



STP-FP-109 v. 002 -

Ethyl chloride

PERFORMANCES

Ethyl chloride (C₂H₅Cl) or **monochloroethane** is a volatile, slightly toxic and very flammable gas. It is also known under the monographic reference R 160.

It is used as:

- Ethylation agent
- Refrigerant
- Solvent

SPECIFICATIONS

Standard Characteristics	Limit values
Purity	≥ 99.8 % weight
Moisture content	≤ 100 ppm weight
Acidity (HCl)	≤ 10 ppm weight
Non volatile residue	≤ 60 ppm weight

CHARACTERISTICS

		Units	Values
Chemical Formula			CH ₃ -CH ₂ Cl
Molecular weight		g/mol	64.5
Boiling point	at 1.013 bar	°C	12.3
Melting point	at 1.013 bar	°C	-138.4
Critical temperature		°C	187.2
Critical pressure		bar	52.7
Latent heat of vaporization	(boiling point)	kcal/kg	91.3
Latent heat of melting	(melting point)	kcal/kg	16.49
Liquid density	at 15°C	kg/m ³	901
Vapor pressure	at 20°C	bar	1.34
Flash point	closed cup	°C	-43
Lower flammability limit	in the air at 20°C	% volume	3.6
Upper flammability limit	below 1.013 bar		14.8
Auto-ignition temperature	below 1.013 bar	°C	510



PACKAGING

	Bottles		Container
Capacity (liter)	26	88	930
Tare (kg)	16	38	460
Load (kg)	20	65	740
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.

Climalife 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.

- In the presence of humidity, **ethyl chloride** hydrolyzes and promotes corrosion.
- At high temperature, it emits phosgene.
- Dry ethyl chloride is not corrosive and can be used with normal metals.
- Light metals and alloys are forbidden.

The product is compatible with:

COMPATIBILITY	INCOMPATIBILITY
<p>Plastics :</p> <ul style="list-style-type: none">▪ Polyoxymethylene▪ Teflon <p>Elastomers :</p> <ul style="list-style-type: none">▪ BUNA N®▪ EPDM▪ Viton® (to be tested) <p>Metals :</p> <ul style="list-style-type: none">▪ Stainless steel	<ul style="list-style-type: none">▪ Polyurethane▪ Polyvinyle chloride (PVC)▪ Polypropylene ▪ Strong bases▪ Oxidizing agents▪ Combustive agents

The information above is intended as a guide only. We assume no liability for its accuracy on its use. The user should make its own tests under its conditions in order to determine the suitability of any compound in a peculiar application.

HEALTH SAFETY 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. In no event will Climalife 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.