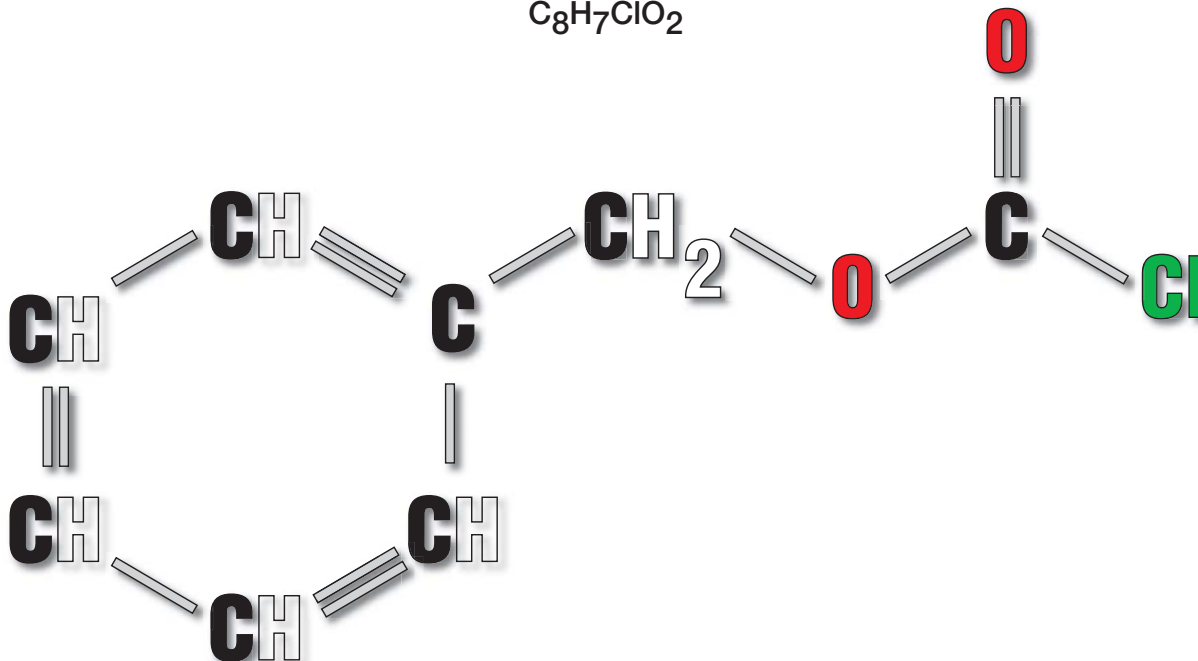


## Benzyl Chloroformate

(CHLOROFORMIC ACID, BENZYL ESTER)  
 $C_8H_7ClO_2$



Molecular Weight = 170.59  
CAS #501-53-1

### SPECIFICATIONS

Assay: 98.0 % min.  
Appearance: Water clear liquid  
Benzyl Alcohol: 0.1 % max.  
Benzyl Chloride: 1.5 % max.  
Dibenzyl Carbonate: 0.3 % max.

Color (APHA): 50 max.  
Hydrogen Chloride: 0.3 % max.  
Phosgene: 0.1 % max.  
Iron: 1.5 PPM max.

### PHYSICAL PROPERTIES

Appearance: Water clear liquid  
FW: 170.60  
MP:  
BP: Decomposes at elevated temperature

Vapor Pressure: ? Pa (20°C)  
Density: 1.195 (1.22 @ 20°C in PPG literature)  
Flash Point: 91°C (108°C Tag closed cup in PPG literature)  
Solubility: Soluble in most aprotic organic solvents

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**APPLICATIONS**

Benzyl Chloroformate is a reactive chemical intermediate used in the synthesis of pharmaceutical and agrochemical products. It is used as a reagent in peptide synthesis to protect the amine functionality as the benzyloxycarbonyl (Cbz or Z) derivative.

**SAFETY AND HANDLING**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. In case of insufficient ventilation, wear suitable respiratory equipment.

**FIRST AID**

Seek immediate medical attention. Show MSDS to doctor.

**Eye Contact:** Rinse immediately with copious amounts of water for at least 15 minutes. Do not rub.

**Skin Contact:** Wash immediately with soap and plenty of water, removing all contaminated clothing and shoes.

**Ingestion:** Consult a physician or poison control center immediately. Remove from exposure and lie down. Clean mouth with water and then drink plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**SPILLS AND DISPOSAL**

Use personal protective equipment (see MSDS). Evacuate personnel to safe areas. Dike far ahead of liquid spill for later disposal. Prevent further leakage if safe to do so. Cover liquid spill with sand, earth or other non-combustible absorbent material. Pick up and transfer to properly labeled containers. Dispose of as hazardous waste. Dispose of empty containers according to local regulations. DO NOT reuse empty containers.

**STORAGE**

Store at temperatures below -1°C (30°F) in a dry, well-ventilated location. All equipment and storage vessels must be constructed of Teflon or glass-lined steel. Keep container tightly closed. Protect from sunlight and avoid any contact with iron. Product is stable when stored properly at recommended storage temperature. Storage at temperatures above what is recommended may require retesting after six (6) months to determine assay.

**PACKAGING AND SHIPPING**

Benzyl Chloroformate is available in 5 gallon (50 lbs/drum) and 55 gallon (400 lbs/drum) containers.

**EMERGENCY RESPONSE**

\*Contact CHEMTREC 1-800-424-9300 in case of a transportation incident.

\*Contact VanDeMark 1-716-433-6764 for all other incidents.