PMC WATER SYSTEMS SERVICES INC.
124 CONNIE CRES. UNIT 9 CONCORD, ONTARIO.
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MATERIAL SAFETY DATA SHEET
TOWER SHIELD-101

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
Manufacture's Phone #	:	(905) 669-8262
24 Emergency Phone #	:	Canutec (613) 996-6666
Product Identifier	:	Tower Shield-101
Product Use	:	Water Treatment

SECTION 2 – COMPOSITION/INGREDIENTS OF MATERIAL

Ingredients	**Concentration**	**CAS #**	**LD_{50}**	**LC_{50}**
1-Hydroxyethylidene-1,1-diphosphonic Acid	<10%	2809-21-4	2000 mg/kg (oral – mouse)	Irritant
Sodium Salt of Carboxylic Acid	<40%	34345-47-6	>2400 mg/kg (oral - rat)	>2000 mg/kg (rat)

SECTION 3 – HAZARDS IDENTIFICATION

Emergency Overview

Eye Contact	Causes severe skin burns and eye damage.
Skin Contact	Causes severe skin burns and eye damage.
Inhalation	Harmful if inhaled.
Ingestion	Harmful if swallowed.

SECTION 4 – FIRST AID MEASURES

Eye Contact	Flush eyes with a large amount of water for 15 minutes. Seek medical attention immediately if any irritation persists. After first aid, get appropriate in-plant, paramedic or community medical support.
Skin Contact	Wash affected areas thoroughly with soap and water for at least 15 minutes. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Seek medical attention if any irritation persists.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing difficult, give oxygen. Call a physician if any difficulties persist.
Ingestion	If person can swallow, give 2 glasses of water to drink. DO NOT INDUCE VOMITING! After first aid, seek appropriate in-plant, paramedic, or community medical support. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

Flammability	Non-flammable
Flash Point	Not Available
Autoignition Temperature	Not Available
Extinguishing Media	Water fog, Alcohol foam, carbon dioxide, dry chemical
Special Procedures	None known other than material can splatter above 100°C/212°F. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.
Hazardous Combustion Products	Unknown but carbon monoxide may be released on burning.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
Environment Precautions	Follow applicable OSHA/CERCLA or any other regulations as well as any state or local regulations that may apply. For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.
Spill Response/Cleanup	For small spills, absorb spill with paper towel or similar absorbent; or flush to sewer or ground with large amounts of water. For large spills, absorb spill with vermiculite, oil dry or similar non-reactant absorbent. Solidified product represents no environmental hazard.
Prohibited Materials	Do not add water to spilled material.

SECTION 7 – HANDLING AND STORAGE

Handling	Use the recommended safety controls and personal protective equipment as outlined. Fully review all data before handling of the material itself. Avoid contact with skin or eyes. Avoid breathing dust or mist. Keep from contact with clothing and other combustible materials. Observe good personal hygiene and housekeeping practices. Wash thoroughly after handling.
Storage Requirements	Do not store in direct sunlight. Store in a tightly closed container. Store in a cool dry, well-ventilated area. Do not store this material near any strong acids, bases, oxidizers, flammables or any other type of reactive material. Do not expose the material to temperature extremes. Do not store product above 77°F.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation	Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.
Respiratory Protection	Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessel, or storage tanks), wear an SCBA.
Skin Protection	Chemically protective gloves and aprons.
Eye/Face Protection	Protective eyeglasses or chemical safety googles; safety glasses with side shields.
Other Comments	An eyewash station and safety shower should be available
General Hygiene	Wash hands thoroughly with soap and water after handling this product and before eating, drinking or using tobacco. Wash contaminated clothing before reuse.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Solid
Odour and Appearance	:	Characteristic odour; light amber colour
Odour Threshold	:	Not Available
Specific Gravity (Water = 1)	:	2.1 BD
Vapour Pressure (mmHg)	:	Not Applicable
Vapour Density (Air = 1)	:	Not Applicable
Evaporation Rate	:	Not Applicable
Boiling/Melting Point	:	Not Applicable
Freezing Point	:	Not Applicable
pH	:	Of 1% solution, <10
Coefficient Water/Oil Distribution	:	Not Available
Solubility in Water	:	Complete

SECTION 10 – STABILITY AND REACTIVITY

Stability/Reactivity	This product is stable at room temperature in closed containers under normal storage and handling conditions. However, avoid temperature extremes.
Incompatible Materials	Avoid contact with strong acids, strong alkalis, oxidizers or any other type of reactive material. Excessive temperature, contact with any type of reactive chemicals.
Conditions of Reactivity	High temperatures, poor ventilation, contamination, moisture/high humidity.
Hazardous Decomposition Products	There are no known hazardous decomposition products for this material unless the material is burned in which case undetermined evolution of toxic gases may occur.
Hazardous Polymerization	Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Effects of Acute Exposure	:	Absorbed through skin, dermal contact, eye contact, inhalation
Skin Contact	:	Irritation to skin.
Eye Contact	:	Irritation to eyes & possible burning if materials are not immediately rinsed from the eye.
Ingestion	:	Not tested for this blend. Harmful if swallowed.
Inhalation	:	Might produce irritation to respiratory system.
Chronic Exposure Effects	:	No specific studies have been conducted for this specific blend.
Irritancy	:	Irritation to skin
Carcinogenicity	:	IARC, NTP, and OSHA do not list this product or its components as a carcinogen.
Teratogenicity	:	No studies have been performed for this specific product blend.
Mutagenicity	:	No mutagenic effects are known to be applicable for the formulation components of this product.
Reproductive Effects	:	No Data Available

SECTION 12 – ECOLOGICAL INFORMATION

General Comments Not considered a marine pollutant. The component(s) of this product are subject to rapid biodegradation.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Dispose in accordance with federal, provincial or local government requirements.

SECTION 14 – TRANSPORT INFORMATION

Shipping Regulations Not TDG Regulated
Domestic Substances List All ingredients are listed on the DSL or are not required to be listed.

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification

SECTION 16 – OTHER INFORMATION

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