

Methyl Chloride

methylchloride

Methyl Chloride is used in the chemical and pharmaceutical industry, mainly as raw material for the production of silicones and methyl celluloses, but also for surfactants, pharmaceuticals and dye stuffs. For more information on Methyl Chloride, please download our Application Guide or Product Data Sheet.

CAS number
74-87-3

REACH number
01-2119493708-22

EINECS/ELINCS No.
200-817-4

Molecular weight
50.49

Characteristics

Auto ignition temperature, 1013 mbar	~625 °C
Boiling temperature, 1013 mbar	-23.8 °C
Critical molar volume	0.139 m ³ /mol
Critical pressure	66.8 bar
Critical temperature	143.1 °C
Density	0.363 g/cm ³
Density (gas), 1013 mbar, 0°C	2.307 g/cm ³
Density (liquid), 4.90 bar, 20°C	0.921 kg/l
Density (liquid), 1013 mbar, -24°C	1.003 kg/l
Dynamic viscosity, 20°C	0.18 mPa.s
Evaporation energy, -24°C	426 J/g
Explosion limits in air, 1013 mbar	7.1-18.5 % v/v
Flash point in air, 1013 mbar	-46 °C
Freezing temperature	-97.7 °C
Fusion energy, -97.7°C	127.4 J/g
Gas pressure (liquid), 20°C	4.90 bar
Heat of combustion ΔH°_c (gas), 25°C, 1013 mbar	-12790 J/g
Heat of formation ΔH°_f (liquid), 25°C, 1013 mbar	-1622 J/g
Solubility in water, 1013 mbar, 30 °C	~7 g/l
Static dielectric constant (liquid), -24°C	12.9
Surface tension (liquid), 4.90 bar, 20°C	16.5 mN/m
Temperature class (ignition class, DIN VDE 0165)	T1
Water pick up (liquid), 25°C	~0.7 g/kg

Storage

Vessels and tanks containing Methyl Chloride have to be stored well tight in a dry, cool and ventilated place. Keep away from sunlight and heating devices (heaters, radiators, steam pipes) to prevent warming and pressure build-up inside the containers. With respect to these recommendations Methyl Chloride will be stable during storage for at least 6 months.

Packaging and transport

As liquefied gas, methyl chloride is dispatched in containers or in compressed-gas rail tankers holding 20 to 65 t. The rail tankers are fitted with a bottom valve for the liquid phase and additional valves for the gas phase (gas-shuttle pipe). Emptying of containers can be done by gas displacement method with the aid of pumps for the liquid phase or by pressurizing with dry nitrogen gas. According to the RID regulation the maximum load being allowed for these containers is 0.81 kg/L. Pressurized gas containers are subject to special statutory regulations. Be aware to attend to specific local national regulations.

UN number	1063
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