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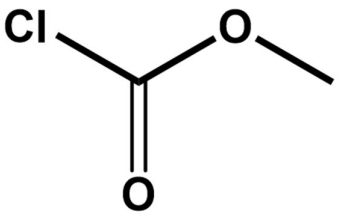
DATA SHEET Nr 2010 K

METHYL CHLOROFORMATE MCF



Molecular formula: $C_2H_3ClO_2$
Molecular weight: 94.5
CAS number: 79-22-1
EC number: 201-187-3

SYNONYMS

Carbonochloridic acid, methyl ester.
Methyl chlorocarbonate
Formic acid, chloro-, methyl ester

APPEARANCE

Clear liquid with pungent odor.

PHYSICAL PROPERTIES

Density (20 °C):	1.22 g/cm^3
Melting Point:	−61 °C
Boiling point:	71 °C (101 kPa)

Solubility:

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

CHEMICAL PROPERTIES

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

USES

- Used for derivatization of analytes in chromatographic analysis
- Component in the syntheses of asymmetric carbonates utilized as solvents and battery electrolyte materials
- Used as a source of methyl carbonate or carbamate functionalities in pharmaceutical research

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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.

HANDLING PRECAUTIONS

- Physicochemical hazard:
  Flash point (closed cup): 18 °C

- Health hazards:
  LD 50 (oral, rat): 60 mg/kg

  Corrosive; irritating to skin, mucous membranes and eyes

- Recommended:
  Avoid contact with metals that catalyze decomposition.

  Approved safety eyewear, chemically resistant gloves and laboratory-appropriate chemical resistant clothing are recommended when handling

  In case of contact with eyes, flush for a minimum of 15 minutes with fresh water and contact a physician.

  In case of acute inhalation, remove the contaminated individual to fresh air and seek medical assistance.

- Neutralization:
  Neutralize by reaction with cold alkaline solutions.

STORAGE

The product is stable if stored in its closed original drum in a covered, dry, cool and well-ventilated area.

In the case of prolonged storage, re-analyze for the presence of HCl and methanol prior to use

TRANSPORTATION

Refer to MSDS

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