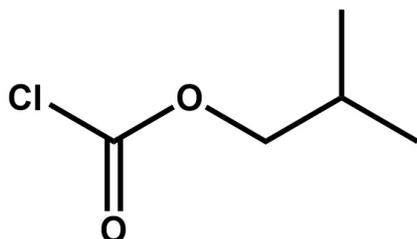


DATA SHEET Nr 2300 F

ISOBUTYL CHLOROFORMATE

IBCF



Molecular formula: C₅H₉ClO₂

Molecular weight: 136.5

CAS number: 543-27-1

EC number: 208-840-1

SYNONYM

Carbonochloric acid, isobutyl ester

2-Methylpropyl chloroformate

Isobutoxycarbonyl chloride

2-Methylpropan-1-yl chloroformate

APPEARANCE

Clear liquid with pungent odor.

PHYSICAL PROPERTIES

Density (20 °C): 1.05 g/cm³

Boiling point: 128 °C/101 kPa

Solubility:

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

CHEMICAL PROPERTIES

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

USES

- Building block used in a wide variety of pharmaceutical syntheses.
- Employed in the synthesis of custom peptide chains

ISOBUTYL CHLOROFORMATE IBCF

SPECIFICATION

Parameter	Guaranteed value	Method	Operating procedure
Appearance	Clear liquid	Visual	
Color	≤ 30 APHA	Colorimetry	C – 210
Purity	≥ 99.0 %	Gas chromatography	GC – 243
Phosgene	≤ 0.1 %	Iodometry	I – 230
Hydrogen chloride	≤ 0.1 %	Acidimetry	A – 220
Isobutanol	≤ 0.2 %	Gas chromatography	GC – 243
Di-isobutyl carbonate	≤ 0.5 %	Gas chromatography	GC – 243

PACKAGING

Polyethylene lined metal drum containing 200 kg.

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

HANDLING PRECAUTIONS

- Physicochemical hazard:
Flash point (closed cup): 36 °C
- Health hazards:
LD 50 (oral, rat): 1400 mg/kg
Corrosive: causes burns
- Recommended:
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,

- 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.

However, in case of prolonged storage it is recommended to check again the product before use by measuring typical quality parameters (color, hydrogen chloride, 5-chlorovaleric acid and anhydride levels).

TRANSPORTATION

Refer to MSDS.

Nr 1930 E

August 2018



503/0113(7)-465(7)