

**SECTION 1 : IDENTIFICATION**

**Product Name:** GLENGARRY CT-2000  
**Product Use:** Cooling Tower Treatment

**Supplier:** Glengarry Solutions **Phone:** 416-757-1333  
**Address:** 33 Melford Drive, Unit 5, **Fax:** 416-757-9793  
Scarborough, Ontario. M1B 2G6 **Poison Control Centre:** 1-800-268-9017

**SECTION 2 : HAZARD IDENTIFICATION****GHS Classification:**

- Category 1: Corrosive to metals.  
Category 5: Acute toxicity, Dermal.  
Category 1B: Skin corrosion/irritation.  
Category 1: Serious eye damage/eye irritation.  
Category 3: Specific target organ toxicity - single exposure, Respiratory system

**Signal Word:** **DANGER**

**Pictogram:**

**Hazard Statements:**

- H290: May be corrosive to metals.  
H302: Harmful if swallowed.  
H313: ~~MAY BE HARMFUL IN CONTACT WITH SKIN.~~  
H314: Causes severe skin burns and eye damage.

**Precautionary Statements:**

- P202: Do not handle until all safety precautions have been read and understood.  
P234: Keep only in original container.  
P260: Do not breathe mist.  
P264: Wash thoroughly after handling.  
P280: Wear protective gloves/protective clothing/face protection.

**Response Statements:**

- P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. DO NOT INDUCE VOMITING. Immediately call a POISON CENTER/doctor.  
P303+P361+P353+P310 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER/doctor.  
P304+P340+P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor.  
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.  
P363: Wash contaminated clothing before reuse.

**Storage:** P405: Store locked up.  
**Disposal:** P501: Dispose of container according to all applicable regulations.

### SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	EC No.	CONCENTRATION
(Nitrilotris(methylene))-tris-phosphonic acid	6419-19-8		1 to 10
Diethylenetriamine	15827-60-8		1 to 10
penta(methylenephosphonic acid)	7446-20-0		1 to 10
Zinc sulfate	7647-01-0		1 to 10
Hydrochloric acid	95-14-7		0.1 to 1.0

### SECTION 4 : FIRST AID MEASURES

- EYES:** Wash with copious amounts of water for at least 20 minutes keeping eyelids open. If irritation persists, repeat flushing. Get immediate medical attention.
- SKIN:** Immediately wash the affected areas with plenty of water. If irritation persists, obtain medical attention.
- INHALATION:** Remove person to fresh air and keep comfortable for breathing. Seek medical attention immediately.
- INGESTION:** Do not attempt to give anything by mouth to an unconscious person. If person is alert and not convulsing, rinse mouth out and give 1-2 glasses of water to dilute material and seek medical attention immediately.  
DO NOT INDUCE VOMITING.

### SECTION 5 : FIRE FIGHTING MEASURES

- Flammability:** Not flammable.
- Suitable Extinguishing Media:** Use extinguishing media suitable for surrounding materials.
- Specific Hazards Arising from the Chemical:** None known.
- Special Protective Equipment and Precautions for Fire-fighters:**  
Self contained breathing apparatus and protective clothing should be worn in fighting all fires involving chemicals.

### SECTION 6 : ACCIDENTAL RELEASE MEASURES

- Personal Precautions, Protective Equipment and Emergency Procedures:**  
Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid contact with skin, eyes and inhalation of vapors.
- Environmental Precautions:**  
Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, or confined areas. Do not flush into surface water or sanitary sewer system.
- Methods and Materials for Containment and Cleaning Up:**  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Dispose of according to local, provincial and federal regulations.

### SECTION 7 : HANDLING AND STORAGE

- Precautions for Safe Handling:**  
Do not handle until all safety precautions have been read and understood. Use normal good industrial hygiene and safety practices. Use recommended safety equipment when handling. Wash thoroughly after handling.
- Conditions for Safe Storage:**  
Avoid storage at high temperatures and protect from freezing. Store away from incompatibles. Keep containers closed when not in use. Store locked up.

### SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Exposure Guidelines

COMPONENTS	CAS NO.	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric acid	7647-01-0	2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm Ceiling: 5 ppm (7 mg/m <sup>3</sup> )

**Remarks:**

Only those substances with limit values have been listed.

**Legend**

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

CT-2000

**Appropriate Engineering Controls:**

Ensure adequate ventilation, especially in confined areas.

**Individual Protection Measures:**

**Eyes:** Chemical safety goggles/faceshield.

**Skin:** Chemical resistant gloves and appropriate protective clothing.

**Respiratory:** Approved NIOSH respiratory protection if TLV/PEL is exceeded or if over exposure is likely.

**Work Hygienic Practices:** Facilities storing or using this material should be equipped with emergency eyewash and a safety shower. Good personal hygiene practices should always be followed.

