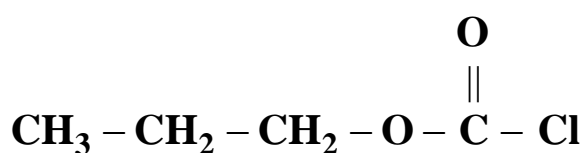


DATA SHEET Nr 2050 F

## n-PROPYL CHLOROFORMATE



Molecular formula:  $\text{C}_4\text{H}_7\text{ClO}_2$

Molecular weight: 122.5

CAS number: 109-61-5

EC number: 203-687-7

### Synonym

Carbochloridic acid, n-propyl ester.

### Aspect

Colourless liquid, lachrymator with a pungent odour.

### Physical properties

Density  $d_{420}$ : 1.09

Boiling point: 105 -106 °C

Solubility:

- Soluble in usual organic solvents (acetone, chloroform, toluene, THF).
- Slightly soluble in water.

### Chemical properties

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

### Uses

- Organic synthesis intermediate.
- Synthesis intermediate for plant protectors.

## n-PROPYL CHLOROFORMATE

### SPECIFICATION

Parameter	Guaranteed Value	Method	Operating Procedure
Aspect	Clear liquid		
Colour	≤ 30 APHA	Colorimetric	C-210
n-Propyl chloroformate	≥ 99.0 %	Gas chromatography	GC-240
Phosgene	≤ 0.1 %	Iodometry	I-230
Hydrogen chloride	≤ 0.1 %	Acidimetric	A-220
Propyl alcohol	≤ 0.1 %	Gas chromatography	GC-240
Di-propyl carbonate	≤ 1 %	Gas chromatography	GC-240

#### Packaging

Metal drums with polyethylene liner containing 200 kg.

In bulk.

#### Handling precautions

- Physical-chemical hazard  
Flash point (tag closed cup): 35 °C
- Health hazards  
LD 50 (ingestion rat): 890 mg/kg = toxic.
- Irritating action on skin and mucous membranes.  
Corrosive.
- Recommended  
Avoid contact with metallic compounds which catalyse the decomposition.  
When handling this product, wear gloves, goggles, mask and protective clothes.  
If eyes are contaminated, wash immediately with clean water for at least 15 minutes. In case of inhalation of concentrated vapours,

take person to fresh air. In both cases, consult a physician.

- Neutralization  
Neutralize by reaction with a basic solution.

#### Storage

Stored in its closed original drum, in a covered dry, cool, and well ventilated warehouse, the product is stable.

However, in case of prolonged storage, it is recommended to check again the product before use, by measuring typical parameters of its qualitative evolution such as the colour, the hydrochloric acid and alcohol levels.

#### Transport

refer to MSDS

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