



SAFETY DATA SHEET

MC-1

1. Product and Company Identification

Material name	MC-1
Version #	1.0
Revision date	Sep-01-2015
Supersedes date	Sep-08-2012
Prepared by	This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).
CAS #	Mixture
Product application	Membrane cleaner

Company/undertaking identification

GE Water & Process Technologies Canada
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Emergency telephone

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2. Hazards Identification

Emergency overview	May cause slight irritation to the skin. Corrosive to the eyes. Dusts may cause irritation to the upper respiratory tract.
Potential health effects	
Eyes	Corrosive to eyes
Skin	May cause slight irritation to the skin.
Inhalation	Primary route of exposure Inhalation of dusts may cause respiratory irritation.
Ingestion	May cause gastrointestinal irritation with possible nausea, vomiting, abdominal discomfort and diarrhea.
Target organs	No evidence of potential chronic effects.
Signs and symptoms	Inhalation of dusts and/or vapours may cause eye, nose, throat and respiratory tract irritation.
Medical conditions aggravated by exposure	None known.

3. Composition / Information on Ingredients

Components	CAS #	Percent (wt/wt)
Citric Acid	77-92-9	60 - 100

Composition comments	Information for specific product ingredients as required by the WHMIS Regulations is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation.
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4. First Aid Measures

First aid procedures	
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Take off contaminated clothing and wash before reuse. Get medical attention if irritation develops and persists.

Eye contact	URGENT! Immediately flush eyes with plenty of low-pressure water for at least 20 minutes while removing contact lenses. Hold eyelids apart. Get immediate medical attention.
Ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. Call a physician immediately. Dilute contents of stomach using 2-8 fluid ounces (60-240ml) of milk or water.
Notes to physician	No specific antidotes are recommended.

5. Fire Fighting Measures

Extinguishing media	
Suitable extinguishing media	Dry chemical, CO2, water spray or regular foam.
Protection of firefighters	
Protective equipment for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray. Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).
Explosion data	
Sensitivity to static discharge	Not available.
Sensitivity to mechanical impact	Not available.

6. Accidental Release Measures

Personal precautions	Wear appropriate protective equipment and clothing during clean-up. Avoid contact with spilled material. See Section 8 of the MSDS for Personal Protective Equipment.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.
Methods for cleaning up	Ventilate area, use specified protective equipment. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Spill residue may be neutralized with soda ash.

7. Handling and Storage

Handling	corrosive to the eyes
Storage	Keep container tightly closed in a dry and well-ventilated place.

8. Exposure Controls / Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Engineering controls	Adequate ventilation to maintain air contaminants below exposure limits.
Personal protective equipment	
Eye/face protection	Chemical goggles are recommended. Splash proof chemical goggles.
Skin protection	Wear suitable protective clothing. Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Chemical resistant apron. Glove selection must take into account any solvents and other hazards present. neoprene gloves Wash off after each use. Replace as necessary.
Respiratory protection	If air-purifying respirator use is appropriate, use any of the following particulate respirators: N95, N99, N100, R95, R99, R100, P95, P99 or P100.

9. Physical & Chemical Properties

Appearance	
Physical state	Granules
Color	White
Odor	None
Odor threshold	Not available.
pH in aqueous solution	2.2 (0.1N SOL.)
Vapor pressure	< 1 mm Hg
Vapor pressure temp.	70 °F (21 °C)

Vapor density	< 1 (Air = 1)
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	> 50 %
Specific gravity (70°F, 21°C)	Not available.
Flash point	> 212 °F (> 100 °C) P-M(CC)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Evaporation rate	< 1 (Ether = 1)
Viscosity temperature	70 °F (21 °C)
Percent volatile	0 (ASTM 3960-93)

10. Chemical Stability & Reactivity Information

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Not available.
Incompatible materials	Strong oxidizing substances. Contact with strong bases may cause a violent reaction releasing heat.
Hazardous decomposition products	Oxides of carbon evolved in fire.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product	Species	Test Results
MC-1 (CAS Mixture)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
Citric Acid (CAS 77-92-9)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	5400 mg/kg

12. Ecological Information

Ecotoxicity	No ecotoxicity data noted for the ingredient(s).
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13. Disposal Considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Waste from residues / unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

TDG

Not regulated as dangerous goods.

DOT

Not regulated as a dangerous good.

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IMDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

15. Regulatory Information

WHMIS status	Controlled
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WHMIS classification D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

List of abbreviations	Not available.
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HMIS® ratings

Health:	3
Flammability:	1
Physical hazard:	0
Personal protection:	B

NFPA ratings

Health:	3
Flammability:	1
Instability:	0
Special hazards:	NONE

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

<p>This data sheet contains changes from the previous version in section(s):</p>	<p>Product and Company Identification: Physical States Physical & Chemical Properties: Multiple Properties Transport Information: Material Transportation Information GHS: Classification</p>
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