MATERIAL SAFETY DATA SHEET

Cyanuric Acid

Section 01 - Chemical And Product And Company Information

Product Identifier ..................... Cyanuric acid

Product Use ............................ Chlorine stabilizer, elastomer curative, whitening agent

Section 02 - Composition / Information on Ingredients

Hazardous Ingredients .................. Cyanuric acid 100%

CAS Number .......................... Cyanuric acid 108-80-5

Synonym (s) ........................ Isocyanuric acid, tricyan acid, s-2,4,6-triazinetriol, trihydroxycyanidine, 2,4,6-trihydroxy-1,3,5-triazine, 1,3,5-triazine-2,4,6-triol

Section 03 - Hazard Identification

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

Skin Contact / Absorption ............ May cause slight skin irritation. Is absorbed through the skin.

Eye Contact ............................. Exposure to dust may cause mechanical eye irritation.
Ingestion. May be mildly toxic by ingestion.

Exposure Limits. None established

Section 04 - First Aid Measures

Inhalation. Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.

Skin Contact / Absorption. Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.

Eye Contact. Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention.

Ingestion. Do not induce vomiting. If vomiting occurs, lean victim forward to prevent breathing in vomitus. Give 1-2 glasses amounts of water. Do not give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

Additional Information. Not available

Section 05 - Fire Fighting

Conditions of Flammability. May be combustible at high temperature.

Means of Extinction. For small fires, use dry chemical powder. For large fires, use water spray, fog or foam. Do not use water jet.

Flash Point. Not available

Auto-ignition Temperature. Not available

Upper Flammable Limit. Not available

Lower Flammable Limit. Not available

Hazardous Combustible Products. Carbon oxides, nitrogen oxides, cyanic acid and cyanide gas.
Special Fire Fighting Procedures...... Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Explosion Hazards...................... Reported violent reaction with ethanol and with chlorine to form a spontaneously combustible product.

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**Section 06 - Accidental Release Measures**

Leak / Spill.............................. Wear appropriate personal protective equipment if required. Ventilate area. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Flush with water to remove any residue.

Deactivating Materials.................

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**Section 07 - Handling and Storage**

Handling Procedures.................... 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.

Storage Requirements................... 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.

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**Section 08 - Personal Protection and Exposure Controls**

Protective Equipment

**Eyes**................................... Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

**Respiratory**............................ NIOSH-approved respirator for dust should be worn.

**Gloves**................................. Impervious gloves of chemically resistant material (rubber or PVC) should be worn. Wash contaminated clothing and dry thoroughly before reuse.

**Clothing**............................... Body suits, aprons, and/or coveralls of chemical resistant material should be worn. Wash contaminated clothing and dry thoroughly before reuse.

**Footwear**.............................. Impervious boots of chemically resistant material should be worn.

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Engineering Controls
Ventilation Requirements. Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other. Keep an eye wash fountain and safety shower available and in close proximity to work area.

Section 09 - Physical and Chemical Properties

Physical State. Solid

Odor and Appearance. White odourless crystals

Odor Threshold. Not applicable

Specific Gravity (Water=1). Not available

Vapor Pressure (mm Hg, 20°C). Not applicable

Vapor Density (Air=1). Not available

Evaporation Rate. Not available

Boiling Point. Not applicable

Freeze/Melting Point. 360°C

pH. 4.8-5.2 (10% solution)

Water/Oil Distribution Coefficient. Not available

Bulk Density. Not available

% Volatiles by Volume. Not available

Solubility in Water. 2000mg/L at 25°C

Molecular Formula. C₃H₃N₃O₃

Molecular Weight. 129.08

Section 10 - Stability and Reactivity

Stability. Stable under normal conditions.

Incompatibility. Strong oxidizers, ethanol
**Hazardous Products of Decomposition**

Carbon oxides, nitrogen oxides, cyanic acid and cyanide gas.

Polymerization

Will not occur

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### Section 11 - Toxicological Information

**Irritancy**

Mildly irritating

**Sensitization**

Not available

**Chronic/Acute Effects**

Acute effects include mild irritation of skin, eyes, respiratory tract and digestive tract. Potential chronic effects include repeated digestion affecting the kidneys and metabolism. Repeated or prolonged exposure is not known to aggravate medical condition.

**Synergistic Materials**

Not available

**Animal Toxicity Data**

LD$_{50}$ (dermal, rabbit) = > 5000mg/kg
LD$_{50}$ (oral, mouse) = 3400mg/kg
LD$_{50}$ (intravenous, mouse) = 500mg/kg

**Carcinogenicity**

Not available

**Reproductive Toxicity**

Not available

**Teratogenicity**

Not available

**Mutagenicity**

Not available

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### Section 12 - Ecological Information

**Fish Toxicity**

Not available

**Biodegradability**

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.

**Environmental Effects**

No data available

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### Section 13 - Disposal Consideration

**Waste Disposal**

Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Section 14 - Transportation Information

TDG Classification

Class…………………………………… Not regulated
Group………………………………… Not regulated
PIN Number………………………… Not regulated
Other………………………………… Secure containers (full and/or empty) with suitable hold down devises during shipment.

Section 15 - Regulatory Information

WHMIS Classification……………………Not a controlled product

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

Section 16 - Other Information

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.

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