



# PMC WATER SYSTEMS SERVICES INC.

## 124 CONNIE CRES. UNIT 9 CONCORD, ONTARIO.

TEL 905 669 8262 FAX 905 669 8252 EMAIL [info@pmcwatersystems.com](mailto:info@pmcwatersystems.com) [www.pmcwatersystems.com](http://www.pmcwatersystems.com)

### SAFETY DATA SHEET C-1000-Z

#### Protection Required



#### SECTION 1 - MATERIAL IDENTIFICATION AND USE

**Manufacturer's Name** : PMC Water Systems Services Inc.  
**Manufacturer's Address** : 124 Connie Crescent, Unit 9, Concord, ON L4K 1L7  
**Manufacturer's Phone #** : (905) 669-8262  
**24 Emergency Phone #** : Canutec (613) 996-6666  
**Product Identifier** : C-1000-Z  
**Product Use** : Corrosion inhibitor and scale control

#### SECTION 2 – COMPOSITION/INGREDIENTS OF MATERIAL

Ingredients	Concentration	CAS #	LD <sub>50</sub>	LC <sub>50</sub>
Potassium Hydroxide	5-15%	1310-58-3	365 mg/kg, oral – rat	No Data Available
Diethylene Triamine Penta (Methylene Phosphonic Acid) (DETPMP)	1-5%	15287-60-8	7180 mg/kg, oral – rat	No Data Available
2-HydroxyPhosphonoacetic Acid (PHAA)	1-5%	23783-26-8	<2000 mg/kg, oral – rat	No Data Available
2-Phosphonobutane-1,2,4- tricarboxylic acid (PBTC)	1-5%	37971-36-1	<2000 mg/kg, oral – rat	>10500 mg/kg, inhalation – rat
Carboxylate Sulfonate Non-ionic Terpolymer	5-15%	Trade secret	No Data Available	No Data Available
Tolyltriazole (TTA)	1-5%	29385-43-1	>500 mg/kg, oral – rat	No Data Available
1,2,3-Benzotriazole (BTA)	1-5%	95-14-7	560 mg/kg, oral – rat	1400 ppm, 4hr, inhalation – rat
Sodium Butyl Benzotriazole (SBB)	0.5-1.5%	118685-34-0	No Data Available	No Data Available
2-Aminoethanol	1-5%	141-43-5	1720 mg/kg, oral – rat	No Data Available
p-Toluenesulfonic acid (PTSA)	0.1-1%	104-15-4	1410 mg/kg, oral – rat	No Data Available

#### SECTION 3 – HAZARDS IDENTIFICATION



**Signal Word**  
**Hazard Statement**  
**Precautionary Statement**

**Danger**  
 Causes severe skin burns and eye damage. Causes serious eye damage. Harmful to aquatic life  
 Do not breathe dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed - Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. 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. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor/physician. Wash contaminated clothing before reuse. Avoid release to the environment. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

## SECTION 4 – FIRST AID MEASURES

<b>Acute Health Effects</b>	Caution: Potassium Hydroxide burns can be painless and may not warn of dangerous injury
<b>Eye Contact</b>	CORROSIVE. Contact causes severe burns with redness, swelling, pain and blurred vision. Causes eye burns. Irreversible damage to the eyes. Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is any irritation.
<b>Skin Contact</b>	CORROSIVE. Contact can cause pain, itching, redness, scaling, burns, and blistering. Permanent scarring can result. Severe exposure can cause death. Burns may not be immediately painful; onset of pain may be delayed minutes to hours. Wash with plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.
<b>Inhalation</b>	Remove victim to fresh air. If breathing stops, administer artificial respiration and seek medical aid promptly. If breathing is difficult, get immediate medical attention.
<b>Ingestion</b>	Give plenty of water to dilute product. Do not induce vomiting. Keep victim quiet. If vomiting occurs, keep victim's head below hips to prevent inhalation of vomited material. <b>Seek medical help immediately!</b>
<b>Notes to Physician</b>	NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this product. <i>Moreover, this product can damage the esophagus on the way down and will cause further damage in the reverse direction!</i> The stomach should be emptied under medical supervision after the installation of an airway to protect the lungs.

## SECTION 5 - FIRE FIGHTING MEASURES

<b>Flammability</b>	Not Flammable
<b>Flash Point</b>	Not Applicable
<b>Autoignition</b>	Not Applicable
<b>Temperature</b>	
<b>Extinguishing Media</b>	Does not burn. Use extinguishing media appropriate for surrounding fire. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available.
<b>Special Firefighting Procedures/Equipment</b>	Evacuate nonessential personnel from fire area. Product reacts with water, possibly violently. Reaction may produce heat and/or gases. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Contact with some metals (particularly magnesium, aluminum and galvanized zinc) can rapidly generate hydrogen. Fire fighters must wear full face, positive pressure, self-contained breathing apparatus and appropriate protective clothing.
<b>Explosion Data</b>	Not Applicable
<b>Hazardous Combustion Products</b>	Potassium oxide, peroxides, carbonates may form in fire
<b>NFPA Ratings</b>	Health 3, Flammability 0, Instability 1 <b>HMIS Ratings:</b> Health 3, Flammability 0, Reactivity 1

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Safety eye goggles. Wear protective clothing and equipment.
<b>Environment Precautions</b>	Avoid discharge to natural waters and sewers.
<b>Spill Response/Cleanup</b>	Isolate hazard area and restrict access. Stop leak if without risk. Dike and contain spill with inert material (sand, earth, etc.) and transfer liquid and solid separately to containers for recovery or disposal. Neutralize with lime or soda ash. Sweep or shovel material into waste container. Flush residue with water.

