



MATERIAL SAFETY DATA SHEET

ClearFloc CP4070

Section 01 - Product And Company Information

Product Identifier ClearFloc CP4070

Product Use Cationic flocculant or coagulant aid in mining, municipal, wastewater and industrial water treatment.

Supplier Name..... ClearTech Industries Inc.
1500 Quebec Avenue
Saskatoon, SK. Canada
S7K 1V7

Prepared By..... ClearTech Industries Inc. Technical Department
Phone: 1 (800) 387-7503

Preparation Date..... November 16, 2012

24-Hour Emergency Phone..... 1 (800) 387-7503

Section 02 - Composition / Information on Ingredients

Hazardous Ingredients..... Cationic water-soluble polymer.

CAS Number..... Not applicable

Synonym (s)..... None

Section 03 - Hazard Identification

Inhalation..... Mildly irritating if breathing in dusts created.

Skin Contact / Absorption..... May cause some mild irritation including redness and itching.

Eye Contact..... May cause mild irritation including some stinging and redness.

Ingestion..... Ingesting small amounts is not likely to cause serious effects.



Exposure Limits..... Not available

Section 04 - First Aid Measures

Inhalation..... Although no hazards are expected which may require first aid care, remove victim to fresh air if breathing becomes difficult. Seek medical attention if symptoms persist.

Skin Contact / Absorption..... Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.

Eye Contact..... Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek medical attention if irritation persists.

Ingestion..... Although considered non-toxic, seek medical attention if ingested.

Additional Information..... Not available

Section 05 - Fire Fighting Measures

Conditions of Flammability..... Non-flammable

Means of Extinction..... Use appropriate extinguishing media for material causing fire. All are suitable (dry chemical, foam, carbon dioxide, water, water spray).

Flash Point..... Not applicable

Auto-ignition Temperature..... Not applicable

Upper Flammable Limit Not applicable

Lower Flammable Limit..... Not applicable

Hazardous Combustible Products.... Thermal decomposition may produce hydrogen chloride gas and oxides of nitrogen and carbon.

Special Fire Fighting Procedures..... Wear NIOSH-approved self-contained breathing apparatus and protective clothing.



Explosion Hazards..... Not available

Section 06 - Accidental Release Measures

Leak / Spill..... Wear appropriate personal protective equipment. Ventilate area. Prevent material from entering sewers. Remove spills promptly by sweeping or vacuuming as they may make floors slippery. Spilled material that comes in contact with water will create very slippery conditions. Trace amounts can be flushed away with water.

Deactivating Materials..... Not available

Section 07 - Handling and Storage

Handling Procedures..... Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Spilled material that comes in contact with water will create very slippery conditions.

Storage Requirements..... Store in closed containers at temperatures 0-35°C. Avoid contact with water. Product shelf life expected to be 24 months when storage requirements are followed.

Section 08 - Personal Protection and Exposure Controls

Protective Equipment

Eyes..... Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

Respiratory..... Dust safety masks are recommended where concentration of total dust is more than 10 mg/m³.

Gloves..... Impervious gloves of chemically resistant material (rubber) should be worn. Wash contaminated clothing and dry thoroughly before reuse.

Clothing..... Body suits, aprons, and/or coveralls of chemical resistant material should be worn. Wash contaminated clothing and dry thoroughly before reuse.

Footwear..... No special footwear is required other than what is mandated at place of work.



Engineering Controls

- Ventilation Requirements**..... Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided. Supply sufficient replacement air to make up for air removed by exhaust systems.
- Other**..... Keep an eye wash fountain and safety shower available and in close proximity to work area.

