



# Safety Data Sheet

## Section 01 - Product And Company Identification

<b>Product Identifier</b>	Cyanuric Acid
<b>Other Means of Identification</b>	Isocyanuric acid, tricyanic acid, s-2,4,6-triazinetriol, trihydroxycyanidine, 2,4,6-trihydroxy-1,3,5-triazine, 1,3,5-triazine-2,4,6-triol
<b>Product Use and Restrictions on Use</b>	Chlorine stabilizer, elastomer curative, whitening agent
<b>Initial Supplier Identifier</b>	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
<b>Prepared By</b>	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
<b>24-Hour Emergency Phone</b>	Phone: 1 (306) 664 – 2522

## Section 02 - Hazard Identification

### GHS-Classification

This product has been assessed in accordance with the Hazardous Products Regulations and is not classified as a hazardous substance or mixture.

## Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Cyanuric acid	108-80-5	100%	

## Section 04 - First Aid Measures

<b>Inhalation</b>	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.
<b>Skin Contact / Absorption</b>	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
<b>Eye Contact</b>	Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If irritation persists, seek medical attention.
<b>Ingestion</b>	Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth with water. If discomfort occurs, seek medical attention.
<b>Additional Information</b>	Not Available

## Section 05 - Fire Fighting Measures

<b>Suitable Extinguishing Media</b>	For small fires, use dry chemical powder. For large fires, use water spray, fog or foam.
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<b>Unsuitable Extinguishing Media</b>	Do not use water jet.
<b>Specific Hazards Arising From the Chemical</b>	Carbon oxides, nitrogen oxides, cyanic acid and cyanide gas.
<b>Special Protective Equipment for Fire-Fighters</b>	Wear NIOSH-approved self-contained breathing apparatus and protective gear.
<b>Further Information</b>	Not Available

## Section 06 - Accidental Release Measures

<b>Personal Precautions / Protective Equipment / Emergency Procedures</b>	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Flush with water to remove any residue.
<b>Environmental Precautions</b>	Prevent material from entering sewers.
<b>Methods and Materials for Containment and Cleaning Up</b>	Small Spills: Contain spill with earth, sand or absorbent material which does not react with spilled material. Shovel into clean, dry, labelled containers and cover. Flush area with water. Large Spills: Contact fire and emergency services and supplier for advice.

## Section 07 - Handling and Storage

<b>Precautions for Safe Handling</b>	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Keep away from high temperatures. Do not use near welding operations, flames or hot surfaces. Avoid generating mist or dust. Use in areas with adequate ventilation. Use dust-tight containers. Prevent accumulation of dust. Label containers. Keep containers closed when not in use. Empty containers may contain residues which are hazardous.
<b>Conditions for Safe Storage</b>	Store in a cool, dry (hygroscopic chemical), well-ventilated place and away from sources of ignition and incompatible materials. Emptied container retains vapour and product residue. It is good practice to limit quantity of material in storage; restrict access to storage area; post warning signs when appropriate; keep storage area separate from populated work areas.
<b>Incompatibilities</b>	Strong oxidizers, ethanol

## Section 08 - Exposure Controls and Personal Protection

### Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Cyanuric acid	WEELs	WEEL-TWA	10mg/m <sup>3</sup> , total; 5mg/m <sup>3</sup> respirable

### Engineering Control(s)

<b>Ventilation Requirements</b>	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
<b>Other</b>	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

### Protective Equipment

<b>Eyes/Face</b>	No specific requirements, but it is good practice to wear chemical safety goggles.
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<b>Hand Protection</b>	No specific requirements, but it is good practice to prevent skin contact by wearing impervious gloves of chemical resistance.
<b>Skin and Body Protection</b>	No specific requirements, but it is good practice to prevent skin contact by wearing body suits, aprons and/or coveralls.  No special footwear is required other than what is mandated at place of work.
<b>Respiratory Protection</b>	NIOSH-approved respirator for dust should be worn.
<b>Thermal Hazards</b>	Not Available

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## **Section 09 - Physical and Chemical Properties**

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### **Appearance**

<b>Physical State</b>	Solid
<b>Colour</b>	White crystals
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not Applicable

