

Data Sheet Nr 1840 A

3-CHLOROPROPIONYL CHLORIDE 3CPCL



SYNONYMS

β-chloropropionyl chloride

APPEARANCE

Clear or yellowish liquid with pungent odor.

PHYSICAL PROPERTIES

Density (20°C):	$1,33 \text{ g/cm}^3$
Boiling point:	144°C
Melting point:	-32 °C

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

Molecular formula:	C ₃ H ₄ Cl ₂ O
Molecular weight:	127
CAS number:	625-36-5
EC number:	210-890-4

CHEMICAL PROPERTIES

- Hydrolyzes to hydrochloric acid and 3chloropropionic acid.
- Reacts with amines yielding 3-chloropropionyl amides.
- Reacts with alcohols yielding 3-chloroproprionyl esters.
- Reacts with mercaptans yielding 3-chloropropionyl thioesters.

USES

- Versatile organic synthesis intermediate.
- Has been used in the syntheses of polymers and functional liquid crystals
- Synthesis intermediate in the production of an array of pharmaceuticals.



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SPECIFICATION

Parameter	Guaranteed value	Method	Operating procedure
Color	Colorless or yellowish	Visual	-
Appearance	Clear liquid	Visual	-
Purity	≥ 98,0 %	Gas chromatography	GC - 434
Acryloyl chloride	\leq 0,50 %	Gas chromatography	GC - 434
Largest individual unspecified impurity	$\leq 0,5$ %	Gas chromatography	GC - 434
Total organic impurities	≤ 2,0 %	Gas chromatography	GC - 434

PACKAGING

Polyethylene lined metal drum containing 30, 60 or 250 kg.

Polyethylene drum containing 250 kg.

HANDLING PRECAUTIONS

- Physical-chemical hazard: Flash point (closed cup): 70 °C
- Health hazard : LD 50 (oral, rat): 1000 – 1470 mg/kg Corrosive, causes burns.
- Irritating to the eyes, skin and mucous membranes. Harmful if swallowed. Causes severe burns and eye damage. Fatal in case of inhalation.
- Recommended: When handling, wear approved safety eyewear, chemically resistant gloves and laboratory-appropriate clothing.

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In case of contact with skin or eyes, wash copiously with fresh water and seek medical attention if appropriate.

In case of inhalation of concentrated vapors remove the contaminated individual to fresh air and contact a physician.

• Neutralization: Neutralize by reaction with a cold caustic solution.

STORAGE

Keep in its original, closed container, shielded from direct sunlight in a well-ventilated area.

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.



