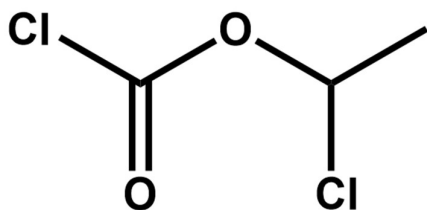


DATA SHEET Nr 2710 G

1-CHLOROETHYL CHLOROFORMATE

1CECF



Molecular formula:	C ₃ H ₄ Cl ₂ O ₂
Molecular weight:	143.0
CAS number:	50893-53-3
EC number:	256-834-2

SYNONYMS

Carbonochloridic acid, 1-chlorethyl ester

α -Chloroethyl chloroformate

α -Chloroethoxycarbonyl chloride

APPEARANCE

Clear liquid with pungent odor.

PHYSICAL PROPERTIES

Density (20°C): 1.325 g/cm³

Boiling point: 117 °C / 101 kPa

Melting point: - 65 °C

Solubility:

Soluble in usual organic solvents (acetone, toluene, chloroform, THF).

CHEMICAL PROPERTIES

- Hydrolyzes to hydrochloric acid, carbon dioxide and acetaldehyde.
- Reacts with amines to yield chloroethyl carbamates.
- Reacts with alcohols to yield chloroethyl carbonates.

USES

- Organic synthesis intermediate.
- Useful in the demethylation of tertiary amines.
- Catalyst in the desilylation of silyl-protected alcohols

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1CECF

SPECIFICATION

Parameter	Guaranteed value	Method	Operating procedure
Appearance	Clear liquid	Visual	
Color	≤ 50 APHA	Colorimetry	C – 210
Purity	≥ 98.0 %	Gas chromatography	GC – 830
Phosgene	≤ 0.05 %	Iodometry	I – 230
Hydrogen chloride	≤ 0.1 %	Acidimetry	A – 220
1,1-Dichloroethane	≤ 0.5 %	Gas chromatography	GC – 830
Acetaldehyde	≤ 0.1 %	Gas chromatography	GC – 830

PACKAGING

Polyethylene lined metal drum containing 30 or 60 kg.

Polyethylene drum containing 265 kg.

In bulk.

HANDLING PRECAUTIONS

- Physicochemical hazard:

Flash point: (closed cup) 45 °C

- Health hazards:

LD 50 (oral, rat): 470 mg/kg

Irritating on skin, mucous membrane and eyes.

- Recommended:

When handling this product wear gloves, goggles, mask and protective clothes.

In case of contact with skin or eyes, wash

immediately with clean water for at least 15 minutes. In case of acute inhalation, remove the contaminated individual to fresh air immediately. In both cases consult a physician.

- Neutralization:

Neutralize by reaction with a cold alkaline solution.

STORAGE

The product is stable when stored in its closed original packaging, protected from direct sunshine, in a covered, dry, cool and well-ventilated area.

However, in case of prolonged storage it is recommended to check again the product before use by measuring typical parameters such as color, hydrogen chloride and acetaldehyde levels.

TRANSPORTATION

Refer to MSDS.

Nr 2710 G August 2018



503/0113(7)-465(7)