

Request for Proposals No. 23-053

Supply and Delivery of Wastewater Treatment Chemicals for French Creek Pollution Control Centre (FCPCC)

Issued: October 6, 2023

CLOSING DATE AND TIME:

Submissions are requested to be received on or before:

3:00 PM (15:00 hrs) Pacific Time on October 31, 2023

Regional District of Nanaimo (RDN) Contact for Questions:

Adrian Limpus Engineering Technologist, Wastewater Services Email: <u>alimpus@rdn.bc.ca</u>

To schedule Jar Tests, please contact: Date: October 6 to 27, 2023 Location: French Creek Pollution Control Centre Contact: Ian Lundman, FCPCC Chief Operator ilundman@rdn.bc.ca

Jar Testing of each recommended product is mandatory prior to submission. Test Results must be attached to submission.

Questions should be received at least three (3) business days before the closing date.

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1. Introduction

1.1 Invitation to Suppliers

The Regional District of Nanaimo is interested in procuring chemicals for use in the treatment of wastewater at French Creek Pollution Control Centre.

French Creek Control Centre (FCPCC) treats wastewater from Parksville, Qualicum Beach, and service areas in Electoral Area E and G. FCPCC treats wastewater to a secondary level with a trickling filter/solid contact process. FCPCC also uses autothermal thermophilic aerobic digesters (ATADs) to prepare Class A biosolids.

The location, type, and wastewater treatment process where the chemicals/products would be used are identified below:

Location	Type of Product	Wastewater Treatment Process
French Creek Pollution Control Centre	Liquid Cationic Flocculant	Waste Biological Sludge (WBS) Thickening
	Dry Powder Polymer	Dewatering Polymer

Incumbent products are listed in the Table in Section 3.0 - 5 Incumbent Products, Estimated Consumption, and Packaging and Typical Order Size.

1.1 Mandatory Jar Testing

Jar testing of the products at French Creek Pollution Centre is mandatory PRIOR to submitting a proposal. Test Results must be attached to submission.

Jar testing will be scheduled with:

Ian Lundman FCPCC Chief Operator <u>ilundman@rdn.bc.ca</u>

1.2 Term

The contract will be for a four (4) year term. Fixed pricing is required over the first one year of the term. Annual fixed pricing for each subsequent year will be based upon mutual agreement and successful price negotiations between both parties confirmed in writing. The contract will be amended annually to reflect that year's agreed to pricing.

2. Instructions to Proponents

2.1 Closing Time

Proposals are to be received on or before the closing time of 3:00 PM (15:00 hrs.), Pacific Time, October 31, 2023.

By Email: With "23-053 FCPCC Chemicals" as the subject line to this email address alimpus@rdn.bc.ca

2.2 Amendments to Proposals

Proponents may amend their proposals prior to the closing time by sending an email to alimpus@rdn.bc.ca Such amendments should be signed by the authorized signatory of the Proponent.

2.3 Withdrawal of Proposals

Responses may be withdrawn before the deadline upon written notice to the RDN Contact for Questions identified above.

Revisions will be accepted providing written notice is given to the RDN Contact for Questions or designate at least twenty-four (24) hours before the closing time.

2.4 Late Submissions

Submissions received after the closing time will not be evaluated.

2.5 Agreement

The successful Proponent agrees that by submitting a Proposal, the Proponent agrees to all the terms and conditions in this Request for Proposals.

2.6 Not a Tender Call

This process is an RFP not a Tender call.

2.7 Contract for Services

The successful Proponent(s) will be expected to sign a Contract for Services. The Contract for Services must be fully executed by both the RDN and successful Proponent prior to commencement to supply and delivery of this product.

The RDN's preferred Contract for Services is provided, and includes the following:

- RDN Supply Agreement (Appendix D)
- Technical Specifications and Requirements (see Section 3.0)
- Appendix A Submission Form
- Addenda issued (if applicable).
- Certificates of Insurance

3. Technical Specifications and Requirements

3.1 Deliverables

1. General

- Products must be compatible with the RDN's existing chemical delivery and mixing equipment.
- Products must have been jar tested prior to submission at either French Creek Pollution Control. Please provide a jar test for each type of chemical (ie dewatering, waste biological sludge (WBS)) included in your submission. Jar test results must be attached to submission.
- Please refer to Appendix B for a Sample Jar Test Report. Jar test results need to include optimal dose and settling time. It also is recommended to include pictures of settling at various dosing levels.

2. Product Specifications

Chemicals must meet the following minimum specifications to be considered.

- Shelf Life: Six (6) months minimum.
- Low toxicity with respect to contact with skin and eyes and to accidental ingestion or inhalation.
- Very low to no downstream environmental toxicity

3. Function of Chemical in Wastewater Treatment Process

Dewatering Polymer

- Dry Dewatering Polymer compatible with the RDN's existing mixing equipment (Schenck Accurate DD4 Dry Polymer System) (Figure 1).
- Powdered solid polymer is mixed with fresh water to produce a liquid polymer that is stored in batch process tanks. When operating the centrifuges, this liquid polymer is pumped from the batch process tanks and is mixed with the digested solids at 2 different points, both just prior to entering the rotating Alfa Laval centrifuge.
- Sludge entering the centrifuge is at a high temperature following treatment in autothermal thermophilic aerobic digesters (ATADs).
- The polymer assists in the solid-liquid separation process by coagulating the smaller particles to form larger ones. These larger particles are more easily separated using the centrifugal forces created in the spinning centrifuge. The solids then fall into a bin below the centrifuge to be disposed of offsite, and the liquids are collected in a sump before being pumped back to the headworks to go through the treatment process once again.

