

# Material Safety Data Sheet

## Chloroacetyl chloride

ACC# 00956

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Chloroacetyl chloride

**Catalog Numbers:** AC147290000, AC147290010, AC147290050, AC147291000, AC147292500

**Synonyms:** Chloracetic chloride; Chloroacetic acid chloride.

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
79-04-9	Chloroacetyl chloride	98	201-171-6

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear colorless to slightly yellow liquid.

**Danger!** Toxic if swallowed, inhaled or absorbed through the skin. Danger of serious damage to health by prolonged exposure through inhalation. Causes burns by all exposure routes. Reacts violently with water. Lachrymator (substance which increases the flow of tears). May cause pulmonary edema. Very toxic to aquatic organisms.

**Target Organs:** Central nervous system, respiratory system, gastrointestinal system, eyes, skin.

#### Potential Health Effects

**Eye:** Causes severe eye burns. Lachrymator (substance which increases the flow of tears).

**Skin:** Causes skin burns. Toxic in contact with skin.

**Ingestion:** Poison by ingestion. Causes gastrointestinal tract burns.

**Inhalation:** May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract. Toxic if inhaled.

**Chronic:** Repeated exposure may cause central nervous system damage.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** POISON material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn. Substance is noncombustible. Decomposes at high temperatures, resulting in toxic and corrosive products.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. DO NOT USE WATER!

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 2; Special Hazard: -W-

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Provide ventilation. Do not expose spill to water. Do not get water inside containers. Evacuate unnecessary personnel. Do not let this chemical enter the environment.

## Section 7 - Handling and Storage

**Handling:** Do not allow water to get into the container because of violent reaction. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Do not allow contact with water. Use only in a chemical fume hood.

**Storage:** Store in a cool, dry place. Store in a tightly closed container. Corrosives area. Water free area. Store under nitrogen.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Chloroacetyl chloride	0.05 ppm TWA; 0.15 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route	0.05 ppm TWA; 0.2 mg/m <sup>3</sup> TWA	none listed

**OSHA Vacated PELs:** Chloroacetyl chloride: 0.05 ppm TWA; 0.2 mg/m<sup>3</sup> TWA

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** clear colorless to slightly yellow

**Odor:** Pungent odor.

**pH:** Not available.

**Vapor Pressure:** 62 mbar @ 20 deg C

**Vapor Density:** 3.9 (Air=1)

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 105 deg C @ 760 mm Hg

**Freezing/Melting Point:** -22 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Insoluble.

**Specific Gravity/Density:** 1.420

**Molecular Formula:** C<sub>2</sub>H<sub>2</sub>Cl<sub>2</sub>O

**Molecular Weight:** 112.94

## Section 10 - Stability and Reactivity

**Chemical Stability:** Decomposes when heated. Reacts violently with water.

**Conditions to Avoid:** Incompatible materials, exposure to moist air or water, heat.

**Incompatibilities with Other Materials:** Alcohols, strong bases.

**Hazardous Decomposition Products:** Hydrogen chloride, phosgene, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 79-04-9: A06475000

**LD50/LC50:**

**CAS#** 79-04-9:

Inhalation, mouse: LC50 = 1300 ppm/2H;

Inhalation, rat: LC50 = 660 ppm/1H;

Oral, mouse: LD50 = 220 mg/kg;

Oral, rat: LD50 = 208 mg/kg;

Skin, rat: LD50 = 662 mg/kg;

**Carcinogenicity:**

**CAS#** 79-04-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found  
**Teratogenicity:** No information found  
**Reproductive Effects:** No information found  
**Mutagenicity:** No information found  
**Neurotoxicity:** No information found  
**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.  
**Environmental:** Chloroacetyl chloride will react with surface soil moisture to produce hydrochloric acid.  
**Physical:** No information available.  
**Other:** Do not empty into drains.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	CHLOROACETYL CHLORIDE	CHLOROACETYL CHLORIDE
<b>Hazard Class:</b>	6.1	6.1(8)
<b>UN Number:</b>	UN1752	UN1752
<b>Packing Group:</b>	I	I

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 79-04-9 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 79-04-9: immediate, reactive.

**Section 313** No chemicals are reportable under Section 313.

**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 79-04-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

T C N

**Risk Phrases:**

R 14 Reacts violently with water.

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 35 Causes severe burns.

R 50 Very toxic to aquatic organisms.

R 48/23 Toxic : danger of serious damage to health by prolonged exposure through inhalation.

**Safety Phrases:**

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 7/8 Keep container tightly closed and dry.

S 9 Keep container in a well-ventilated place.

S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

**WGK (Water Danger/Protection)**

CAS# 79-04-9: 2

**Canada - DSL/NDSL**

CAS# 79-04-9 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D1A, E, F.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 79-04-9 is listed on the Canadian Ingredient Disclosure List.

**Section 16 - Additional Information**

**MSDS Creation Date:** 12/15/1997

**Revision #6 Date: 6/18/2008**

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