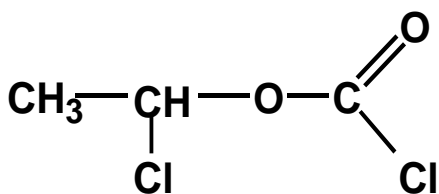


## 1-CHLOROETHYL CHLOROFORMATE

### 1-CECF



Molecular formula :	C <sub>3</sub> H <sub>4</sub> Cl <sub>2</sub> O <sub>2</sub>
Molecular weight	143
CAS number	50893-53-3
EC number	256-834-2

#### SYNONYM

Carbochloridic acid 1-chlorethyl ester,  
α-chloroethyl chloroformate.

#### ASPECT

Colorless liquid with a pungent odor.

#### PHYSICAL PROPERTIES

Density d <sub>4</sub> 20:	1.295
Boiling point:	118 °C / 100 kPa
Melting point:	- 65 °C
Solubility:	

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

#### CHEMICAL PROPERTIES

- Reacts by hydrolysis, yielding hydrochloric acid, carbon dioxide and acetaldehyde.
- Reacts with alcohols yielding carbonates.
- Reacts with amines yielding carbamates.

#### USES

- Organic synthesis intermediate.

## 1-CHLORETHYL CHLOROFORMATE

### SPECIFICATIONS

Parameter	Guaranteed Value	Method	Operating Procedure
Aspect	Clear liquid		
Color	≤ 50 APHA	Colorimetric	C-210
Purity	≥ 98,0 %	Gas chromatography	GC - 830
Phosgene	≤ 0,05 %	Iodometry	I-230
Hydrogen chloride	≤ 0,1 %	Acidimetric	A-220
1,1-dichlorethane	≤ 0,5 %	Gas chromatography	GC - 830
Acetaldehyde	≤ 0,1 %	Gas chromatography	GC - 830

### PACKAGING

PE lined metal drum containing 30 or 60 kg;  
PE drum containing 265 kg; IBC 1260kg.

### HANDLING PRECAUTIONS

- Physical-chemical hazard  
Flash point: 45 °C
- Health hazards  
LD 50 (ingestion rat): 470 mg/kg = harmful.

Irritating on skin, mucous membrane and eyes.

- Recommended  
Avoid contact with metallic compounds (especially iron salts) which catalyze its decomposition.  
When handling this product, wear gloves, goggles, mask and protective clothes.  
If eyes or skin are contaminated, wash immediately with clean water for at least 15 minutes. In case of inhalation of concentrated vapors, take person to fresh air. In both cases, consult a physician.

- Neutralization  
Neutralize by reaction with a basic solution.

### STORAGE

Stored in its closed original drum, in a covered dry, cool, and well ventilated warehouse, the product is stable.  
However, in case of prolonged storage, it is recommended to check again the product before use, by measuring typical parameters of its qualitative evolution such as the color, the hydrochloric acid and acetaldehyde levels.

### TRANSPORT

Refer to MSDS.

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