



PMC WATER SYSTEMS SERVICES INC.

124 CONNIE CRES. UNIT 9 CONCORD, ONTARIO.

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MATERIAL SAFETY DATA SHEET SCALE CLEAN 100

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 : Scale Clean 100
Product Use : Water Treatment

SECTION 2 – COMPOSITION/INGREDIENTS OF MATERIAL

Ingredients	Concentration	CAS #	LD ₅₀	LC ₅₀
urea, monohydrochloride	60-100%	506-89-8	1121 mg/kg (oral - rat)	Not Available

SECTION 3 – HAZARDS IDENTIFICATION

Emergency Overview WARNING! CAUSES EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE RESPIRATORY TRACT IRRITATION.
May be harmful if swallowed. Severely irritating to the eyes and skin. Slightly irritating to the respiratory system. Do not ingest. Do not get in eyes. Avoid breathing vapor or mist. Avoid contact with skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Eye Contact Severely irritating to eyes. Risk of serious damage to eyes.

Skin Contact Severely irritating to the skin.

Inhalation Slightly irritating to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion Harmful if swallowed.

Chronic Effects Adverse symptoms may include the following: respiratory tract irritation: coughing, skin irritation and redness, eye pain or irritation, watering, redness

SECTION 4 – FIRST AID MEASURES

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Notes to Physician In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

SECTION 5 - FIRE FIGHTING MEASURES

Flammability In a fire or if heated, a pressure increase will occur and the container may burst.

Flash Point	Not Applicable
Autoignition	Not Applicable
Temperature	
Extinguishing Media	Use an extinguishing agent suitable for the surrounding fire.
Special Procedures	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazardous Combustion Products	When involved in a fire, this product may generate hydrogen chloride, nitrogen oxides, carbon monoxide, hydrogen bromide, or bromine, carbon dioxide, nitrogen and irritating/toxic fumes and gases.
Decomposition Products	Carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds
Special Fire Hazards	Non-flammable but will burn on prolonged exposure to flame or high temperature. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead and zinc.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Environment Precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Spill Response/Cleanup	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal. Dispose of via a licensed waste disposal contractor. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Contaminated absorbent material may pose the same hazard as the spilled product.

SECTION 7 – HANDLING AND STORAGE

Handling	Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.
Storage Requirements	Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, food and drink. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Use appropriate containment to avoid environmental contamination.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Respiratory Protection	Use a properly fitted, air-purifying or air-fed respirator if a risk assessment indicates this is necessary.
Skin Protection	Chemical-resistant, impervious gloves. Protective clothing
Eye/Face Protection	Splash goggles
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	:	Liquid
Odour and Appearance	:	Odour not available; clear
Odour Threshold	:	Not Available
Specific Gravity (Water = 1)	:	Not Available
Vapour Pressure (mmHg)	:	Not Available
Vapour Density (Air = 1)	:	Not Available
Evaporation Rate	:	0.36 (water) compared with Butyl acetate.
Boiling Point	:	100°C, 212°F
Freezing Point	:	<0°C, 32°F
pH	:	1.5 [Acidic]

Coefficient Water/Oil Distribution : Not Applicable
Solubility in Water : Easily soluble in cold water, hot water, methanol and acetone. Soluble in diethyl ether.
Insoluble in n-octanol.

SECTION 10 – STABILITY AND REACTIVITY

Stability/Reactivity Stable
Incompatible Materials Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis
Conditions of Reactivity Non-flammable but will burn on prolonged exposure to flame or high temperature. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead and zinc.
Hazardous Decomposition Products Should not be produced under normal conditions of storage and use.
Hazardous Polymerization Will not occur under normal conditions.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Entry : Dermal contact. Eye contact. Inhalation. Ingestion.
Skin Contact : Corrosive. Cause skin burns.
Eye Contact : Corrosive. Causes serious eye damage
Ingestion : Harmful if swallowed.
Inhalation : Causes respiratory irritation
Chronic Exposure Effects : None know.
Exposure Limit : Not Available
Irritancy : Severely irritating to the eyes and skin. Slightly irritating to the respiratory system.
Carcinogenicity : No Data Available
Teratogenicity : No Data Available
Mutagenicity : No Data Available
Reproductive Effects : No Data Available

SECTION 12 – ECOLOGICAL INFORMATION

General Comments No known significant effects or critical hazards.

SECTION 13 – DISPOSAL CONSIDERATIONS

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

SECTION 14 – TRANSPORT INFORMATION

Shipping Regulations UN 3265, Corrosive Liquid, Acidic, Organic, N.O.S. (urea, monohydrochloride), Class 8, PG II
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
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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.