Waste Biological Sludge Polymer

• Waste Biological Sludge Polymer compatible with the RDN's existing mixing equipment (see Figure 2). WBS polymer needs to be supplied in drums as a liquid.

- Liquid polymer is first diluted (with fresh water) into a polymer blend unit, and then pumped to a solids-thickening rotary drum thickener. The polymer is mixed with waste biological sludge just prior to entering the rotary drum thickener. The polymer coagulates the smaller particles in the WBS material, to form larger particles.
- Water drains through the Rotary Drum Screens, leaving the larger particles (thickened sludge) to be pumped to the ATAD (Autothermal Thermophilic Aerobic Digester).
- The percent solids increase from ~ 1% in the WBS material, to ~7% in the thickened sludge which is pumped to the digesters.

4. Delivery Location

• French Creek Pollution Control Centre (FCPCC), 957 Lee Road, Parksville, BC

5. Incumbent Products, Estimated Consumption, and Packaging and Typical Order Size

Product	Incumbent Supplier	Product	Туре	2023 Estimated Consumption (kg)	Preferred Packaging Size	Typical Order Size
FCPCC Dewatering Polymer	Alumichem Canada Inc.	Wes-Floc 6204 A	Dry Powder Polymer	6,740 (9 Supersacs)	750 kg Supersac	1 Supersac
FCPCC Waste Biological Sludge Polymer	ClearTech Industries Inc.	ClearFloc CE 4055	Liquid Cationic Flocculant	4,900 (24 Drums)	204 kg Drums	2 Drums

Appendix C contains the Safety Datasheets for these products.

Note consumption can vary depending on the wastewater treatment process and may be different than estimated. The RDN does not guarantee or warrant any volume of orders per year.

6. Ordering and delivery

- Product ordered through email should be delivered within 14 days or receipt of order. All products are delivered to FCPCC.
- Deliveries will be made between the hours of 8:30 am to 4:00 pm.
- Should there be any delay in obtaining product, the RDN reserves to secure alternative product from any source without waving or voiding the terms and conditions.

8. Spills

The Proponent is responsible for cleaning up any spills in transport and when offloading the product at the RDN's facilities. The Proponent must meet all requirements of the *BC Spill Reporting Regulation*.

9. Transport and Delivery

The Proponent must comply with all Workplace Hazardous Materials Information Systems (WHMIS) in terms of chemical handling and comply with Transport of Dangerous Goods Requirements (TDG) where applicable when transporting the products to the RDN's facilities.



Figure 1 – Dewatering Polymer Mixing and Chemical Delivery System



Figure 2– Waste Biological Sludge Mixing and Chemical Delivery System

3.2 General Specifications

The work must be completed in accordance with all applicable federal, provincial, and municipal and local government laws, bylaws, regulations, codes, and standards.

The supplier is responsible for the overall management and administration for supplying the product to the RDN's facilities. Management must include the provision of competent management and administrative staff, appropriate liability insurance, permits, financing and other functions related to the contract administration.

The supplier will also comply with all statutory occupational health and safety requirements under or in connection with the *Workers Compensation Act* and *Occupational Health and Safety Regulation* in performance of the Services and the Contractor represents and warrants to the Regional District that it follows all requirements of the *Workers Compensation Act*, including with respect to registration and payment of assessments. The Contractor must also always comply with all site-specific safety and personal protective equipment (PPE) requirements.

The Supply Contractor must meet requirements of Wastewater Service's Environmental Management System (ISO 14001:2015). These requirements are specified in the department's Contractor-Supplier Package which must be signed by the successful Proponent. For more information, please refer to http://www.rdn.bc.ca/cms/wpattachments/wpID1133atID8478.pdf

4. General RFP Terms and Conditions

4.1 No Contract

By submitting a Request for Proposal and participating in the process as outlined in this RFP, proponents expressly agree that no contract of any kind is formed until a fully executed contract is in place.

4.2 Privilege Clause

The lowest or any proposal may not necessarily be accepted.

4.3 Acceptance and Rejection of Submissions

This RFP does not commit the RDN, in any way to select a preferred Proponent, or to proceed to negotiate a contract, or to award any contract. The RDN reserves the right in its sole discretion cancel this RFP, up until award, for any reason whatsoever.

The RDN may accept or waive a minor and inconsequential irregularity, or where applicable to do so, the RDN may, as a condition of acceptance of the Submission, request a Proponent to correct a minor or inconsequential irregularity with no change in the Submission.

4.4 Conflict of Interest

Proponents shall disclose in their Proposals any actual or potential Conflict of Interest and existing business relationships it may have with the RDN, its elected officials, appointed officials, or employees.

