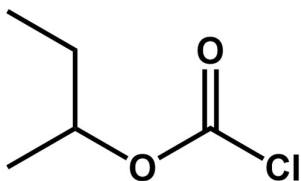


DATA SHEET Nr 2600 F  
**sec-BUTYL CHLOROFORMATE**  
**SBCF**



Molecular formula: C<sub>5</sub>H<sub>9</sub>ClO<sub>2</sub>

Molecular weight: 136.5

CAS number: 17462-58-7

EC number: 241-475-6

#### SYNONYMS

Carbonochloridic acid, 1-methylpropyl ester

Sec-butyl carbonochloridate

But-2-yl chloroformate

#### APPEARANCE

Clear liquid with pungent odor.

#### PHYSICAL PROPERTIES

Density (20 °C): 1.05 g/cm<sup>3</sup>

Boiling point: 24-25 °C (13 Torr)

Decomp. Onset: 50 °C

Solubility:

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

#### CHEMICAL PROPERTIES

- Reacts by hydrolysis to yield hydrochloric acid, sec-butanol and carbon dioxide.
- Reacts with amines yielding sec-butyl carbamates
- Reacts with alcohols to yield sec-butyl carbonates.

#### USES

- Used as a component in peroxydicarbonate polymerization initiators
- Used as a building block in a range of pharmacological syntheses wherein the sec-butyl structural motif is sought.

## sec-BUTYL CHLOROFORMATE SBCF

### SPECIFICATION

Parameter	Guaranteed value	Method	Operating procedure
Appearance	Clear liquid	Visual	
Color	≤ 30 APHA	Colorimetry	C – 210
Purity	≥ 99.0 %	Gas chromatography	GC – 248
Phosgene	≤ 0.1 %	Iodometry	I – 230
Hydrogen chloride	≤ 0.1 %	Acidimetry	A – 220
Sec-butanol	≤ 0.5 %	Gas chromatography	GC – 248
Iron	≤ 1 ppm	Atomic absorption spectrometry	AAS – 810

### PACKAGING

Polyethylene lined metal drum containing 200 kg.

### HANDLING PRECAUTIONS

- Physicochemical hazard:  
Flash point (closed cup): 38 °C
- Health hazards:  
LD 50 (oral, rat): 1000 - 1780 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

Store in its original container, in a covered, dry, cool and well-ventilated area, protected from exposure to direct sunlight. **Storage Temp: < 0 °C.**

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

### TRANSPORTATION

Refrigerated transport

Refer to MSDS