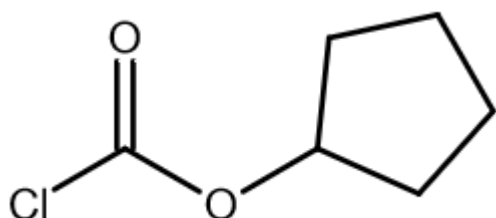


CYCLOPENTYL CHLOROFORMATE

CPCF



Molecular formula:	C ₆ H ₉ ClO ₂
Molecular weight:	148,6
CAS number:	50715-28-1
EC number:	411-460-0

SYNONYMS

Chlorocarbonic acid cyclopentyl ester.

APPEARANCE

Clear or yellowish liquid with pungent odor.

PHYSICAL PROPERTIES

Density (20°C): 1,15 g/cm³

Boiling point: Decomposes before boiling

Melting point: below -65 °C

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

CHEMICAL PROPERTIES

- Reacts by hydrolysis, yielding hydrochloric acid, carbon dioxide and cyclopentanol.
- Reacts with amines yielding carbamates.
- Reacts with alcohols yielding carbonates.
- Reacts with mercaptans yielding thiocarbonates.
- Decomposes yielding carbon dioxide and cyclopentyl chloride, furthermore hydrogen chloride and cyclopentene.

USES

- Organic synthesis intermediate.
- Synthesis intermediate for pharmaceuticals.

CYCLOPENTYL CHLOROFORMATE

CPCF

SPECIFICATION

Parameter	Guaranteed Value	Method	Operating procedure
Appearance	Clear liquid	Visual	
Color	≤ 100 APHA	Colorimetry	C – 210
Assay	≥ 95 %	Acidimetry	A – 245
Purity	≥ 97,5 %	Gas chromatography	GC – 268
Phosgene	≤ 0,03 %	Iodometry	I – 230
Cyclopentanol	≤ 0,2 %	Gas chromatography	GC – 268
Cyclopentyl chloride	≤ 2,0 %	Gas chromatography	GC – 268
Dicyclopentyl carbonate	≤ 0,3 %	Gas chromatography	GC – 268
Any other individual unspecified impurity	≤ 0,3 %	Gas chromatography	GC – 268
Total impurities	≤ 2,5 %	Gas chromatography	GC – 268

PACKAGING

Polyethylene lined metal drum containing 25, 60 or 200 kg.

Polyethylene drum containing 220 kg.

HANDLING PRECAUTIONS

- Physical-chemical hazard:
Flash point (closed cup): 57 °C
- Health hazard:
LD50 (oral, rat): 1520 mg/kg
Corrosive, causes burns.
Irritating to the eyes, skin and mucous membranes. Harmful if swallowed. Causes severe burns and eye damage. Toxic in case of inhalation.
- Recommended:
When handling this product wear gloves, goggles, mask and protective clothes.

If eyes or skin are contaminated wash immediately with clean water for at least 15 minutes.

In case of inhalation of concentrated vapors take person to fresh air. In both cases consult a physician.

- Neutralization
Neutralize by reaction with a caustic solution.

STORAGE

Store below 0 °C. Keep in its original, closed container.

In case of prolonged storage, it is recommended to check again the product before use by measuring typical parameters of its quality.

TRANSPORT

Refer to MSDS.

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June 2021



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