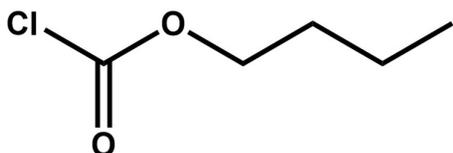


DATA SHEET Nr 2080 F

n-BUTYL CHLOROFORMATE NBCF



Molecular formula: C₅H₉ClO₂

Molecular weight: 136.5

CAS number: 592-34-7

EC number: 209-750-5

SYNONYMS

Carbonochloridic acid, n-butyl ester
Butyl carbonochloridate
Butan-1-yl chloroformate
Butoxycarbonyl chloride

APPEARANCE

Clear liquid with pungent odor.

PHYSICAL PROPERTIES

Density (20 °C): 1.07 g/cm³

Melting Point: -61 °C

Boiling point: 142 °C (101 kPa)

Solubility:

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

CHEMICAL PROPERTIES

- Reacts by hydrolysis to yield hydrochloric acid, butanol and carbon dioxide.
- Reacts with amines yielding n-butyl carbamates
- Reacts with alcohols to yield n-butyl 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 building block in a range of pharmacological syntheses frequently involving n-butyl carbonates or carbamate functionalities

n-BUTYL CHLOROFORMATE NBCF

SPECIFICATION

Parameter	Guaranteed value	Method	Operating procedure
Appearance	Clear liquid	Visual	
Color	≤ 30 APHA	Colorimetry	C – 210
Purity	≥ 99.0 %	Gas chromatography	GC – 245
Phosgene	≤ 0.1 %	Iodometry	I – 230
Hydrogen chloride	≤ 0.1 %	Acidimetry	A – 220
n-Butanol	≤ 0.2 %	Gas chromatography	GC – 245
Dibutyl carbonate	≤ 1.0 %	Gas chromatography	GC – 245

PACKAGING

Polyethylene lined metal drum containing 200 kg.

HANDLING PRECAUTIONS

- Physicochemical hazard:
Flash point (closed cup): 38 °C

- Health hazards:
LD 50 (oral, rat): 1325 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 butanol prior to use

TRANSPORTATION

Refer to MSDS

Nr 2080 F

August 2018



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