



Safety Data Sheet

Section 01 Identification

Product Identifier	Cyanuric Acid
Other Means of Identification	Isocyanuric acid; 1,3,5-triazinane-2,4,6-trione
Product Use and Restrictions on Use	Chlorine stabilizer, elastomer curative, whitening agent
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7 Phone: 800.387.7503 Fax: 888.281.8109 www.cleartech.ca
Prepared By	ClearTech Industries Inc. technical writer
24-Hour Emergency Phone	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.

Hazards Not Otherwise Classified

Not available

Supplemental Information

Not available

Section 03 Composition / Information on Ingredients

Ingredients:

Chemical name	Common name(s)	CAS number	Concentration (w/w%)
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione	Cyanuric acid	108-80-5	>99.0%

Section 04 First-Aid Measures

Description of necessary first-aid measures

Inhalation	Get medical advice / attention if you feel unwell or are concerned.
Ingestion	Get medical advice / attention if you feel unwell or are concerned.
Skin contact	Rinse skin with lukewarm, gently flowing water / shower for 5 minutes or until product is removed. If skin irritation occurs or if you feel unwell: Get medical advice / attention.
Eye contact	Gently brush product off face. Do not rub eyes. Let the eyes water naturally for a few minutes. Look right and left, then up and down. If particle / dust does not come out, cautiously rinse eye with lukewarm gently flowing water for 5 minutes or until particle / dust is removed, while holding the eyelids open. If eye irritation persists: Get medical advice / attention. Do not attempt to manually remove anything from the eyes.

Most important symptoms and effects, both acute and delayed

Inhalation	May cause respiratory irritation.
Ingestion	May cause discomfort or nausea.
Skin contact	May cause transient irritation.
Eye contact	May cause eye irritation and redness.
Further information	For further information see Section 11 Toxicological Information.

Section 05 Fire Fighting Measures

Suitable extinguishing media	Extinguish fire using extinguishing agents suitable for the surrounding fire.
Unsuitable extinguishing media	Water jets are not recommended in fires involving chemicals.
Specific hazards arising from the chemical	In the event of a fire oxides of nitrogen, and isocyanate may be released. Thermal decomposition occurs at 320-370 °C.
Special protective equipment for fire-fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Section 06 Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment (See Section 08 Exposure Controls and Personal Protection). Stay upwind, ventilate area.
Environmental Precautions	Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.
Methods and Materials for Containment and Cleaning Up	Dry sweeping is not recommended. Pre-dampening the material or use of a vacuum is preferred. Shovel into clean, dry, labeled containers and cover. Flush area with water.

Section 07 Handling and Storage

Precautions for Safe Handling	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. Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label. Have suitable emergency equipment for fires, spills and leaks readily available.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Protect label and keep it visible.
Incompatibilities	Oxidizing agents, such as oxygen, hydrogen peroxide, sulphuric and nitric acids, hypochlorites and permanganates.

Section 08 Exposure Controls and Personal Protection

Exposure limits

There are no known exposure limits for this product.

Engineering controls

Ventilation Requirements Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other No specific recommendations beyond the required hygiene facilities at the place of work.

Protective equipment

The following are recommendations only. It is the responsibility of the employer / user to conduct a hazard assessment of the process in which this product being used and determine the proper engineering controls and PPE for their process. Additional regulatory and safety information should be sought from local authorities and, if needed, a professional industrial hygienist.

Eye and face protection Where there is potential eye or face exposure, safety glasses are recommended. Contact lenses are not recommended; they may contribute to severe eye injury.

Hand and body protection Where handling this product it is recommended that skin contact is avoided.

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment.

Thermal hazards Not available

Section 09 Physical and Chemical Properties

Appearance

Physical state Solid
Colour White
Odour Odourless
Odour threshold Not applicable

Property

pH 4-5 (0.2% solution)
Melting point / freezing point ~330 °C
Initial boiling point and boiling range Decomposes
Flash point Not applicable
Evaporation rate Not available
Flammability Not flammable
Upper flammable limit Not available
Lower flammable limit Not available
Vapour pressure Negligible
Vapour density Not available
Relative density 0.80-0.85 g/cm³
Solubility 2 g/L @ 25 °C (water)
Partition coefficient: n-octanol/water -1.31 @ 25 °C
Auto-ignition temperature Not available
Decomposition temperature 320-370 °C
Viscosity Not applicable
Specific gravity Not applicable
Particle characteristics Particle size: Not available
Particle shape: Crystalline granules or powder