### **Property**

<b>pH</b>	4.8-5.2 (10% solution)
<b>Melting Point/Freezing Point</b>	360°C
<b>Initial Boiling Point and Boiling Range</b>	Sublimes and dissociates to isocyanuric acid
<b>Flash Point</b>	Not Available
<b>Evaporation Rate</b>	Negligible
<b>Flammability</b>	May be combustible at high temperature.
<b>Upper Flammable Limit</b>	Not Available
<b>Lower Flammable Limit</b>	Not Available
<b>Vapour Pressure (mm Hg, 20°C)</b>	Not Applicable
<b>Vapour Density (Air=1)</b>	Not Available
<b>Relative Density</b>	Not Available
<b>Solubility(ies)</b>	2000mg/L at 25°C in water
<b>Partition Coefficient: n-octanol/water</b>	Log P <sub>ow</sub> = 0.61
<b>Auto-ignition Temperature</b>	Not Available
<b>Decomposition Temperature</b>	320-330°C
<b>Viscosity</b>	Not Applicable
<b>Explosive Properties</b>	Reported violent reaction with ethanol and with chlorine to form a spontaneously combustible material.
<b>Specific Gravity (Water=1)</b>	1.75 at 25°C (anhydrous)

**% Volatiles by Volume** Not Available

**Formula** C<sub>3</sub>H<sub>3</sub>N<sub>3</sub>O<sub>3</sub>

**Molecular Weight** 129.08

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## Section 10 - Stability and Reactivity

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**Reactivity** Ammonia-chlorine mixtures are explosive if warmed or if chlorine is in excess, owing to formation of nitrogen trichloride. Hydrazine, hydroxylamine and calcium nitride ignite in chlorine, and nitrogen triiodide may explode on contact with chlorine.

**Stability** Stable under normal conditions

**Possibility of Hazardous Reactions** None known

**Conditions to Avoid** Temperatures above 300°C

**Incompatible Materials** Strong oxidizers, ethanol

**Hazardous Decomposition Products** Carbon oxides, nitrogen oxides, cyanic acid and cyanide gas

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## Section 11 - Toxicological Information

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### Acute Toxicity

Component	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	LC <sub>50</sub>
Cyanuric acid	3400mg/kg (mouse)	>5000mg/kg (rabbit)	Not Available

### Chronic Toxicity – Carcinogenicity

Component	IARC
Cyanuric Acid	This product is not known to be carcinogenic.

**Skin Corrosion/Irritation** May cause slight irritation.

**Serious Eye Damage/Irritation** Mildly irritating to eyes.

**Ingestion** May be mildly toxic by ingestion.

**Inhalation** May cause slight respiratory tract irritation. Symptoms include a burning sensation, coughing, wheezing, laryngitis, shortness of breath, nausea, and vomiting.

**Respiratory or Skin Sensitization** Not reported as a human respiratory sensitizer.

**Germ Cell Mutagenicity** The available evidence does not indicate that cyanuric acid is mutagenic.

**Reproductive Toxicity** The limited evidence available does not indicate that cyanuric acid causes reproductive toxicity.

**STOT-Single Exposure** Not Available

**STOT-Repeated Exposure** Potential chronic effects include repeated digestion affecting the kidneys and metabolism. Repeated or prolonged exposure is not known to aggravate medical condition.

**Aspiration Hazard** Not Available

**Synergistic Materials** Not Available

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## Section 12 - Ecological Information

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### Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Cyanuric Acid	EC <sub>50</sub> (Selenastrum capricornutum, 72hr): 620mg/L	LC <sub>50</sub> (Lepomis macrochirus, 96hr): >1000mg/L	EC <sub>50</sub> (Daphnia magna, 21d): 65.9mg/L
<b>Biodegradability</b>	The product itself and its products of degradation are not toxic. Hazardous short term degradation products are not likely. However, long term degradation products may arise.		
<b>Bioaccumulation</b>	Not Available		
<b>Mobility</b>	If released to soil, cyanuric acid is expected to have high mobility based upon an estimated K <sub>oc</sub> of 58.		
<b>Other Adverse Effects</b>	Not Available		

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## Section 13 - Disposal Considerations

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<b>Waste From Residues/Unused Products</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
<b>Contaminated Packaging</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

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## Section 14 - Transport Information

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<b>UN Number</b>	Not Regulated
<b>UN Proper Shipping Name</b>	Not Regulated
<b>Transport Hazard Class(es)</b>	Not Regulated
<b>Packaging Group</b>	Not Regulated
<b>Environmental Hazards</b>	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
<b>Special Precautions</b>	Not Available
<b>Transport in Bulk</b>	Not Available

### TDG

<b>Other</b>	Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.
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**TDG PRODUCT CLASSIFICATION:** This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

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## Section 15 - Regulatory Information

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**NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.**

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## Section 16 - Other Information

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**Preparation Date** August 6, 2015

**Note:** The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct

employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

**Attention: Receiver of the chemical goods / SDS coordinator**

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution<sup>®</sup> initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

**References:**

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA

**ClearTech Industries Inc. - Locations**

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