



MATERIAL SAFETY DATA SHEETS

129

Chloroethyl chloroformate

1. CHEMICAL IDENTITY

Chemical Name : Chloroethyl chloroformate

Chemical Classification: Corrosive

Trade Name :

Synonyms: 2-Chloroethyl chloroformate, 2-Chloroethyl chlorocarbonate, Carbonochloridic acid, 2-chloroethyl ester

Formula : C₃H₄Cl₂O₂

CAS No: 627-11-2

UN No: 2742

Regulated Identification

Shipping Name : Poisonous liquid, corrosive

Hazchem Code : 3W

Codes / Label : Class 6.1, Corrosive

Hazardous Waste ID No : 6

| HAZARDOUS INGREDIENTS | C.A.S. No. | HAZARDOUS INGREDIENTS | C.A.S. No. |
|-----------------------|------------|-----------------------|------------|
|-----------------------|------------|-----------------------|------------|

| | | | |
|---|---------------------------|---|--|
| 1 | Chloroethyl chloroformate | 3 | |
| 2 | | 4 | |

2. PHYSICAL / CHEMICAL DATA

Boiling Pt. °C: 150 - 160

Physical State: Liquid

Appearance: Colourless

Melting Pt °C: -48

Vapour Pressure @ 35°C mmHg: 13 mm Hg at 48-49 deg C

Odour: Irritating

Vapour Density(Air =1):

Solubility in water at 30°C g/100ml:

Slightly soluble

Others: Decomposed by hot water and alkaline solutions.

Specific Gravity (Water =1): 1.3847 @ 20 deg C/4 deg C

pH :

3. FIRE / EXPLOSION HAZARD DATA

Flammability :

LEL:

Flash Point °C in OC:

TDG Flammability:

UEL:

Flash Point °C in CC: 70

Autoignition Temperature °C :

Explosion sensitivity to impact:

Explosion sensitivity to static Electricity:

Hazardous Combustion Products : When decomposed, toxic gases and vapours (CO, HCl) are released.

Hazardous Polymerization : Will not occur.

Combustible Liquid: Yes

Explosive Material: No

Corrosive Material Yes

Flammable Material: No

Oxidiser : No

Others:

Pyrophoric Material: No

Organic Peroxide : No

4. REACTIVITY DATA

Chemical Stability : Stable if not exposed to moist air and water

Incompatibility with other material : Acids, hot water, alcohols, strong bases and amines

Reactivity : Reacts with acids, alcohols, strong bases and amines.

Hazardous : CO, HCl

Reaction Products

5. HEALTH HAZARD DATA

Routes of entry: Inhalation, Ingestion, Skin and Eyes

Effects of Exposure / Symptoms:

This is a corrosive liquid. Exposure causes iachrymation. It destroys the tissue of mucous membranes, upper respiratory tract and causes burns to the eyes and skin. Even skin contact may cause fatalities. Symptoms of exposure include burning sensation, coughing, wheezing, shortness of breath, nausea, vomiting. Repeated exposure may cause asthma.

Emergency Treatment :

Inhalation: Move patient to fresh air. Monitor for respiratory distress. Administer oxygen and assist ventilation as required. Treat bronchospasm with beta2 agonist and corticosteroid aerosols.

Skin: Remove contaminated clothing and wash exposed area with soap and water. Treat dermal irritation or burns with standard topical therapy. Call a physician.

Eyes: Irrigate exposed eyes with copious amounts of tepid water for at least 15 minutes. If irritation, pain, swelling, lacrimation, or photophobia persist, the patient should be seen in a health care facility.

Ingestion: Do not induce vomiting - following ingestion and/or prior to gastric evacuation and give 1-2 cups of milk or water.

LD50 (oral-rat) mg/kg: 256 mg/kg (Mouse)

STEL:

LC50 (rat) mg/kg:

Odour Threshold:

Permissible Exposure Limit:

TLV (ACGIH) :

| NFPA Hazard | Health | Flammability | Reactivity | Special |
|-------------|--------|--------------|------------|---------|
| Signals | | 3 | 2 | |

6. PREVENTIVE MEASURES

Personal Protective Equipment : Impervious clothing, gloves, face-shields, splash-proof goggles and respirators

Handling : Avoid direct physical contact. Use appropriate, approved safety equipment. Untrained individuals should not handle this chemical or its container. Handling should occur in a chemical fume hood.

Storage : Store in a cool, dry place away from heat and open flame. Keep the container closed to ensure no contact with moist air.

Precautions :

7. EMERGENCY / FIRST AID MEASURES

FIRE:

Fire Extinguishing Media : Dry chemical, foam, carbon dioxide

Special Procedure : Under fire conditions container explosion may occur. Use water spray to keep the fire-exposed containers cool.

Unusual Hazards :

EXPOSURE: First Aid Measures:

Inhalation: Move patient to fresh air. Monitor for respiratory distress. Administer oxygen and assist ventilation as required. Treat bronchospasm with beta2 agonist and corticosteroid aerosols.

Skin: Remove contaminated clothing and wash exposed area with soap and water. Treat dermal irritation or burns with standard topical therapy. Call a physician.

Eyes: Irrigate exposed eyes with copious amounts of tepid water for at least 15 minutes. If irritation, pain, swelling, lacrimation, or photophobia persist, the patient should be seen in a health care facility.

Ingestion: Do not induce vomiting - following ingestion and/or prior to gastric evacuation and give 1-2 cups of milk or water.

Antidotes / Dosages:

SPILLS :

Steps To Be Taken : Shut off all ignition sources. Ventilate the area of spill. Cover the spilled material with sand and transfer to a container. Wash surface with detergent and water.

Waste Disposal Method: Collect all wastes in air-tight bags for eventual disposal.

8. ADDITIONAL INFORMATION / REFERENCES

9. MANUFACTURERS / SUPPLIERS DATA

| | |
|--------------------------------|----------------------------------|
| NAME OF FIRM : | Contact person |
| MAILING ADDRESS : | in Emergency : |
| TELEPHONE / TELEX NOS : | Local Bodies involved : |
| TELEGRAPHIC ADDRESS : | Standard Packing : |
| OTHERS : | Trem Card Details / Ref : |

10. DISCLAIMER

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Total No. of Pages: 3