Carbonochloridic acid, 2-chloroethyl ester (CAS 627-11-2) MSDS

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

   Product name: 2-Chloroethyl chloroformate

2. HAZARDS IDENTIFICATION

   Classification of the substance or mixture
   According to Regulation (EC) No 1272/2008
   Acute toxicity, Inhalation (Category 3)
   Skin corrosion (Category 1B)
   Toxic by inhalation. Causes burns.

   Label elements
   Pictogram

   Signal word: Danger
   Hazard statement(s)
   H314 Causes severe skin burns and eye damage.
   H331 Toxic if inhaled.
   Precautionary statement(s)
   P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
   P280 Wear protective gloves/protective clothing/eye protection/face protection.
   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.
   Hazard symbol(s)
   T Toxic
   R-phrase(s)
   R23 Toxic by inhalation.
   R34 Causes burns.
   S-phrase(s)
   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).

3. COMPOSITION/INFORMATION ON INGREDIENTS

   Synonyms: 2-Chloroethoxycarbonyl chloride
   Formula: C3H4Cl2O2
   Molecular Weight: 142.97 g/mol

   CAS-No. EC-No. Classification Concentration
   2-Chloroethyl chloroformate 627-11-2 210-982-4 - Acute Tox. 3; Skin Corr. 1B; H314, H331 -
For the full text of the H-Statements mentioned in this Section, see Section 16.

4. 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. 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.

5. FIRE-FIGHTING MEASURES

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

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage
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.

Recommended storage temperature: 2 - 8 °C
Store under inert gas. Moisture sensitive. Vent periodically. Over time, pressure may increase causing containers to burst. Handle and open container with care.

8. EXPOSURE CONTROLS/PERSOAL PROTECTION

Personal protective equipment
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).

Hand protection
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

**Eye protection**
Tightly fitting safety goggles. Faceshield (8-inch minimum).

**Skin and body protection**
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
- **Form**: clear, liquid
- **Colour**: colourless

**Safety data**
- **pH**: no data available
- **Melting point**: no data available
- **Boiling point**: 155 - 156 °C - lit.
- **Flash point**: 70 °C - closed cup
- **Ignition temperature**: no data available
- **Lower explosion limit**: no data available
- **Upper explosion limit**: no data available
- **Vapour pressure**: 55.2 hPa at 55 °C
  
  15.9 hPa at 20 °C
- **Density**: 1.385 g/mL at 25 °C
- **Water solubility**: no data available

### 10. STABILITY AND REACTIVITY

**Chemical stability**
Stable under recommended storage conditions.

**Conditions to avoid**
no data available

**Materials to avoid**
Alcohols, acids, Strong bases, Amines

**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**
no data available

**Skin corrosion/irritation**
no data available

**Serious eye damage/eye irritation**
no data available

**Respiratory or skin sensitization**
no data available
Germ cell mutagenicity
Genotoxicity in vitro - Histidine reversion (Ames)

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
no data available

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
May be harmful if swallowed. Causes burns.

Skin
May be harmful if absorbed through skin. Causes skin burns.

Eyes
Causes eye burns.

Signs and Symptoms of Exposure
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, Shortness of breath, Headache, Nausea

Additional Information
RTECS: LQ5950000

12. ECOLOGICAL INFORMATION
Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS
Product
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION
ADR/RID
UN-Number: 3277 Class: 6.1 (8) Packing group: II
Proper shipping name: CHLOROFORMATES, TOXIC, CORROSIVE, N.O.S. (2-Chloroethyl chloroformate)
IMDG
UN-Number: 3277 Class: 6.1 (8) Packing group: II EMS-No: F-A, S-B

Proper shipping name: CHLOROFORMATES, TOXIC, CORROSIVE, N.O.S. (2-Chloroethyl chloroformate)

Marine pollutant: No

IATA
UN-Number: 3277 Class: 6.1 (8) Packing group: II
Proper shipping name: Chloroformates, toxic, corrosive, n.o.s. (2-Chloroethyl chloroformate)

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3

<table>
<thead>
<tr>
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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 this document is based on the resent 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. Guidechem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.