4.5 Solicitation of Board Members and RDN Staff

Proponents and their agents will not contact any member of the RDN Board or RDN Staff with respect to this RFP, other than the RDN Contact named in this document.

4.6 Litigation Clause

The RDN may, in its absolute discretion, reject a Proposal submitted by Proponent, if the Proponent, or any officer or director of the Proponent is or has been engaged either directly or indirectly through another corporation in legal action against the RDN, its elected or appointed officers and employees in relation to:

- (a) any other contract for works or services; or
- (b) any matter arising from the RDN's exercise of its powers, duties, or functions under the Local Government Act, Community Charter or another enactment within five years of the date of this Call for Proposals.

In determining whether to reject a Proposal under this clause, the RDN will consider whether the litigation is likely to affect the Proponent's ability to work with the RDN, its consultants and representatives and whether the RDN's experience with the Proponent indicates that the RDN is likely

to incur increased staff and legal costs in the administration of this Contract if it is awarded to the Proponent.

4.7 Exclusion of Liability

Proponents are solely responsible for their own expenses in preparing and submitting a Proposal, attending the site, accommodations, meals, travel, any meetings, providing RDN staff training, and any negotiations. The RDN will not be liable to any Proponent for any claims, whether for costs, expense, losses or damages, or loss of anticipated profits, or for any other matter whatsoever, incurred by the Proponent in preparing and submitting a Proposal, or participating in negotiations for a Contract, or other activity related to or arising out of this RFP. Except as expressly and specifically permitted in these Instructions to Proponents, no Proponent shall have any claim for compensation of any kind whatsoever, as a result of participating in this RFP, and by submitting a Proposal each Proponent shall be deemed to have agreed that it has no claim.

4.8 Ownership of Proposals

All Proposals, including attachments and any documentation, submitted to, and accepted by the RDN in response to this RFP become the property of the RDN.

4.9 Freedom of Information

All submissions will be held in confidence by the RDN. The RDN is bound by the Freedom of Information and Protection of Privacy Act (British Columbia) and all documents submitted to the RDN will be subject to provisions of this legislation. The successful vendor and value of the award is routinely released.

5. Evaluation

5.1 Evaluation Process

All decisions on the degree to which the chemicals recommended meet the stated evaluation criteria, compliance to Technical Specifications, and the scores assigned during the evaluations, are at the sole discretion of RDN.

Proposals submitted should be in enough detail to allow the RDN to determine the Proponent's qualifications and capabilities from the documents received. The selection committee, formed at the RDN's sole discretion, will score the Proposals in accordance with the criteria provided.

The RDN may evaluate proposals on a comparative basis by comparing one proponent's proposal to another proponent's proposal. The RDN reserves the right to not complete a detailed evaluation if the RDN concludes the proposal is materially incomplete or, irregular or contain any financial or commercial terms that are unacceptable to the RDN.

The selection committee may proceed with an award recommendation or the RDN may proceed to negotiate with the highest evaluated proponent with the intent of developing an agreement. If the parties after having bargained in good faith are unable to conclude a formal agreement, the RDN and the Proponent will be released without penalty or further obligations other than any surviving obligations regarding confidentiality and the RDN may, at its discretion, contact the Proponent of the next best rated Proposal and attempt to conclude a formal agreement with it, and so on until a contract is concluded or the proposal process is cancelled.

The RDN reserves the right to award the assignment in whole or in part or to add or delete any portion of the work. Throughout the evaluation process, the evaluation committee may seek additional clarification on any aspect of the Proposal to verify or clarify the information provided and conduct any background investigation and/or seek any additional information it considers necessary.

5.2 Mandatory Submission Requirements

Proposals not clearly demonstrating that they meet the following mandatory criteria will be excluded from further consideration.

Proposal must be received before the Closing Date and Time

The Proposal must be submitted on **Appendix A – Submission Form**

5.3 Compliance to Technical Requirements

Compliance to Technical Specifications will be assessed for each Polymer recommended:

Compliance to Technical Specifications (Section 3.0) as determined by the RDN in its sole discretion	Pass/Fail
Chemicals must have been Jar Tested by Supplier PRIOR to submission	Pass/Fail

5.4 Stage 1 – Shortlisting Submissions

Products will be ranked in accordance with the following criteria. Shortlisting will be completed for each of the 3 request chemical types.

Criteria	Evaluation Points
Rate (\$/kg)	40%
Jar Test Results (Sample Report provided in Appendix B)	
 Provide jar test results for each chemical 	20%
recommended	
Technical Criteria:	
Proponent Experience and Qualifications	
Use of Chemical in Similar Wastewater Applications	40%
Service and Quality Commitments	
Sustainability	

* For products formulated for specific use at FCPCC or NBPCC, provide information on products of a similar nature that your firm has supplied to wastewater treatment plants with similar wastewater treatment processes where the chemicals are used in a similar function.

5.5 Stage 2 - Operational Trial

The RDN will shortlist up to three products with highest evaluation score in the Stage 1 process.

Shortlisted Proponents will be invited to participate in an operational trial in which their recommended chemicals will be used in the wastewater treatment process at FCPCC and NBPCC for a period of up to three-weeks in length.

