Chloro Acetyl Chloride  
CAS No 79-04-9

MATERIAL SAFETY DATA SHEET  
SDS/MSDS

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers
Product name : Chloro Acetyl Chloride  
CAS-No. : 79-04-9

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-10002  
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]

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 3)
Acute toxicity, Oral (Category 3)
Specific target organ toxicity - repeated exposure (Category 1)
Skin corrosion (Category 1A)
Acute aquatic toxicity (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Reacts violently with water. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of serious damage to health by prolonged exposure through inhalation. Causes severe burns. Contact with water liberates toxic gas. Very toxic to aquatic organisms.

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

Signal word Danger
Hazard statement(s)
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.

Precautionary statement(s)
P261 Avoid breathing vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard information (EU)
EUH014 Reacts violently with water.
EUH029 Contact with water liberates toxic gas.


Hazard symbol(s)

R-phase(s)
R14 Reacts violently with water.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R29 Contact with water liberates toxic gas.
R35 Causes severe burns.
R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R50 Very toxic to aquatic organisms.

S-phase(s)
S 7/8 Keep container tightly closed and dry.
S 9 Keep container in a well-ventilated place.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : C₂H₂Cl₂O
Molecular Weight : 112.94 g/mol

Component | Concentration
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Chloroacetyl chloride | |
CAS-No. | 79-04-9
EC-No. | 201-171-6
Index-No. | 607-080-00-1

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
Take off contaminated clothing and shoes immediately. 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
burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

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

5. FIREFIGHTING MEASURES
5.1 Extinguishing media
Suitable extinguishing media
Dry powder

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 fire fighting if necessary.

5.4 Further information
Water hydrolyzes material liberating acidic gas which in contact with metal surfaces can generate flammable and/or explosive hydrogen gas.

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

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
Soak up with inert absorbent material and dispose of as hazardous waste. Do not flush with water. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE
7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

7.2 Conditions for safe storage, including any incompatibilities
Store under nitrogen. 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. Keep away from water. Never allow product to get in contact with water during storage.

Hydrolyses readily.
7.3 Specific end uses
    no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
    Components with workplace 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 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 a full-face respirator with
    multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to
    engineering controls. If the respirator is the sole means of 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).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

   a) Appearance Form: clear, liquid
   b) Odour no data available
   c) Odour Threshold no data available
   d) pH no data available
   e) Melting point/freezing point Melting point/range: -22 °C
   f) Initial boiling point and boiling range 105 - 106 °C
   g) Flash point 100 °C - closed cup
   h) Evaporation rate no data available
   i) Flammability (solid, gas) no data available
   j) Upper/lower flammability or explosive limits no data available
   k) Vapour pressure 80 hPa at 41.5 °C
       267 hPa at 68.4 °C
   l) Vapour density no data available
m) Relative density 1,419 g/mL at 20 °C, 1,418 g/mL at 25 °C
n) Water solubility insoluble
o) Partition coefficient: n-octanol/water no data available
p) Autoignition 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

10. STABILITY AND REACTIVITY
10.1 Reactivity
no data available
10.2 Chemical stability
no data available
10.3 Possibility of hazardous reactions
Reacts violently with water.
10.4 Conditions to avoid
Exposure to moisture.
10.5 Incompatible materials
Strong oxidizing agents, Strong bases, Alcohols
10.6 Hazardous decomposition products
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION
11.1 Information on toxicological effects
Acute toxicity
LD50 Oral - mouse - 220 mg/kg
LC50 Inhalation - rat - 1 h - 660 ppm
LD50 Dermal - rat - 662 mg/kg
Skin corrosion/irritation
Skin - Human - Corrosive
Serious eye damage/eye irritation
Eyes - Human - Corrosive
Respiratory or skin sensitization
no data available
Germ cell mutagenicity
no data available
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
Specific target organ toxicity - single exposure
Inhalation - Causes damage to organs.

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation  Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion  Toxic if swallowed. Causes burns.
Skin  Toxic if absorbed through skin. Causes skin burns.
Eyes  Causes eye burns.

Signs and Symptoms of Exposure
burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Additional Information
RTECS: AO6475000

12.  ECOLOGICAL INFORMATION
12.1  Toxicity
no data available

12.2  Persistence and degradability
no data available

12.3  Bioaccumulative potential
no data available

12.4  Mobility in soil
no data available

12.5  Results of PBT and vPvB assessment
no data available

12.6  Other adverse effects
Very toxic to aquatic life.

13.  DISPOSAL CONSIDERATIONS
13.1  Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14.  TRANSPORT INFORMATION
14.1  UN number
ADR/RID: 1752  IMDG: 1752  IATA: 1752

14.2  UN proper shipping name
ADR/RID: CHLOROACETYL CHLORIDE  IMDG: CHLOROACETYL CHLORIDE  IATA: Chloroacetyl chloride
Passenger Aircraft: Not permitted for transport
Cargo Aircraft: Not permitted for transport

14.3  Transport hazard class(es)
14.4 Packaging group
ADR/RID: I  
IMDG: I  
IATA: -

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

14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION
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.