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Liquid.
<b>Colour:</b>	Clear Brown.
<b>Odour :</b>	Slight Acrid Odour.
<b>Odour Threshold:</b>	No information available.
<b>pH:</b>	0.5 to 1.5
<b>Specific Gravity (water = 1) :</b>	1.05 to 1.10
<b>Melting point/Freezing point:</b>	~0 °C
<b>Boiling point:</b>	~100°C
<b>Flammability:</b>	Not flammable.
<b>Upper Explosive Limit:</b>	Not Applicable.
<b>Lower Explosive Limit:</b>	Not Applicable.
<b>Flash Point:</b>	Not Applicable.
<b>Auto-ignition Temperature:</b>	Not Applicable.
<b>Decomposition Temperature:</b>	No information available.
<b>Viscosity:</b>	No information available.
<b>Vapour Pressure (mm Hg) :</b>	No information available.
<b>Vapour Density (air = 1) :</b>	No information available.
<b>Evaporation Rate :</b>	No information available.
<b>Solubility in Water :</b>	Miscible.
<b>Partition Coefficient n-Octanol/Water:</b>	No information available.

**SECTION 10 : STABILITY AND REACTIVITY**

<b>Reactivity:</b>	Reacts with alkali, oxidizers and organic materials.
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	None known.
<b>Conditions to Avoid:</b>	Avoid strong oxidizing agents and strong alkali.
<b>Incompatible Materials:</b>	Oxidizing agents, strong reducing agents and alkali. Acidic solution will release chlorine when mixed with bleach. Corrosive to aluminium, mild steel and many metals.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition products are toxic and may include phosphines, CO, CO <sub>2</sub> , oxides of nitrogen, zinc, and sulphur, and other acrid fumes.

**SECTION 11 : TOXICOLOGICAL INFORMATION**

<b>Primary route of exposure:</b>	Eye contact, skin contact, ingestion and inhalation.
<b>Skin corrosion/irritation:</b>	May cause deep, penetrating ulcers of the skin. Causes severe burns with delayed tissue destruction. Causes redness and pain.
<b>Serious eye damage/irritation:</b>	Causes severe eye burns. May cause irreversible eye injury. Contact may cause ulceration of the conjunctiva and cornea. Eye damage may be delayed. Causes redness and pain.
<b>Respiratory or skin sensitization:</b>	No information available.
<b>Germ cell mutagenicity:</b>	No information available.
<b>Carcinogenicity:</b>	The ingredients of this product are not classified as carcinogens by ACGIH or IARC, not regulated as carcinogen by OSHA, and not listed as carcinogen by NTP.
<b>Reproductive toxicity:</b>	No information available.

**STOT-single exposure:** No information available.  
**STOT-repeated exposure:** No information available.  
**Aspiration hazard:** No information available.

### Component Acute Toxicity Information

COMPONENT	CAS No.	ORAL LD <sub>50</sub>	DERMAL LD <sub>50</sub>	INHALATION LC <sub>50</sub>
(Nitrilotris(methylene))-tris-phosphonic acid	6419-19-8	2100 mg/Kg	not available	not available
Diethylenetriamine penta(methylenephosphonic acid)	15827-60-8	7,180 mg/kg	>7940 mg/Kg (Rabbit)	not available
Zinc sulfate	7446-20-0	2150 mg/kg	not available	not available
Hydrochloric acid	7647-01-0	238 - 277 mg/Kg (Rat)	> 5010 mg/kg (Rabbit)	1.68 mg/L ( Rat ) 1 h
Benzotriazole	95-14-7	560 mg/Kg	not available	not available

### SECTION 12 : ECOLOGICAL INFORMATION

**Toxicity:** No information available.  
**Persistence and degradability:** No information available.  
**Bioaccumulative potential:** No information available.  
**Mobility in soil:** No information available.  
**Other adverse effects:** No information available.

### SECTION 13 : DISPOSAL CONSIDERATIONS

**Waste disposal of substance:** Dispose of in accordance with national, state/provincial and regional regulations.  
**Container disposal:** Dispose of in accordance with national, state/provincial and regional regulations.

### SECTION 14 : TRANSPORT INFORMATION

**T.D.G./D.O.T. Classification:**

**Shipping Name:** CORROSIVE LIQUID N.O.S. ( Phosphonic acid Solution)  
**UN Number:** 3265      **Class:** 8      **Packing Group:** III

### SECTION 15 : REGULATORY INFORMATION

**WHMIS Classification:**



D2B - Toxic Material Causing Other Toxic Effects



E - Corrosive Material

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulation (HPR), Hazard Communication Rule (2012), Regulation (EC) No 1907/2006

### SECTION 16 : OTHER INFORMATION

**Preparation Information:**

**Latest Revision Date:** 23-Apr-2019      **Issue Date:** 6-Sep-2017

**Version No.** 1.01

**Revision Notes:** This document has been updated to comply with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Prepared By:** Regulatory Affairs.

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