Section 09 - Physical and Chemical Properties

- Physical State**..... Solid
- Odor and Appearance**..... Odorless, white granules
- Odor Threshold**..... Not applicable
- Specific Gravity (Water=1)**..... Not available
- Vapor Pressure (mm Hg, 20°C)**..... Not applicable
- Vapor Density (Air=1)**..... Not available
- Evaporation Rate**..... Not available
- Boiling Point**..... Not applicable
- Freeze/Melting Point**..... Not applicable
- pH**..... 2.5-4.5 at 5g/L
- Water/Oil Distribution Coefficient**..... Not available
- Bulk Density**..... Approx. 0.80g/cm³
- % Volatiles by Volume**..... Not available
- Solubility in Water**..... Completely miscible
- Molecular Formula**..... Not available
- Molecular Weight**..... Not available

Section 10 - Stability and Reactivity

- Stability**..... Product is stable under normal conditions.



Incompatibility..... Oxidizing agents may cause exothermic reactions.

Hazardous Products of Decomposition.... Oxides of nitrogen and carbon, hydrogen chloride gas.

Polymerization..... Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Irritancy..... Mild irritant by inhalation.

Sensitization..... The results of testing on guinea pigs showed this material to be non-sensitizing.

Chronic/Acute Effects..... Acute testing showed material to be non-toxic, even at high levels, to rabbits. Chronic toxicity testing on rats and dogs showed no adverse health effects during a one year study. Testing on rabbits showed material to be non-irritating to skin. Testing done showed material produces slight effects to the eyes similar to those which all granular materials have shown.

Synergistic Materials..... Not available

Animal Toxicity Data..... LD₅₀(oral, rat): > 5000mg/kg

Carcinogenicity..... Not available

Reproductive Toxicity..... Not available

Teratogenicity..... Not available

Mutagenicity..... Not available

Section 12 - Ecological Information

Fish Toxicity..... LC₅₀(Fish, 96 hr): 5-10mg/L
EC₅₀(Daphnia magna, 48 hr): 20-50mg/L

Biodegradability..... Product does not bioaccumulate. At pH >6, polymer degrades due to hydrolysis to more than 70% in 28 days. Hydrolysis products are not harmful to aquatic life.

Environmental Effects..... Effects of product on aquatic organisms are rapidly and significantly mitigated by dissolved organic carbon in the aquatic environment.



Section 13 - Disposal Consideration

Waste Disposal..... Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 - Transport Information

TDG Classification

Class..... Not regulated

Group..... Not regulated

PIN Number..... Not regulated

Other..... Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 16 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 - Regulatory Information

WHMIS Classification.....Not a controlled product

Revision Date.....February 11, 2014

NOTE: THE PRODUCT LISTED ON THIS MSDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS MSDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 - Other Information

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / MSDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward



the attached Material Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service or technical service department.

ClearTech Industries Inc. - Locations

Corporate Head Office: 1500 Quebec Avenue, Saskatoon, SK, S7K 1V7

Phone: 1 (800) 387-7503

Fax: 1 (888) 281-8109

www.ClearTech.ca

Location	Address	Postal Code	Phone Number	Fax Number
Richmond, B.C.	12431 Horseshoe Way	V7A 4X6	1 (800) 387-7503	1 (888) 281-8109
Port Coquitlam, B.C.	2023 Kingsway Ave	V3C 1S9	1 (800) 387-7503	1 (888) 281-8109
Calgary, AB.	5516E - 40 th St. S.E.	T2C 2A1	1 (800) 387-7503	1 (888) 281-8109
Edmonton, AB.	11750 - 180 th Street	T5S 1N7	1 (800) 387-7503	1 (888) 281-8109
Saskatoon, SK.	19 Peters Ave, North Corman Park	S7K 1V7	1 (800) 387-7503	1 (888) 281-8109
Regina, SK.	555 Henderson Drive	S42 5X2	1 (800) 387-7503	1 (888) 281-8109
Winnipeg, MB.	340 Saulteaux Crescent	R3J 3T2	1 (800) 387-7503	1 (888) 281-8109
Mississauga, ON.	7480 Bath Road	L4T 1L2	1 (800) 387-7503	1 (888) 281-8109

24 Hour Emergency Number - All Locations – 1 (800) 387-7503