PMC WATER SYSTEMS SERVICES INC.
124 CONNIE CRES. UNIT 9 CONCORD, ONTARIO.
TEL 905 669 8262, FAX 905 669 8252, EMAIL pmcwater@aol.com, www.pmcwatersystems.com

MATERIAL SAFETY DATA SHEET
SULPHAMIC ACID

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	:	Sulphamic Acid
Product Use	:	Water Treatment

SECTION 2 – COMPOSITION/INGREDIENTS OF MATERIAL

Ingredients	Concentration	CAS #	LD_{50}	LC_{50}
Sulphamic Acid	60-100%	5329-14-6	3160 mg/kg (oral rat)	Not Available

SECTION 3 – HAZARDS IDENTIFICATION

Potential Health Effects	Signs and Symptoms of Short-Term (Acute) Exposure
Eye Contact	Corrosive. Causes blurred vision, redness, tearing and severe eye burns. May causes blindness.
Skin Contact	Corrosive. Can product redness, inflammation and blistering. May cause dermatitis.
Inhalation	Extremely destructive to mucous membranes and upper respiratory tract. Symptoms may include burning sensation, sneezing, coughing, shortness of breath, headache, nausea and vomiting. Repeated or prolonged inhalation can produce lung damage, pulmonary edema, choking, unconsciousness or death.
Ingestion	Corrosive. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause liver and kidney damage.
Chronic Effects	Repeated exposure can produce eye irritation, local skin destruction or dermatitis, respiratory irritation or lung damage and chronic respiratory irritation.

SECTION 4 – FIRST AID MEASURES

Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin Contact	Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Consult a physician immediately. Discard or wash contaminated clothing before reuse.
Inhalation	Remove victim to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Get medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Flammability	Non-flammable
Flash Point	Not Applicable
Autoignition Temperature	Not Applicable
Extinguishing Media	Carbon dioxide, dry chemical, foam and water fog
Special Procedures	Water solution of sulphamic acid is extremely acidic. Firefighters should wear full protective clothing including self-contained breathing equipment.
Hazardous Combustion Products	Burning can produce oxides of sulphur and ammonia.
NFPA Ratings	Health 3, Flammability 0, Instability 0
HMIS Ratings	Health 3, Flammability 0, Reactivity 0

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear appropriate protective equipment.
Environment Precautions	Ensure spilled product does not enter sewers or streams; dike if needed.
Spill Response/Cleanup	Ventilate area. Isolate hazard and restrict access. Place solids in appropriate sealed container for later disposal. Neutralize with lime slurry, limestone or soda ash.

SECTION 7 – HANDLING AND STORAGE

Handling	Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. Use only in well ventilated areas. Wash thoroughly after handling.
Storage Requirements	Store in a cool, dry, well-ventilated area. Keep containers tightly closed. Protect against moisture, water and physical damage. Avoid storage with incompatible materials. Store away from sources of ignition.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation	Use only in well ventilated areas. Use local exhaust if mist or spray is generated.
Respiratory Protection	For dusty or misty conditions, wear NIOSH-approved dust or mist respirator.
Skin Protection	Impervious chemical resistant gloves. Chemical resistant clothing and boots
Eye/Face Protection	Chemical splash google; full face shield may be necessary
Other Comments	An eyewash station and safety shower should be available
General Hygiene	Avoid breathing vapor or mist. Avoid contact with skin, eyes and clothing.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Solid
Odour and Appearance	:	Odourless; white crystalline
Odour Threshold	:	No Data Available
Specific Gravity (Water = 1)	:	2.126
Vapour Pressure (mmHg)	:	Non-volatile
Vapour Density (Air = 1)	:	Not Available
Evaporation Rate	:	Not Available
Boiling Point	:	Decomposition at 209°C, 408.2°F
Freezing Point	:	Melting point 205°C, 401°F
pH	:	1.18 (1%)
Coefficient Water/Oil Distribution	:	12-14
Solubility in Water	:	Soluble

SECTION 10 – STABILITY AND REACTIVITY

Stability/Reactivity	Stable when dry, but slowly hydrolyzes in solution.
Incompatible Materials	Chlorine, hypochlorus acid, hypochlorite, cyanide or sulphur
Conditions of Reactivity	Water. Excessive heat, sparks and open flame in presence of oxidizing materials.
Hazardous Decomposition Products	Burning can produce toxic and corrosive fumes of ammonia and toxic acids of nitrogen and sulphur.
Hazardous Polymerization	Will not occur

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Entry	:	Skin and eye contact, ingestion, inhalation,
Skin Contact	:	Corrosive. May cause chemical burns, redness, blistering and dermatitis.
Eye Contact	:	Corrosive. Causes eye burns.
Ingestion	:	Corrosive. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause liver and kidney damage.
Inhalation	:	Extremely destructive to mucous membranes and upper respiratory tract. Repeated or prolonged inhalation may cause ulceration and perforation of the nasal septum. Vapours may cause pulmonary edema.
Chronic Exposure Effects	:	The substance is toxic to lungs, mucous membranes. Repeated exposure of low level dust can produce eye irritation. Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged inhalation of dust may lead to varying degree of respiratory irritation, lung damage or chronic respiratory irritation. Extremely hazardous in case of skin contact, ingestion and inhalation.

Irritancy	:	Strong irritant, will cause tissue damage.
Carcinogenicity	:	Not listed as a carcinogen by IARC and ACGIH.
Teratogenicity	:	Not Available
Mutagenicity	:	Not Available
Reproductive Effects	:	Not Available

SECTION 12 – ECOLOGICAL INFORMATION

General Comments Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams or public waterways. May be harmful to aquatic life.

SECTION 13 – DISPOSAL CONSIDERATIONS

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

SECTION 14 – TRANSPORT INFORMATION

Shipping Regulations UN 2967, Sulphamic Acid, Class 8, PG III
Domestic Substances List All ingredients are listed on the DSL or are not required to be listed.

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification Class E: Corrosive Material

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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