ETHYL CHLORO ACETATE
CAS No 105-39-5

MATERIAL SAFETY DATA SHEET
SDS/MSDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1 Product identifiers
   Product name : Ethyl Chloro Acetate
   CAS-No. : 105-39-5
1.2 Relevant identified uses of the substance or mixture and uses advised against
   Identified uses : Laboratory chemicals, Industrial & for professional use only.
1.3 Details of the supplier of the safety data sheet
   Company : Central Drug House (P) Ltd
              7/28 Vardaan House
              New Delhi -110002
              INDIA
   Telephone : +91 11 49404040
   Email : care@cdhfinechemical.com
1.4 Emergency telephone number
   Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture
   Classification according to Regulation (EC) No 1272/2008
   Flammable liquids (Category 3), H226
   Acute toxicity, Oral (Category 3), H301
   Acute toxicity, Inhalation (Category 3), H331
   Acute toxicity, Dermal (Category 3), H311
   Serious eye damage (Category 1), H318
   Acute aquatic toxicity (Category 1), H400

   For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements
   Labelling according Regulation (EC) No 1272/2008
   Pictogram

   Signal word
   Hazard statement(s)
   H226 Flammable liquid and vapour.

H301 + H311 + H331  Toxic if swallowed, in contact with skin or if inhaled
H318  Causes serious eye damage.
H400  Very toxic to aquatic life.
Precautionary statement(s)
P261  Avoid breathing vapours.
P273  Avoid release to the environment.
P280  Wear protective gloves/ eye protection/ face protection.
P301 + P310  IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove
contact lenses, if present and easy to do. Continue rinsing.
P311  Call a POISON CENTER /doctor.

Supplemental Hazard  none
Statements

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and
toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Lachrymator.

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>C4H7ClO2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular weight</td>
<td>122.55 g/mol</td>
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<tr>
<td>CAS-No.</td>
<td>105-39-5</td>
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<td>EC-No.</td>
<td>203-294-0</td>
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<tr>
<td>Index-No.</td>
<td>607-070-00-7</td>
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</tbody>
</table>

Hazardous ingredients according to Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl chloroacetate</td>
<td>Flam. Liq. 3; Acute Tox. 3; Eye</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td></td>
<td>Dam. 1; Aquatic Acute 1;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H226, H301, H331, H311,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H318, H400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M-Factor - Aquatic Acute:</td>
<td>10</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Hydrogen chloride gas

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage class (TRGS 510): Flammable liquids

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form: clear, liquid
   Colour: colourless
b) Odour No data available
c) Odour Threshold No data available
d) pH No data available
e) Melting point/freezing point Melting point/range: -26 °C - lit.
f) Initial boiling point and boiling range 143 °C - lit.
g) Flash point 54 °C - closed cup
h) Evaporation rate No data available
i) Flammability (solid, gas) No data available

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j) Upper/lower flammability or explosive limits
   No data available

k) Vapour pressure
   10 mmHg at 38 °C
   3.3 mmHg at 20 °C

l) Vapour density
   No data available

m) Relative density
   1.145 g/cm3 at 25 °C

n) Water solubility
   No data available

o) Partition coefficient: n-octanol/water
   No data available

p) Auto-ignition temperature
   No data available

q) Decomposition temperature
   No data available

r) Viscosity
   No data available

s) Explosive properties
   No data available

t) Oxidizing properties
   No data available

9.2 Other safety information
   No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
   No data available

10.2 Chemical stability
   Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
   No data available

10.4 Conditions to avoid
   Heat, flames and sparks.

10.5 Incompatible materials
   Oxidizing agents

10.6 Hazardous decomposition products
   Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas
   Other decomposition products - No data available
   In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

   Acute toxicity
   LD50 Oral - Rat - 180 mg/kg(Ethyl chloroacetate)
   LC50 Inhalation - Rat - 4 h - 3,830 mg/m3(Ethyl chloroacetate)
   Lungs, Thorax, or Respiration:Dyspnea.
LD50 Dermal - Rabbit - 230 mg/kg(Ethyl chloroacetate)

**Skin corrosion/irritation**

**Serious eye damage/eye irritation**
Eyes - Rabbit(Ethyl chloroacetate)
Result: Severe eye irritation - 24 h

**Respiratory or skin sensitisation**
No data available(Ethyl chloroacetate)

**Germ cell mutagenicity**
No data available(Ethyl chloroacetate)

**Carcinogenicity**
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**
No data available(Ethyl chloroacetate)

**Specific target organ toxicity - single exposure**
No data available(Ethyl chloroacetate)

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available(Ethyl chloroacetate)

**Additional Information**
RTECS: AF9110000
Cough, Shortness of breath, Headache, Nausea, Vomiting(Ethyl chloroacetate)

**SECTION 12: Ecological information**

**12.1 Toxicity**

Toxicity to fish
LC50 - Danio rerio (zebra fish) - 1.48 mg/l - 96.0 h(Ethyl chloroacetate)

Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 1.6 mg/l - 48 h(Ethyl chloroacetate)

**12.2 Persistence and degradability**

Biodegradability
Biotic/Aerobic - Exposure time 28 d(Ethyl chloroacetate)
Result: 75 % - Readily biodegradable
Biotic/Aerobic - Exposure time 14 d(Ethyl chloroacetate)
Result: 78 % - Readily biodegradable

**12.3 Bioaccumulative potential**
No data available

**12.4 Mobility in soil**
No data available(Ethyl chloroacetate)

**12.5 Results of PBT and vPvB assessment**
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**
Very toxic to aquatic life.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 1181 IMDG: 1181 IATA: 1181

14.2 UN proper shipping name
ADR/RID:  ETHYL CHLOROACETATE
IMDG:  ETHYL CHLOROACETATE
IATA:  ETHYL CHLOROACETATE

14.3 Transport hazard class(es)
ADR/RID: 6.1 (3) IMDG: 6.1 (3) IATA: 6.1 (3)

14.4 Packaging group
ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user
No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H301 + H311 + Toxic if swallowed, in contact with skin or if inhaled
H331
H311 Toxic in contact with skin.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H400 Very toxic to aquatic life.

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.