

Material Safety Data Sheet

CHLOROACETYL CHLORIDE

Section 1 - Product And Company Identification

Substance	: Chloroacetyl Chloride
Trade Name	: Chloroacetyl Chloride
Chemical family	: Acid Chloride
Company	: Shiva Pharmachem Ltd. Plot No. 588, Village Luna – 391440 Taluka Padra, District: Vadodara, Gujarat, India.
Phone No.	: +91 2662-221021 / 224360
Fax No.	: +91 2662 223314

Section 2 – Hazards Identification

2.1 Classification of the substances or mixture

Classification according to regulations (EC) no 1272 / 2008 [EU- GHS/CLP]

Skin Corrosion (Category 1A)
Acute toxicity inhalation (category 3)
Acute toxicity dermal (category 3)
Acute toxicity oral, (category 3)
Acute aquatic toxicity (category 1)
Specific target organ toxicity – repeated exposure (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. On contact with water, liberates toxic gas. Very toxic to aquatic organism.

2.2 Labeling elements

Labeling according to EC 1272 / 2008 (CLP)

Pictogram



Single word

Danger

Hazard Elements

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burn and eye damage.
H331	Toxic if inhaled.
H372	Causes damage to organ through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

Material Safety Data Sheet

Precautionary statements

P261	Avoid breathing vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/ eye and face protection.
P301 + 310	If swallowed, immediately call physician/doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously for several minutes.
P310	Immediately call physician/doctor.

Supplemental hazard information (EU)

EUH014	Reacts violently with water.
EU029	On contact with water liberates toxic gas.

According to EU directives 67/548/EEC as amended

Hazard symbol(s)



R PHRASE (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 burn.
R48/23	Toxic; Danger of serious damage to health by prolonged exposure through inhalation.
R50	Very toxic to aquatic organism.

S PHRASE (s)

S7/8	Keep container tightly close and dry.
S9	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 you feel unwell, seek medical advice. (Show the label where possible)
S61	Avoid release to the environment. Refer to special instruction / safety data sheet.
2.3 Other hazards	None

Section 3 – Composition/ Information on Ingredients

Product Name	CAS No.	EC No.	Mol. Formula	Mol. Weight
Chloro Acetyl Chloride	79-04-9	201-171-6	C ₂ H ₂ Cl ₂ O	112.94 g / Mol

Material Safety Data Sheet

Section 4 – First Aid Measures

INHALATION:

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

SKIN CONTACT:

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

EYE CONTACT:

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

INGESTION:

If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Section 5 – Fire Fighting Measures

CONDITIONS OF FLAMMABILITY: Water hydrolyzes material liberating acidic gas which in contact with metal surfaces can generate flammable and/or explosive hydrogen gas.

EXTINGUISHING MEDIA: Suitable: Carbon dioxide. Dry chemical powder.
Unsuitable: Do not use water.

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.

Section 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. Pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Section 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.

Material Safety Data Sheet

STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place. Store under nitrogen.
Incompatible Materials: Do not allow contact with water.

SPECIAL REQUIREMENTS: Readily hydrolyzed in presence of water.

Section 8 – Exposure Control / Personal Protection

ENGINEERING CONTROLS

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

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

Special Protective Measures: Face shield (8-inch minimum).

Section 9 – Physical and Chemical Properties

Appearance Physical State	: Clear Liquid
Color	: Colorless
PH	: 2
BP/BP Range	: 105 - 106 °C
MP/MP Range	: -22 °C
Flash Point	: 100 °C Method – close cup
Flammability	: Not flammable
Auto ignition Temp	: Data not available
Oxidizing Properties	: Data not available
Explosive Properties	: Data not available
Explosion Limits Lower	: Data not available
Vapor Pressure	: 60 mmHg 41.5 °C
SG/Density	: 1.418 g/cm ³ at 20 °C
Viscosity	: 0.988 Pas 20 °C
Vapor Density	: 3.9 g/l
Solvent Content	: Nil
Water Content	: Not applicable, reacts violently with water.
Surface Tension	: 45.1 mN/m
Solubility	: Miscible with solvents like toluene, methylene chloride, ethylene dichloride.

Material Safety Data Sheet

Section 10 – Stability and Reactivity

STABILITY

Stable: Stable.

Conditions of Instability: May decompose on exposure to moist air or water.

Materials to Avoid: Strong bases, Alcohols, Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

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

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur.

Section 11 – Toxicological Information

RTECS NUMBER: A06475000

ACUTE TOXICITY

LD50 Oral

Rat

208 mg/kg

LC50

Inhalation

Rat

660 ppm 1H

LD50

Skin Rat

662 mg/kg

Remarks: Skin and Appendages: Skin: After topical exposure: Corrosive.

LD50

Oral Mouse

220 mg/kg

LC 50

Inhalation Mouse

1,300 ppm 2H

LD50

Intravenous Mouse

32 mg/kg

SIGNS AND SYMPTOMS OF EXPOSURE

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi,

Material Safety Data Sheet

chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

ROUTE OF EXPOSURE

Skin Contact: Causes burns.

Skin Absorption: Toxic if absorbed through skin.

Eye Contact: Causes burns. Lachrymator.

Inhalation: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Toxic if inhaled.

Ingestion: Toxic if swallowed.

Section 12 – Ecological Information

No data available

Section 13 – Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. 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.

Section 14 – Transport Information

RID/ADR

UN# : 1752

Class : 6.1

Packing Group : I

Sub risk : 8

Proper Shipping Name: Chloroacetyl chloride.

IMDG

UN# : 1752

Class : 6.1

Packing Group : I

Sub risk : 8

Proper Shipping Name: Chloroacetyl chloride.

Marine Pollutant: Yes

Severe Marine Pollutant: No

Technical Name: Required

IATA

UN# : 1752

Class : 6.1

Packing Group : -

Sub risk : 8

Proper Shipping Name: Chloroacetyl chloride.

Inhalation Packing Group I: Yes

Material Safety Data Sheet

Section 15 – Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 607-080-00-1

INDICATION OF DANGER: T-C-N

Toxic. Corrosive. Dangerous for the environment.

COUNTRY SPECIFIC INFORMATION:

Germany

WGK: 3

ID-Number: 2130

Classification according to appendix 3.

Section 16 – Additional Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Shiva Pharmachem Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Shiva Pharmachem Ltd has been advised of the possibility of such damages.