

1 - Product and Company Information

ProductNameMETHYL 4-CHLOROACETOACETATE, 97%

2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Toxic if swallowed. Causes burns.

3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I
METHYL 4-CHLOROACETOACETATE	32807-28-6	251-230-5	None
Formula	C5H7ClO3		
Molecular Weight	150.56 AMU		
Synonyms	Butanoic acid, 4-chloro-3-oxo-, methyl ester (9CI * Methyl gamma-chloroacetoacetate * Methyl 4-chloro-3-oxobutanoate		

4 - First Aid Measures

AFTER INHALATION  
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER EYE CONTACT  
Assure adequate flushing of the eyes by separating the eyelids with fingers.

AFTER INGESTION  
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA  
Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL RISKS  
Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS  
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL  
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)  
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP  
Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors.  
Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING  
Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE  
Conditions of Storage: Keep tightly closed. Store in a cool dry place.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS  
Use only in a chemical fume hood. Safety shower and eye bath.

GENERAL HYGIENE MEASURES  
Wash thoroughly after handling. Discard contaminated clothing and shoes.

PERSONAL PROTECTIVE EQUIPMENT  
Special Protective Measures: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

9 - Physical and Chemical Properties

Appearance	Color: Very faintly yellow Form: Clear liquid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	212.0 - 213.0 °C	
MP/MP Range	N/A	
Flash Point	102 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	1.282 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

STABILITY  
Materials to Avoid: Acids, Bases, Oxidizing agents, Reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS  
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen chloride gas.

11 - Toxicological Information

RTECS NUMBER: AK5115000

ACUTE TOXICITY

LD50  
Intraperitoneal  
Rat  
77 MG/KG  
Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Respiratory depression.

LD50  
Intraperitoneal  
Mouse  
91 MG/KG  
Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Respiratory depression.

SIGNS AND SYMPTOMS OF EXPOSURE  
Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

ROUTE OF EXPOSURE  
Skin Contact: Causes skin irritation.  
Multiple Routes: Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract. Harmful if swallowed, inhaled, or absorbed through skin.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL  
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR  
UN#: 2810  
Class: 6.1  
PG: II  
Proper Shipping Name: Toxic liquid, organic, n.o.s.

IMDG  
UN#: 2810  
Class: 6.1  
PG: III  
Proper Shipping Name: Toxic liquid, organic, n.o.s.  
Marine Pollutant: No  
Severe Marine Pollutant: No  
Technical Name: Required

IATA  
UN#: 2810  
Class: 6.1  
PG: III  
Proper Shipping Name: Toxic liquid, organic, n.o.s.  
Inhalation Packing Group I: No  
Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES  
INDICATION OF DANGER: T  
Toxic.  
R-PHRASES: 25-34  
Toxic if swallowed. Causes burns.  
S-PHRASES: 26-36/37/39-45  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

COUNTRY SPECIFIC INFORMATION

Germany  
WGK: 3  
Self-Classification

16 - Other Information