The RDN will purchase chemicals needed for this trial. However, suppliers will provide only the chemicals needed for the trial. Suppliers will also permit the RDN to return unused chemical at the end of the trial period without a restocking fee.

Products will be ranked according to the following criteria based on the operational trial results:

Criteria	Evaluation Points
Financial Criteria (Estimated based on Pricing & Dose)	40%
 Operational Trial Results Performance of chemical in wastewater treatment process based on technical and qualitative criteria. Operational trial criteria will be established based on the RDN's sole discretion. 	40%
Quality Control, Service Level Commitments, Sustainability	20%

5.6 Proof of Concept

Products selected may be tested for an additional 3 weeks following both stages of the evaluation process to optimize the products tested operationally to meet operational requirements. In the event, testing shows the product as failing to meet operational requirements, and the Supplier is unable to resolve the issue to the RDN's satisfaction, the Regional District may move on to the next ranked Proponent without further liability, damage, or cost to the RDN.

5.7 Product Performance

(i) If during the Contract term, the chemical is found to be losing its' effectiveness and/or product dosage increases to a level that is unacceptable to the Regional District, the Supplier will make every effort to improve such performance within 10 working days of notification.

(ii) Any product substitution suggested by the incumbent supplier will perform equal to and/or better than the initial full-scale evaluation or baseline performance. Additionally, any product substitution will be formally pre-approved by the Regional District and supplied at the unit price in effect at the time of contract issuance.

(iii) If the substitute cannot be supplied at the same cost or a more effective chemical cannot be found, the Regional District will have the right to contact other Suppliers to supply effective wastewater treatment chemicals.

APPENDIX A – SUBMISSION FORM

REQUEST FOR PROPOSALS No. 23-053 FCPCC Wastewater Treatment Chemicals SUBMISSION FORM

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Please provide pricing in Canadian Dollars, including delivery fees, but excluding any taxes, F.O.B. destination to:

French Creek Pollution Control Centre 957 Lee Road Parksville, BC, Canada

Required Pricing Information (exclusive of GST/PST) – *please only include what your firm can supply.*

Product	Recommended Product	Description	Unit Price (\$/kg)	Recommended Dosing Rate (kg/dry ton solids)
FCPCC Dewatering Polymer				
FCPCC Waste Biological Sludge Polymer				

Please also attach Safety Datasheets (SDS's) for all products listed above.

Required Pricing Information Terms and Conditions:

- a) Rates quoted by the proponent must be all inclusive and include all labour and material costs, all transport costs, insurance, costs of delivery, installation, and all other costs to supply product to the RDN's facilities.
- b) The quantities provided are estimates only based on historical averages and will be used to compare bids. Actual quantities ordered may vary depending on operational need. The RDN does not guarantee or warrant any volume of orders per year.
- c) The Regional District of Nanaimo reserves the right, in its sole discretion, to award all of the items, or none of the items. The lowest, or any bid, may not necessarily be accepted.
- d) Pricing is in Canadian Dollars and fixed for a period of one year from the date of notification of award.
- e) The RDN does not pay fuel surcharges.

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Technical Criteria:

1. Client References (please enter responses directly into Table below). References may be contacted to allow the evaluation team to obtain more information on use of the polymer in similar process applications, quality, and service level commitments.

Provide contact information of 3 current wastewater customers for the recommended polymer in the Table below. Provide references from customers that are using their recommended product from a wastewater treatment process. If the product has been specifically formulated for use in the, provide references from customers using products of a similar nature as proposed.

Name of Product	Organization / Reference Name	Telephone	Email
FCPCC Dewatering Polymer			
FCPCC Waste Biological Sludge Polymer			

Please only provide information for products which can be supplied by your firm:

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IMPORTANT NOTE: Enter responses directly into the Submission Form. Completed and signed Submission Form must be submitted by email to <u>alimpus@rdn.bc.ca</u> before the Closing Time.

The final Submission Form must be signed. Proponents have the choice of using an e-signature, or to print off the filled-out form, sign, and send in a scanned version by email. If sending in a scanned version, please ensure to open the form to ensure all pages scanned properly.

Respondents can also submit background material to provide further detail pertaining to the questions. Please keep background material concise in nature (maximum of 5 pages of background material preferred)

2. Use of Polymer in Similar Wastewater Applications (see submission instructions above)

(i) Provide a list of wastewater treatment plants which currently use the products identified. How the use of the products similar to their proposed use at FCPCC?

(ii) What are the advantages of each of the products you recommend in comparison to other products in the market?

(iii) Explain how your products would be compatible with the RDN's existing chemical delivery and mixing equipment? Provided details for all the chemicals your firm is proposing to supply.

(iv) What is your packaging size (see Section 3.0)? Can you deliver according to the preferred package (see Table in Section 3.0 5. Incumbent Products, Estimated Consumption, and Packaging and Typical Order Size) If not, how would your proposed packaging size be compatible with the RDN's existing equipment?

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3. Company Experience and Qualifications (see submission instructions on page 3 of Submission Form)

(i) Provide a brief description of your company.

(ii) Provide an executive summary describing the Proponent's relevant experience and qualifications in delivering services like those required in this RFP.

