

PRODUCT IN FOCUS



Phenyl Chloroformate

INTRODUCTION

Phenyl chloroformate (PCF), an organic, volatile liquid, is an important reactant in chemical syntheses. It forms a series of intermediates that are further consumed to produce APIs, agrochemicals, and polymers. The chloroformate is also employed in proteomic research and itself is a phosgenation reagent.

Manufacture

Phenyl chloroformate is manufactured by phosgenation of phenol. Less hazardous synthesis route involves phenol, MDC, and triphosgene.

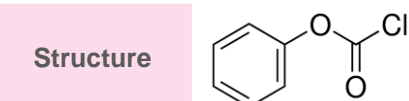
Synonyms	Chloroformic acid phenyl ester Phenyl chloridocarbonate
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CAS no.	1885-14-9
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EINECS no.	217-547-8
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Molecular formula	$C_7H_5ClO_2$
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Molecular weight	156.6
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Applications in APIs

Chloroformic acid phenyl ester is a key intermediate in the production of APIs:

API	Therapeutic Category
Rilmenidine	Anti-hypertensive
Sorafenib	Kinase inhibitor
Droxicam	Anti-inflammatory
Camazepam	Depressant
Leuprorelin	Prostate cancer treatment
Xamoterol hemifumerate	Cardiac stimulant

Applications in Intermediate Syntheses

PCF forms an important raw material for the following intermediate compounds:

- ✓ 1,4-Beneznedimethanol
- ✓ Ethyl phenyl carbonate
- ✓ Piperidine-2-ethanol
- ✓ Cbz-D-phenylalaninol
- ✓ 4,6-dimethoxy-2(phenoxy-carbonyl)aminopyrimidine
- ✓ Phenyl carbamate
- ✓ Benzyl phenyl carbonate

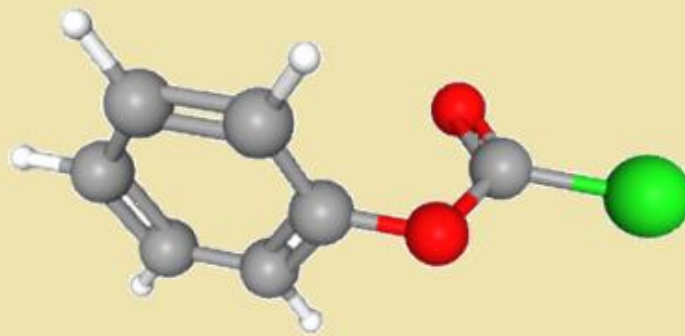
Applications in Agrochemicals

PCF is used to manufacture sulphonyl urea herbicides such as Amidosulfuron and Flazasulfuron.

Other Applications

The chloroformate exhibits further versatility as:

- ✓ Precursor of phenyl mixed anhydrides which are couplers in peptide synthesis
- ✓ Dehydrating agent to convert amides into nitriles



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SPECIFICATIONS

Test	Unit	Specifications
Appearance	-	Colorless to yellow liquid
Purity	%	Min 99.0
Organic solvent	%	Max 1.0
Phenol	%	Max 0.1
Diphenyl carbonate	%	Max 0.1
Hydrolysable chlorine	ppm	Max 3000
Moisture	%	Max 0.3

STORAGE

The product is stored at ambient temperature.

PACKING

- ☑ 225 kg UN-approved MS Composite drum
- ☑ ISO-tank

REACH Status

Not registered yet.

ExSyn offers PCF on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please get in touch with us.