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Formula $C_3H_3N_3O_3$
Molecular weight 129.07 g/mol

Section 10 Stability and Reactivity

Reactivity May react with chlorine gas to form an explosive compound.
Stability This product is stable if stored according to the recommendations in Section 07.
Possibility of hazardous reactions Hazardous polymerization is not known to occur.
Conditions to avoid Avoid contact with incompatible materials.
Incompatible materials Oxidizing agents, such as oxygen, hydrogen peroxide, sulphuric and nitric acids, hypochlorites and permanganates.
Hazardous decomposition products Thermal decomposition may produce oxides of nitrogen, and isocyanate. Thermal decomposition occurs at 320-370 °C.

Section 11 Toxicological Information

Acute Toxicity (LD50 / LC50 values)

Component	Route	Species	Value	Exposure time
Cyanuric acid	Oral	Rat	>5,000 mg/kg bw	
	Inhalation (dust)	Rat	>5.25 mg/L	4 hours
	Dermal	Rabbit	>5,000 mg/kg bw	

Toxic Health Effect Summary

Chemical characteristics No known effects
Skin May cause transient irritation.
Ingestion May cause discomfort or nausea. A study of 10 rats determined constipation, tiredness, abnormal brain function, and piloerection were caused in 2 rats. All effects subsided after 4 days. Weight loss was noted in 1 rat.
Inhalation May cause respiratory irritation.
Eye contact May cause eye irritation and redness.
Sensitization A study on mice indicated that that cyanuric acid causes mild sensitizing effects, but are below thresholds for classification.
Mutagenicity This product and its components at their listed concentration have no known mutagenic effects.
Carcinogenicity This product and its components at their listed concentration have no known carcinogenic effects.
Reproductive toxicity This product and its components at their listed concentration have no known reproductive effects.
Specific organ toxicity This product and its components at their listed concentration have no known effects on specific organs.
Aspiration hazard Not available
Synergistic materials Melamine

Section 12 Ecological Information

Ecotoxicity

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Component	Type	Species	Value	Exposure Time
Cyanuric acid	LC50	Fish (freshwater)	>1,000 mg/L	96 hours
	EC50	Invertebrates (freshwater)	>1,000 mg/L	48 hours
	EC10	Algae (marine)	76 mg/L	72 hours
Biodegradability	The domestic substance list categorizes cyanuric acid as non-persistent.			
Bioaccumulation	The domestic substance list categorizes cyanuric acid as non-bioaccumulative.			
Mobility	This product is water soluble, is not predicted to adsorb to soil and may contaminate ground water.			
Other adverse effects	Not available			

Section 13 Disposal Considerations

Waste From Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

Section 14 Transport Information

UN number	This product does not meet the definition of dangerous goods per Part 2 of Transport of Dangerous Goods Regulations
UN proper shipping name and description	Not available
Transport hazard class(es)	Not available
Packing group	Not available
Excepted quantities	Not available
Environmental hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special precautions	No special precautions
Transport in bulk	ERAP index: not available
Additional information	MARPOL 73/78 and IBC Code: This product is not listed in Chapter 17 of the IBC Code. Secure containers (full or empty) during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 16 of this SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and published test data regarding the classification of this product are listed in the references at section 16 of this SDS.

Section 15 Regulatory Information.

NOTE: THE PRODUCT LISTED ON THIS SAFETY DATA SHEET HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN HAZARDOUS PRODUCTS REGULATIONS. THIS SAFETY DATA SHEET CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

All components of this product appear on the domestic substance list.

Section 16 Other Information

Date of latest revision: July 21, 2023

Note: The responsibility to provide a safe workplace remains with the buyer / user. The buyer / 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 buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the RDC Responsible Distribution® 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) *NIOSH Pocket Guide to Chemical Hazards*; U.S. Department of Health and Human Services, <https://www.cdc.gov/niosh/npg/default.html>
- 2) *WorkSafe BC E-Limit*; Workers' Compensation Foard of British Columbia, <https://elimit.online.worksafebc.com/>
- 3) *ECHA - Registered Substance Dossier*; European Chemicals Agency, <https://echa.europa.eu/registration-dossier/-/registered-dossier/15028>
- 4) *Transportation of Dangerous Goods Regulations*; Transport Canada, <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-286/index.html>
- 5) Globally Harmonized System of Classification and Labeling of Chemicals (GHS) *Seventh revised edition*
- 6) International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) 2007 Edition
- 7) The ACS Style Guide