(iii) Provide relevant background and experience of all key personnel involved in providing the deliverables including any subcontractors.

4. Quality Control and Service Level Commitments (see submission instructions on page 3 of Submission Form)

(i) Detail product quality control measures.

(ii) Provide details on chemicals ordering and delivery services. How will firm ensure uninterrupted supply of this product to ensure stability of the wastewater treatment process?

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4. Quality Control and Service Level Commitments (continued) (see submission instructions on page 3 of Submission Form)

(iii) Provide service level commitments for request response times and lead times upon initiation of order to delivery.

(iv) What is the shelf-life of each of the recommended chemicals?

(v) What is your return policy for each product? Provide information on payment for return freight and whether restocking fees would apply.

5. Sustainability

(i) Does your firm allow for return of empty containers?

ii) Describe any sustainable processes/technologies employed during the production process?

iii) How does your firm reduce greenhouse gases from the transport of the chemicals?

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ACCEPTANCE:

The undersigned has examined REQUEST FOR PROPOSAL 23-053 and having full knowledge of the requirements of the Owner, do hereby agree to be bound by the Terms, Conditions, Statements and Representations contained herein:

Company Name & Mailing Address:

Phone No:

Contact Name:

Email:

Signature:

E-signatures may be used. Another option is to print, sign, and send in a scanned copy of the form.

Date:

Note: Jar Test Report must be attached to Submission (see Appendix B for Sample Report)

APPENDIX B – JAR TEST REPORT

Sample Report

Dose	
Settling Time	
Vessel Material	

Pictures

Dose

5 minutes

10 minutes

30 minutes

Optimal Dose:

Settling Time:

APPENDIX C – SAFETY DATASHEETS



Safety Data Sheet

Version 1.1

Wes-Floc 6204 A

Date of Issue: March 1 2021

Date of Last Revision: March 1 2021

1. Identification

Product identifier	
Product name :	Wes-Floc 6204 A
Alternate names :	None.
Other means of identification	
Chemical name :	Cationic polyacrylamide co-polymer.
Chemical family :	Organic polymer.
Recommended use of the chemic	cal and restrictions on use
Recommended use :	Chemical flocculant for municipal and industrial applications.
Uses advised against :	No known restrictions against use.
Initial supplier identifier	
Company :	Waterhouse Environmental Services Corporation, 400 601 West Broadway, Vancouver, British Columbia, V5Z 4C2, CANADA.
Telephone :	+1 888 921 3317.
Email :	information@waterhousechemicals.com.
Emergency telephone number CANUTEC :	+1 613 996 6666.

2. Hazard Identification

Classification of t	he product	
Hazard class	Category	Hazard statement
Acute aquatic toxicity	Category 2	H 401 – Toxic to aquatic life.

Label elements Hazard symbols :	¥2	
Signal word :	Warning.	
Precautionary statements :	Prevention	
	P 210	Keep away from open flame and other ignition sources.
	P242	Use only non-sparking tools.
	P 243	Take precautionary measures against static discharge.
	P 273	Avoid release to the environment.
	P 284	In case of inadequate ventilation, wear respiratory protection.
	<u>Response</u>	
	P301+P330+P331+P313	IF SWALLOWED : Rinse mouth. Do NOT induce vomiting. Get medical attention.
	P302+P362+P352+P314	IF ON SKIN : Take off contaminated clothing. Wash with plenty of water and soap. Get medical attention if you feel unwell.
	P304+P340+P314	IF INHALED : Remove person to fresh air and keep comfortable for breathing. Get medical attention if you feel unwell.
	P305+P351+P314	IF IN EYES : Rinse cautiously with water for several minutes. Get medical attention if you feel unwell.
	<u>Storage</u>	
	P 232	Protect from moisture.
	P 235	Keep cool.
	P 402	Store in a dry place.
	P 405 + P 233	Store locked up. Keep container tightly closed.
	<u>Disposal</u>	
	P 501	Dispose of contents and containers in accordance with local, regional, national, and international regulation.

Hazards not otherwise classified (HNOC) Spills of this product will produce extremely slippery surfaces when wetted. May form combustible dust concentrations in the air.

Other non-GHS classifications

HMIS Rating	
Health	1
Flammability	1
Reactivity	0
885	D
PPE	Б
NFPA Rating	
NFPA Rating	
NFPA Rating Health Flammability	1
NFPA Rating Health Flammability Reactivity	1 1 0

3. Composition / Information on Ingredients

Composition of product		
Concentration. (W/W%)	CAS Number	Chemical Identity
< 2.5%	124-04-9	Adipic acid
< 2.5%	5329-14-6	Sulfamic acid

4. First-Aid Measures

Description of necessary first-aid measures			
Ingestion :	Rinse mouth and drink plenty of water. Check breathing and pulse. Place the casualty in the recovery position, cover, and keep warm. Loosen tight clothing such as collar, tie, belt, or waistband. Get medical attention, or call Poison Control if necessary. Do NOT induce vomiting or give anything by mouth if the casualty is unconscious or having convulsions.		
Skin contact :	Remove any contaminated clothing and shoes. Wash exposed skin thoroughly with soap and water $15 - 20$ minutes. Seek medical attention if irritation develops and persists.		
Inhalation :	If breathing difficulties occur after inhalation of dust, keep the patient calm, remove to fresh air and seek medical attention.		
Eye contact :	Flush with water for at least 15 minutes with eyelids held open. Lift upper and lower eye lids to ensure all chemical is completely removed. Consult an eye specialist if eye irritation persists.		

