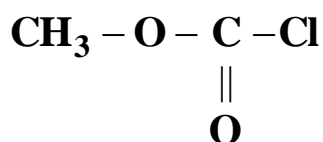


## DATA SHEET Nr 2010 K

# METHYL CHLOROFORMATE

## MCF



|                    |  |
|--------------------|--|
| Molecular formula: | C <sub>2</sub> H <sub>3</sub> ClO <sub>2</sub> |
| Molecular weight:  | 94.5   |
| CAS number:        | 79-22-1  |
| EC number:         | 201-187-3                                      |

### SYNONYMS

Carbonochloridic acid, methyl ester.  
Methyl chlorocarbonate.

### APPEARANCE

Clear liquid with pungent odor.

### PHYSICAL PROPERTIES

Density (20 °C): 1.22 g/cm<sup>3</sup>  
Boiling point: 71°C / 101 kPa  
Solubility:  
Soluble in usual organic solvents.

### CHEMICAL PROPERTIES

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

### USES

- Organic synthesis intermediate.

## METHYL CHLOROFORMATE

### MCF

#### SPECIFICATION

| Parameter           | Guaranteed value | Method             | Operating procedure |
|---------------------|------------------|--------------------|---------------------|
| Appearance          | Clear liquid     | Visual             |                     |
| Color               | ≤ 30 APHA        | Colorimetry        | C – 210             |
| Purity              | ≥ 99.0 %         | Gas chromatography | GC – 241            |
| Phosgene            | ≤ 0.2 %          | Iodometry          | I – 230             |
| Hydrogen chloride   | ≤ 0.1 %          | Acidimetry         | A – 220             |
| Methanol            | ≤ 0.1 %          | Gas chromatography | GC – 241            |
| Dimethyl carbonate  | ≤ 0.7 %          | Gas chromatography | GC – 241            |
| Ethyl chloroformate | ≤ 0.05 %         | Gas chromatography | GC – 241            |

#### PACKAGING

Polyethylene lined metal drum containing 200 kg.

In bulk.

#### HANDLING PRECAUTIONS

- Physicochemical hazard:  
Flash point (closed cup): 18°C
- Health hazards:  
LD 50 (oral, rat): 60 mg/kg  
Irritating on skin, mucous membrane and eyes.  
Corrosive.
- Recommended:  
Avoid contact with metallic compounds which catalyze its decomposition.  
  
Wear gloves, goggles, mask and protective clothes.  
If eyes are contaminated wash immediately with clean water for at least 15 minutes and consult a physician.

If concentrated vapors are inhaled carry person into fresh air and consult a physician.

- Neutralization:  
Neutralize by reaction with an alkaline solution.

#### STORAGE

Stored in its closed original drum, protected from direct sunshine, in a covered, cool, dry 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 quality such as color, hydrogen chloride and methanol levels.

#### TRANSPORTATION

Refer to MSDS.

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August 2018



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