## SECTION 7 – HANDLING AND STORAGE

<b>Handling</b>	Corrosive material. Avoid contact with eyes, skin and clothing. Do not ingest. Do not inhale vapour or mist. Use appropriate personal protective equipment. Use with adequate ventilation. Handle in accordance with good industrial hygiene and safety practices. Keep containers closed when not in use. Empty product containers may contain residue. Follow label warnings even after container is emptied.
<b>Storage Requirements</b>	Store in a cool, dry, well-ventilated area, away from heat and ignition sources. Store in original tightly closed container to prevent moisture absorption and/or contamination. Place away from incompatible materials. Product has a shelf life of 24 months. Storage Temperature: >16°C (>60.8°F).

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Ventilation</b>	Good general ventilation should be sufficient for most conditions.
<b>Respiratory Protection</b>	Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use a NIOSH approved air-purifying respirator.
<b>Skin Protection</b>	Polyethylene, neoprene or natural rubber gloves, impervious footwear, rubber safety boots.
<b>Eye/Face Protection</b>	Chemical safety goggles; face shield.
<b>Other Comments</b>	An eyewash station and safety shower should be available

Ingredients	Exposure Limit - ACGIH	Exposure Limit - OSHA	Immediately Dangerous to Life or Health - IDLH
Potassium Hydroxide	2 mg/m3 Ceiling	2 mg/m3 Ceiling	10 mg/m3
2-Aminoethanol	6 ppm (STEL) 3 ppm (TWA)	3 pp (TWA) 6 mg/m <sup>3</sup> (TWA)	

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Liquid
Odour and Appearance	:	Mild Odour; Dark Amber Liquid
Odour Threshold	:	Not Available
Specific Gravity (Water = 1)	:	1.10 to 1.16 at 15°C
Vapour Pressure (mmHg)	:	Not Available
Vapour Density (Air = 1)	:	Not Available
Evaporation Rate	:	Not Available
Boiling Point	:	110° C, 230° F
Freezing/Melting Point	:	-4° C, 24.8° F
pH	:	12 - 13
Coefficient Water/Oil Distribution	:	Not Applicable
Solubility in Water	:	Soluble

## SECTION 10 – STABILITY AND REACTIVITY

Stability/Reactivity	Stable
Conditions for Instability	Heat, water, moisture or humidity.
Incompatible Materials	Reacts violently with many chemicals including water, organic acids, inorganic acids, oxidizing agents and glycols. Corrosive to alloys of aluminum, zinc, tin and copper releasing hydrogen. Damages leather, wool and some other textiles. Contact with water causes violent frothing and spattering. Flammable hydrogen may be generated from contact with metals such as: aluminum, brass, tin, zinc. Avoid contact with acids, halogenated organics, organic nitro compounds, glycols. Caustic soda solution reacts readily with various reducing sugars (fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.
Hazardous Decomposition Products	Oxides of potassium
Hazardous Polymerization	Hazardous polymerization will not occur.

## SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Entry	:	Eyes, skin, respiratory and digestive system Absorbed through skin.
Skin Contact	:	Brief contact may cause severe skin burns
Eye Contact	:	Causes severe burns. Small quantities can result in permanent damage and/or loss of vision
Ingestion	:	Can cause severe burns to mouth, esophagus and stomach
Inhalation	:	Can cause damage to upper respiratory tract and lung tissue
Chronic Exposure Effects	:	Chronic inhalation exposure may lead to respiratory disorders, such as emphysema and chronic bronchitis. Chronic skin contact may cause dermatitis. Repeated or prolonged contact with spray mist may produce chronic eye irritation, severe skin irritation and respiratory tract irritation leading to frequent attacks of bronchial infection.
Irritancy	:	Irritant
Sensitization	:	Not Available
Carcinogenicity	:	Not Available
Teratogenicity	:	Not Available
Mutagenicity	:	Not Available
Reproductive Effects	:	Not Available

## SECTION 12 – ECOLOGICAL INFORMATION

General Comments	Toxic to aquatic life. May increase pH of waterways and adversely affect aquatic life.
------------------	--

## SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal	Dispose in accordance with federal, provincial or local government requirements. Contact your local, provincial or federal environmental agency for specific regulations.
----------------	---

## SECTION 14 – TRANSPORT INFORMATION

**TDG Shipping Regulations** UN 3266, Corrosive Liquid, Basic, Inorganic, Class 8, PG III

## SECTION 15 – REGULATORY INFORMATION

**WHMIS Classification** Class D1B: Toxic Material  
**Domestic Substances List** All ingredients are listed on the DSL or are not required to be listed.

## SECTION 16 – OTHER INFORMATION

**Prepared by:** Lab Services  
PMC Water Systems Services Inc.  
124 Connie Crescent, Unit 9  
Concord Ontario L4K 1L7

**Preparation Date:** October 3, 2019

---

While all the data presented is believed to be accurate at the time of preparation, PMC Water Systems Services Inc. makes no warranty; the data is offered for your consideration, investigation and verification.