Most important symptoms and effects

Symptoms include possible eye and skin irritation and central nervous system depression. The most important symptoms and effects are described in Section 2 : "Hazard Identification" and Section 11 : "Toxicological Information". Further important symptoms are not known.

Indication of any immediate medical attention and special treatment needed

Treat according to individual response to, and location of, exposure. There are no known specific antidotes or contraindications.

5. Fire-Fighting Measures

Extinguishing media

Extinguish fire using dry powder, carbon dioxide, or foam.

If water is used, restrict pedestrian and vehicular traffic in the area because this product is extremely slippery when wetted. If possible, avoid high pressure media which may cause the formation of a combustible dust concentration in the air.

Specific hazards arising from the product

 Fire-fighting hazards :
 Nitrogen oxides (NO_x), carbon oxides (CO_x), and hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

 Other hazards :
 This product is extremely slippery when wet. Dusty conditions may ignite explosively in the presence of an ignition source and cause a flash fire.

Special protective actions for fire-fighters

Wear a self-contained breathing apparatus.

Further information

Evacuate non-emergency personnel from the area. Dispose of contaminated extinguishing water in accordance with local, regional, national, and international regulations.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Personal precautions :	Avoid dispersal of dust in the air, such as clearing dust surfaces with compressed air. Dust in sufficient concentration may result in an explosive mixture in air. Eliminate open flame and any other sources of ignition. The use of non-sparking tools is recommended. Avoid walking through any spilt product or areas where slip hazard may exist; this product becomes extremely slippery when wetted. Handle in accordance with good industrial hygiene and safety practices.		
Protective equipment :	Wear adequate personal protective equipment (See Section 8 : "Exposure Controls/Personal Protection").		
Emergency procedures :	Prevent further leakage or spillage if safe to do so.		

Keep people away from spill/leak until clean-up is completed.

Environmental Precautions

Do not flush into drains, surface water, or groundwater. Contain contaminated water/firefighting water.

Methods and material for containment and cleanup

Small spills :	Clean up by sweeping or vacuum.
	Do not flush with water as it will cause a slip hazard.
	Keep the product in a suitable, closed container for disposal.

Large spills : Clean up by sweeping or shoveling. Do not flush with water as it will cause a slip hazard. Contain with a dust binding inert absorbent material. Keep the product in a suitable, closed container for disposal. Residue :

Soak up any residue using an inert absorbent material After clean-up, flush away any trace material with water. Use a common salt, such as sodium chloride, to aid in the removal of residue.

Further information

Use of non-sparking tools is recommend for clean-up and whenever working with dry powder polymers.

7. Handling and Storage

Precautions for safe handling

General precautions :	Avoid contact with skin and eyes. Avoid breathing dust. Breathing must be protected without local exhaust ventilation. Avoid application of product where slip hazard may exist. When using the product, do not eat, drink, smoke, or use tobacco. Wash hands before breaks and at the end of the workday.
Fire and explosion precautions :	 Avoid dust formation. Routine housekeeping should be instituted to prevent accumulation of dusts on surfaces. Provide adequate precautions for static discharge, such as electrical bonding and grounding. Eliminate open flame and any other sources of ignition. Dry powders may build up static electrical charges during transfer and mixing. Refer to "NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition)" for further information on safe-handling.

Conditions for safe storage including any incompatibilities

Store closed in the original container in a cool, dry place. Avoid wet, damp, or humid conditions. Avoid temperature extremes and ignition sources. Protect from temperatures above 60° C. Store away from strong oxidizing agents.

8. Exposure Controls / Personal Protection

Control parameters

Any component not listed has no established occupational exposure limits.

Component name	Regulation	Exposure Limit
Adipic acid	OSHA (8-hour TWA)	5 mg/m³
	OSHA (15 minutes)	15 mg/m³
	ACGIH (8-hour TWA)	5 mg/m³
	NIOSH (10-hour TWA)	Not established.

Appropriate engineering controls

Ensure adequate ventilation. Avoid the formation and deposition of dust. It is recommended that all dust control equipment involved in the handling of this product either contain explosion relief vents, contain an explosion suppression system, or is used in an oxygen deficient environment. Ensure that dust-handling systems, such as exhaust dusts, dust collectors, vessels, and processing equipment, are designed in a matter to prevent the escape of dust into the work area. Use only appropriately classified electrical equipment and powered industrial trucks.

