



PMC WATER SYSTEMS SERVICES INC.

124 CONNIE CRES. UNIT 9 CONCORD, ONTARIO.

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SAFETY DATA SHEET R-501

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 : R-501
Product Use : Reagent

SECTION 2 – COMPOSITION/INGREDIENTS OF MATERIAL

Ingredients	Concentration	CAS #	LD ₅₀	LC ₅₀
Acetic Acid	60-70%	64-19-7	3310 mg/kg (oral - rat)	11.4 mg/L 4h, inhalation - rat

SECTION 3 – HAZARDS IDENTIFICATION

Signal Word DANGER!
Hazard Statement May be corrosive to metals. Causes severe skin burns and eye damage.
Precautionary Statement Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection face protection. Wash thoroughly after handling. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Immediately take off all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep only in original packaging. Absorb spillage to prevent material damage. Store in a closed container. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 4 – FIRST AID MEASURES

Eye Contact In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Skin Contact Remove contaminated shoes and discard. In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Remove contaminated clothing and laundry before reuse.
Inhalation Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately. Get medical attention immediately.
Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.
Notes to Physician Treatment based on sound judgment of physician and individual patient reactions. Observe for pulmonary edema.

SECTION 5 - FIRE FIGHTING MEASURES

Flammability Not Flammable
Flash Point >93.3°C, >200°F (closed cup)
Autoignition Temperature 463°C, 865.4°F
Flammable Limits in Air (%) Lower: 4%
Upper: 19.9%
Extinguishing media Use DRY chemicals, CO₂, alcohol foam or water spray.

Special Procedures Stay upwind. Isolate and restrict area access. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up which could result in container rupture. Stop leak only if safe to do so. Water may be used to flush spills away from fire exposures and to dilute spills to non-flammable mixtures. Water run-off and vapor cloud may be corrosive. Dike and collect water used to fight fire for neutralization before release. Water streams should not be directed to the liquid, as this will cause the liquid to boil and generate more vapor. Fire fighters should wear full protective clothing, including self-contained breathing equipment.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide. Toxic fumes.

NFPA Ratings Health 3, Flammability 1, Instability 0 **HMIS Ratings** Health 3, Flammability 1, Reactivity 0

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions Wear appropriate protective equipment. Immediately evacuate personnel to safe areas. Isolate for 800 meters or 0.5 miles in all directions if tank, rail car, or tank truck is involved in fire. Evacuate downwind areas as conditions warrant to prevent exposure and to allow vapors or fumes to dissipate. Spills may expose downwind areas to toxic or flammable concentrations over considerable distances in some cases.

Environment precautions Ensure spilled product does not enter sewers or streams; dike if needed.

Spill Response/Cleanup Flush area with water to remove trace residue. Eliminate all ignition sources. Contain spill by diking. Absorb with an inert dry material and place in an appropriate waste disposal container. Neutralize the residue with sodium carbonate or crushed limestone. If fire potential exists, blanket spill with alcohol type aqueous film-forming foam or use water fog stream to disperse vapors.

SECTION 7 – HANDLING AND STORAGE

Handling For industrial use only. Protect from freezing. Avoid breathing vapor. Use only in well ventilated areas. Avoid contact with eyes, skin and clothing. Do not ingest. Do not cut, drill, grind, weld or perform similar operations on or near containers. Empty containers may contain hazardous product residues. Fixed equipment as well as transfer containers and equipment should be grounded to prevent accumulation of static charge. Use with adequate ventilation. Wash thoroughly after handling. Handle and open containers with care. Keep the containers closed when not in use.

Storage Requirements Keep containers tightly closed. Store in a cool, dry, well ventilated area, away from heat and ignition sources. Place away from incompatible materials. Store in accordance with good industrial practices. Store out of direct sunlight and on an impermeable floor.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

Respiratory Protection Wear a NIOSH-approved air purifying respirator required when vapors/aerosols are generated that exceed exposure limit.

Skin Protection Neoprene or PVC gloves. Chemical resistant clothing and boots

Eye/Face Protection Chemical splash goggle and/or full face shield to protect eyes and face.

Other Comments An eyewash station and safety shower should be available

Ingredients	Exposure Limit – ACGIH	Exposure Limit – OSHA	Immediately Dangerous to Life and Health – IDLH
Acetic Acid	15 ppm STEL 10 ppm TLV-TWA	10 ppm TWA 25 mg/m ³ TWA	50 ppm

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State : Liquid
Odour and Appearance : Strong vinegar odour; colourless
Odour Threshold : Not Applicable
Specific Gravity (Water = 1) : 1.1
Vapour Pressure (mmHg) : 11.7 at 20°C
Vapour Density (Air = 1) : 2.1
Evaporation Rate : Not Available
Boiling Point : 117°C, 242.6°F
Freezing Point : -26.5°C, 15.7°F
pH : 2.0 – 2.2
Coefficient Water/Oil Distribution : Not Available
Solubility in Water : Soluble

SECTION 10 – STABILITY AND REACTIVITY

Stability/Reactivity	Stable under normal conditions.
Incompatible Materials	Strong alkalis. Aldehydes. Ammonium nitrate. Carbonates. Oxides. Strong oxidizing agents. Common metals and their alloys. Hydroxides. Perchloric acid. Phosphates. Sodium peroxide.
Conditions of Reactivity	Avoid excessive heat, open flames and all ignition sources.
Hazardous Decomposition Products	Toxic fumes. Irritating vapors. Oxides of carbon.
Hazardous Polymerization	Will not occur

SECTION 11 – TOXICOLOGICAL INFORMATION

Skin Contact	: Causes burns. Harmful if absorbed through the skin. Symptoms may include: Redness or discoloration, swelling, itching, burning or blistering of skin.
Eye Contact	: Causes severe eye burns. May cause permanent eye damage. Symptoms of exposure may include: eye irritation, burning sensation, pain, watering and/or change of vision.
Ingestion	: Causes digestive tract burns. Symptoms of exposure may include: Inflammation of mouth, throat, esophagus and/or stomach. Nausea, vomiting, loss of appetite, gastrointestinal irritation and/ or diarrhea.
Inhalation	: Symptoms of exposure may include; nasal discharge, hoarseness, coughing, chest pain and breathing difficulty. Accumulation of fluid in the lungs (pulmonary edema) may occur.
Chronic Exposure Effects	: May cause injury to the eyes, digestive tract damage, respiratory tract damage, skin damage.
Irritancy	: Irritant
Carcinogenicity	: Not listed as carcinogenic by IARC or ACGIH.
Teratogenicity	: Not determined
Mutagenicity	: Not determined
Reproductive Effects	: Not determined

SECTION 12 – ECOLOGICAL INFORMATION

General Comments	Harmful effect due to pH shift. Caustic even in diluted form. Discharge into the environment must be avoided. The aquatic toxicity and biodegradation of acetic acid are expected to be influenced by its potential to lower pH. Acetic acid will biodegrade readily if released to water or soil. The atmospheric photochemical degradation half-life is estimated to be 26.7 days. The log n-octanol water partition coefficient for acetic acid is -0.17. This suggests that acetic acid has low potential to bioaccumulate.
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SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal	Dispose in accordance with federal, provincial or local government requirements. Do not allow this product to drain into sewers/water supplies.
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SECTION 14 – TRANSPORT INFORMATION

Shipping Regulations	UN 2790, Acetic Acid Solution, 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
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SECTION 16 – OTHER INFORMATION

Prepared by:	Lab Services PMC Water Systems Services Inc. 124 Connie Crescent, Unit 9 Concord, ON L4K 1L7
Date Prepared:	September 5, 2018

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.