verification.
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