Individual protection measured	ures
Eye and face protection :	Do not wear contact lenses. Use splash resistant chemical goggles or face shield. Maintain an eye wash fountain in the handling area.
Skin protection :	Wear chemical resistant PVC or other protective material gloves and boots. If splashing or repeated contact with the product is likely, wear a chemical resistant apron or protective suit.
Respiratory protection :	No personal protective equipment normally required. If working powder concentrations are more than 10 mg/m ³ , then a NIOSH- certified (or equivalent) organic vapour/particulate respirator is recommended.
General safety and hygiene measures :	Handle in accordance with good industrial hygiene. Ensure adequate ventilation. Wearing of closed work clothes is recommended. Wear protective clothing as necessary to minimize contact with the product. When using the product, do not eat, drink, smoke, or use tobacco. Wash hands before breaks and at the end of the workday.

9. Physical and Chemical Properties

Appearance	Off-white powder.
Odour	None.
Odour threshold	No data available.
рН	2.5 – 4.5 at 5 g/l
Melting point/freezing point	>100 [°] C.
Initial boiling point and boiling range	No data available. Product decomposes.
Flash point	Not applicable. Product is a solid.
Evaporation rate	Product is a non-volatile solid.
Flammability (solid, gas)	Not flammable.
Lower explosive limit	Not applicable. Product is a solid.
Upper explosive limit	Not applicable. Product is a solid.
Vapour pressure	Not applicable. Product is a solid.
Vapour density	Not applicable. Product is a solid.
Bulk density	0.80 g/cm ³
Solubility	Soluble in water and polar solvents.
Partition coefficient (n-octanol/water)	-2
Auto-ignition temperature	Not applicable. Product is a solid.
Decomposition temperature	> 200°C
Brookfield Viscosity (Dilute)	700 mPa.s (cps) at 5.0 g/l 350 mPa.s (cps) at 2.5 g/l
Fuelesius energeties	120 mPa.s (cps) at 1.0 g/l
Explosive properties	Kst = 0 (Non-tiammable to ignition sources < 2.5 kJ)
Oxidizing properties	No data available.
Minimum ignition energy	2 – 5 kJ

All properties listed below are at 20°C and 101.3 kPa unless otherwise stated

10. Stability and Reactivity

Reactivity

No hazardous reactions are anticipated if the product is stored and handled as indicated. No known corrosive effect on metals. Not fire-propagating.

Chemical stability

Stable at normal temperatures and pressure. Stable if stored and handled as indicated.

Possibility of hazardous reactions

This product does not undergo hazardous polymerization. Oxidizing agents may cause exothermic reactions. Buildup of fine dust may lead to a risk of dust explosions, but the product does not present a dust explosion risk as supplied.

Conditions to avoid

Avoid extreme temperatures, humidity, dust formation, and electrostatic discharge.

Incompatible materials

Incompatible with strong acids, strong bases and strong oxidizing agents.

Hazardous decomposition products

Thermal decomposition may produce nitrogen oxides (NO_X), carbon oxides (CO_X), ammonia and hydrogen cyanide (hydrocyanic acid) in an oxygen deficient atmosphere. No hazardous decomposition products under normal usage, if stored and handled as indicated.

11. Toxicological Information

Acute oral toxicity :	Value : Method : Assessment :	LD50/oral/rat > 5000 mg/kg. OECD Guideline 401. No known acute oral effects.
Acute dermal toxicit	ty :	
	Value :	LD50/dermal/rat > 5000 mg/kg
	Method :	OECD Guideline 402.
	Assessment :	No known acute dermal effects.
Acute inhalation tox	cicity :	
	Value:	No data available.
Skin irritation/corros	sion :	
	Species :	Rabbit.
	Method :	OECD Guideline 404.
	Assessment :	Not irritating to skin.

Information on acute toxicological effects Wes-Floc 6204 A

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Safety Data Sheet

Serious eye dama	age/irritation :	
	Species :	Rabbit.
	Method :	OECD Guideline 405.
	Assessment :	Not irritating to eyes.
Respiratory or ski	in sensitisation :	
	Method :	Derived from the components of the product.
	Assessment :	No suspicion of skin or respiratory sensitisation
Aspiration hazard	I:	
	Method :	Derived from the properties of the product.
	Assessment :	No suspicion of aspiration hazard.
Single target orga	an toxicity – single expo	osure :
	Method :	Derived from the components of the product.
	Assessment :	None known

Information on chronic toxicological effects Wes-Floc 6204 A

Repeated dose toxicit	ty : Method :	Derived from the components of the product.
	Assessment :	No suspicion of adverse health effects from repeated dose.
Germ cell mutagenici	tv :	
Ū	Method :	OECD Guideline 476.
	Assessment :	Not mutagenic.
Carcinogenicity :		
	Method :	Derived from the components of the product.
	Assessment :	No suspicion of being carcinogenic.
Reproductive toxicity	:	
	Method :	Derived from the components of the product.
	Assessment :	No suspicion of being toxic for reproduction.
Teratogenicity :		
	Method :	Derived from the components of the product.
	Assessment :	No suspicion of being toxic for reproduction.
Single target organ toxicity – repeated exposure :		
	Method :	Derived from the components of the product.
	Assessment :	None known.

Primary routes of exposure

Primary routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes for entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Symptoms of exposure

Symptoms include possible eye and skin irritation and central nervous system depression. The most important symptoms and effects are described in this section and Section 2 : "Hazard Identification" Further symptoms are not known.

