

# Material Safety Data Sheet

## Cyanuric Chloride, 99% (Titr.)

ACC# 81821

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Cyanuric Chloride, 99% (Titr.)

**Catalog Numbers:** AC405990000, AC405990010, AC405992500

**Synonyms:** 2,4,6-Trichloro-1,3,5-Triazine; 2,4,6-Trichloro-S-Triazine.

**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
108-77-0	Cyanuric Chloride	99	203-614-9

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear almost colorless crystals.

**Warning!** Corrosive. Water-reactive. Lachrymator (substance which increases the flow of tears). Causes severe eye irritation and possible burns. Harmful if swallowed. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns. May cause severe skin irritation and possible burns.

**Target Organs:** Respiratory system, eyes, skin.

#### Potential Health Effects

**Eye:** Contact with eyes may cause severe irritation, and possible eye burns. Lachrymator (substance which increases the flow of tears).

**Skin:** Causes moderate skin irritation. Causes redness and pain.

**Ingestion:** Harmful if swallowed. May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns.

**Inhalation:** May be fatal if inhaled. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Causes severe respiratory tract irritation with possible burns.

**Chronic:** May cause digestive tract disturbances.

### Section 4 - First Aid Measures

**Eyes:** Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

**Skin:** Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation.

**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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Water Reactive. Material will react with water and may release a flammable and/or toxic gas. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**Extinguishing Media:** For large fires, use water spray, fog, or alcohol-resistant foam. Do NOT get water inside containers. Do NOT use straight streams of water. For small fires, use dry chemical, dry sand, alcohol-resistant foam.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** N/A

**Upper:** N/A

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 1; Special Hazard: -W-

### Section 6 - Accidental Release Measures

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

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation. Do not get water inside containers.

## Section 7 - Handling and Storage

**Handling:** Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Use with adequate ventilation. Discard contaminated shoes.

**Storage:** Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Keep containers tightly closed.

## 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 adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Cyanuric Chloride	none listed	none listed	none listed

**OSHA Vacated PELs:** Cyanuric Chloride: No OSHA Vacated PELs are listed for this chemical.

### 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 minimize contact with skin.

**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:** Crystals

**Appearance:** clear almost colorless

**Odor:** pungent odor

**pH:** Not available.

**Vapor Pressure:** 2.7 hPa @ 70 C

**Vapor Density:** 6.4

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** 192 deg C

**Freezing/Melting Point:**146 deg C

**Decomposition Temperature:**> 192 deg C

**Solubility:** Insoluble.

**Specific Gravity/Density:**1.3200g/cm3

**Molecular Formula:**C3Cl3N3

**Molecular Weight:**184.41

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Incompatible materials, ignition sources, dust generation, acids, excess heat, oxidizers.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

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

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

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 108-77-0: XZ1400000

### LD50/LC50:

CAS# 108-77-0:

Draize test, rabbit, eye: 50 ug/24H Severe;

Draize test, rabbit, skin: 500 mg/24H Moderate;

Inhalation, mouse: LC50 = 10 mg/m3/2H;

Oral, mouse: LD50 = 350 mg/kg;

Oral, rat: LD50 = 485 mg/kg;

### Carcinogenicity:

CAS# 108-77-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** No information available.

**Reproductive Effects:** No information available.  
**Mutagenicity:** No information available.  
**Neurotoxicity:** No information available.  
**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.  
**Environmental:** Terrestrial: Very low potential to leach into groundwater. Aquatic: Will absorb into sediments. Atmospheric: Remains in vapor phase with a half life of 4300 days. Will not bioconcentrate and very low biodegradation potential.  
**Physical:** No information available.  
**Other:** No information available.

## 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>	Not regulated as a hazardous material	CYANURIC CHLORIDE
<b>Hazard Class:</b>		8
<b>UN Number:</b>		UN2670
<b>Packing Group:</b>		III

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 108-77-0 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 # 108-77-0: 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# 108-77-0 can be found on the following state right to know lists: New Jersey.

#### 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:

XI

#### Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

#### Safety Phrases:

S 28A After contact with skin, wash immediately with plenty of water

**WGK (Water Danger/Protection)**

CAS# 108-77-0: 1

**Canada - DSL/NDSL**

CAS# 108-77-0 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of E, D2A, B6.

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# 108-77-0 is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 8/24/1998

**Revision #3 Date:** 10/03/2005

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