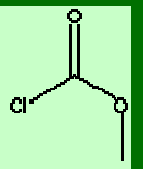
METHYL CHLOROFORMATE



PRODUCT IDENTIFICATION	
CAS NO.	79-22-1
EINECS NO.	201-187-3
FORMULA	CH_3OCOCl
MOL WT.	94.50
H.S. CODE	2915.13
TOXICITY	Oral rat: LD50: 270 mg/kg
SYNONYMS	Carbonchloridic Acid, Methyl Ester; Cathyl Chloride; Chlorameisensaeure Methylester (German): Chlorocarbonate De Methyle (French); Chlorocarbonic Acid Methyl Ester; Chloroformiate De Methyle (French); Methyl Chlorocarbonate; Methylchloorformiaat (Dutch); Methylester Kyseliny Chlormravenci; Methylester Kyseliny Chloruhlicite; Metilcloroformiato (Italian);
DERIVATION CLASSIFICATION	

PHYSICAL AND CHEMICAL PROPERTIES	
PHYSICAL STATE	clear liquid, sharp odor
MELTING POINT	-80 C
BOILING POINT	70 - 72 C (Decomposes)
SPECIFIC GRAVITY	1.223
SOLUBILITY IN WATER	Decomposes
VAPOR DENSITY	
AUTOIGNITION	450 C
NFPA RATINGS	Health: 4 ; Flammability: 3; Reactivity: 1
REFRACTIVE INDEX	
FLASH POINT	10 C
STABILITY	Stable under normal temperatures and conditions

APPLICATIONS

Phosgene (carbonyl dichloride, $COCl_2$) is a very reactive chemical intermediate to prepareisocyanates, chloroformates, isothiocyanates, isonitriles and acid chlorides as well as in the production of polymers including polyurethanes, polycarbonates, and polyureas. Phosgene , however, is extremely toxic gas associated strong safety hazards and handling precautions. It is listed on schedule 3 of the Chemical Weapons Convention. All production sites must be declared to the OPCW. Phosgene is almost entirely in captive consume in the production plant. Chloroformates are relatively less dangerous route to prepare important families of compounds, the carbonates and carbamates. Carbonates are prepared by reaction with alcohol (or phenol) and carbamates are by reaction with an amine (primary or secondary). Chloroformates are starting materials to prepare carbonate and carbamate derivatives that are used in the pharmaceutical and agrochemical industry.

SALES SPECIFICATION	
APPEARANCE	clear liquid
CONTENT	98.0% min
Cl	0.5% max

TRANSPORTATION	
PACKING	200kgs in drum
HAZARD CLASS	6.1 (Packing Group: I)
UN NO.	1182

OTHER INFORMATION

Hazard Symbols: T F+, Risk Phrases: 11/22/26/34, Safety Phrases: 9/16/26/28/33/36/37/39/45