

Methyl chloride



PERFORMANCES

Methyl chloride (CH₃Cl) or monochloromethane is a colorless gas with an ethereal odor, heavier than air.

Its commercial reference is R40. It is used in the chemical industry :

- as a methylation agent in organic synthesis
- for tetramethyl lead, silicones, and butyl rubber manufacturing
- as solvent or extraction agent for heat sensitive products
- as refrigerant and propellant

SPECIFICATIONS

Standard characteristics	Limit values
Appearance	clear
Purity	≥ 99,97 % weight
Moisture content	≤ 50 ppm weight
Acidity (HCL)	≤ 10 ppm weight
Composition :	
Ethyl chloride	≤ 50 ppm weight
Methylene chloride	≤ 50 ppm weight
Chloroform	≤ 10 ppm weight
Carbon tetrachloride	≤ 10 ppm weight
Dimethylether	≤ 20 ppm weight
Methanol	≤ 20 ppm weight
Acetone	≤ 20 ppm weight
Non volatile residue	≤ 50 ppm weight

CHARACTERISTICS

		Units	Values
Chemical Formula			CH₃Cl
Molecular weight		g/mol	50,5
Boiling point	at 1,013 bar	°C	-24
Melting point	at 1,013 bar	°C	-98
Critical temperature		°C	143
Critical pressure		bar	65,9
Latent heat of vaporization	(boiling point)	kcal/kg	102,3
Latent heat of melting	(melting point)	kcal/kg	30,44
Liquid density	at 15 °C	kg/m ³	950
Vapor pressure	at 20°C	bar absolute	4,7
Flammability limit	In the air at 20° C		
Lower limit	below 1,013 bar	% volume	8,1
Upper limit		% volume	17,2
Auto-ignition temperature	below 1,013 bar	° C	632

PACKAGING

	Bottles		Container
Capacity (liter)	26	88	930
Tare (kg)	16	38	460
Load (kg)	19	63	750
Diameter (mm)	300	300	860
Height (mm)	630	1530	2330
Outflow external diameter (mm)	21,7	21,7	26,1
Tap : left pitch (mm)	1,814	1,814	1,814
Test pressure (bar)	30	33	33

- Packaging technical characteristics are available upon request to the commercial department.
- Feasibility of filling packaging of the customers if they are in conformity with the legislation.
- Contact us for any other specific packaging.

STORAGE AND SHELF LIFE

Precautions for handling and storage:

French plants are controlled by the regulation of listed Establishments and have to comply with it (or with the local legislation).

- All packaging will be stored in a dry, well-ventilated, easily accessible place, sheltered from sunlight and bad weather, away from any ignition source.
- It is recommended to store all packaging either in a specific place or isolated and sheltered by a fence.
- All packaging and piping will be grounded to discharge static electricity.
- Leak detectors, put at ground level, will be connected to an audible alarm, which will trigger in the event of leaks.
- The whole equipment will be tested with an appropriate leak detector before use.
- Material and electrical equipment in an explosive atmosphere will comply with the regulations (*grounding, equipotential bonding, ATEX material*).

INVENTEC can study the set up and assembling of your storage tanks, piping, and pumps, according to the prevailing regulations.

CONDITIONS OF USE

Please refer to the Material Safety Data Sheet (MSDS) before using the product.

Workers handling the product should be trained about risks and preventive measures.

Methyl chloride hydrolyzes in water to give, under the action of heat, hydrochloric acid and methanol. Consequently, no trace of water is to remain in installations to contain methyl chloride.

Methyl chloride is toxic, flammable and narcotic.

Methyl chloride is compatible with :

▪ The following plastics :

✓ Teflon®

▪ The following metals :

✓ Iron
✓ Ordinary steel
✓ Stainless steel
✓ Copper
✓ Bronze

Product is not compatible with :

✓ Polyvinyl chloride
✓ Rigid polyethylene
✓ Cellulose

✓ Zinc and alloys
✓ Aluminium and alloys
✓ Galvanized iron

✓ Strong bases
✓ Oxidizing agents
✓ Combustive agents

HEALTH SAFETY AND ENVIRONMENT (HSE)

Consult the Material Safety Datasheet (MSDS) on the website : www.quickfds.com

This data is based on information that the manufacturer believed to be reliable and offered in good faith. On no account, Inventec will be responsible for special, incidental and consequential damages. The user is responsible, to the Administrative Authorities (Regulation of the listed establishments for the protection of the environment), for the conformity of his installation.