12. Ecological Information

Information on acute ecological effects Wes-Floc 6204 A

Acute toxicity to fish :				
-	Value :	LC50/ <i>Danio rerio</i> /96 hours = 5 – 10 mg/l LC50/fish/96 hours = 1 – 10 mg/l		
	Method :	OECD Guideline 203.		
	Assessment :	Toxic to fish.		
Acute toxicity to inve	rtebrates :			
	Value :	EC50/ <i>Daphnia magnia</i> /48 hours = 20 – 50 mg/l		
	Method :	OECD Guideline 202.		
	Assessment :	Harmful to invertebrates.		
Acute toxicity to alga	Acute toxicity to algae :			
	Value :	No data available. Algal inhibition tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.		
Acute toxicity to aquatic plants :				
	Value :	No data available.		
Information on chronic ecological effects Wes-Floc 6204 A				

Chronic toxicity to fis	h :	
	Value :	No data available.
Chronic toxicity to invertebrates :		
	Value :	No data available.
Chronic toxicity to algae :		
	Value :	No data available.
Chronic toxicity to aquatic plants :		
	Value :	No data available.

Persistence and degradability Wes-Floc 6204 A

Degradation :	Readily biodegradable.
Hydrolysis :	At pHs > 6, the polymer degrades more than 70% in 28 days. The hydrolysis products are not harmful to aquatic organisms.
Adipic acid	
Degradation :	Readily biodegradable.
Hydrolysis :	Does not hydrolyse.
Photolysis :	Primary degradation half-life (indirect photolysis) = 2.9 days

Safety Data Sheet

Sulfamic acid	
Degradation :	Not applicable. Sulfamic acid is inorganic.
Hydrolysis :	Does not hydrolyse.
Bioaccumulative potential	
Wes-Floc 6204 A	
Partition coefficient (Log power) :	< 0
Adipic acid	
Partition coefficient (Log power) :	0.093 at 25°C and pH of 3.3
Sulfamic acid	
Partition coefficient (Log power) :	-4.34 at 20°C
Mobility in soil	
Wes-Floc 6204 A	
Adsorption to solid soil phase is expected	d due the properties of the product.

Other adverse effects

No other adverse effects are known.

Summary of ecological information

This product is toxic to fish and harmful to invertebrates and some algae.

The acute effects are due to the cationic charge of the polymer, but irreversible adsorption onto suspended and dissolved matter mitigates aquatic toxicity by a factor of 10 - 100 with 5 - 10 mg/l DOC in the water according to the US EPA "Dirty Water Test."

The product is not biologically available so accumulation in organisms is not to be expected.

There is currently no data available on the chronic effects of this product.

While it is not expected that this product has significant ecological effects, it is recommended this product not be discharged into the environment.

13. Disposal Considerations

Disposal methods

Dispose of in accordance with local, regional, national, and international regulations. Containers that cannot be cleaned should be disposed of in the same manner as the contents. Crushing or puncturing the contaminated containers is recommended to prevent unauthorized use of it. Uncontaminated containers can be reused. Do not dispose of into drains, surface water, or groundwater.

14. Transport Information

Land transport (TDG)

Not classified as a dangerous good under transport regulations.

Sea transport (IMDG)

Not classified as a dangerous good under transport regulations.

Air transport (IATA)

Not classified as a dangerous good under transport regulations.

15. Regulatory Information

Safety, health, and environmental regulations specific for the product

Domestic Substances List (DSL) :All components of this product are either listed on the inventory or are
exempt from listing.Ingredient Disclosure List (IDL) :No components listed on the WHMIS ingredient disclosure list.

16. Other Information

SDS prepared by :

Waterhouse Environmental Services Corporations.

Version number :

1.1

Date of issue : March 1 2021

March 1 2021

Date of last revision :

March 1 2021

Notice to readers :

This information is supplied in accordance with Canada's Hazardous Products Regulations (HPR) SOR/2015-17 and the U.S. Hazard Communication Standard (HCS).

The information provided in this Safety Data Sheet is correct to the best of our knowledge at the date of publication, but we cannot guarantee that the hazards listed are the only hazards that exist.

No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof is made, and Waterhouse Environmental Services Corporation assumes no responsibility.

END OF DATA SHEET



Safety Data Sheet

Section 01 Identification

Product Identifier	ClearFloc CE Series
	ClearFloc CE1055
	ClearFloc CE2055
	ClearFloc CE4050
	ClearFloc CE4055
	ClearFloc CE4558
	ClearFloc CE5050
	ClearFloc CE5057
	ClearFloc CE6055
	ClearFloc CE6067
	ClearFloc CE8050
	ClearFloc CE8055
	ClearFloc CE8056
	ClearFloc CE8057
Other Means of Identification	Not available
Product Use and Restrictions on Use	Cationic flocculant or coagulant aid in mining, municipal, wastewater and industrial water treatment.
Initial Supplier Identifier	ClearTech Industries Inc 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
	Phone: 800.387.7503 Fax: 888.281.8109 <u>www.cleartech.ca</u>
Prepared By	ClearTech Industries Inc. technical writer
24-Hour Emergency Phone	306.664.2522

Section 02 Hazard Identification

GHS-Classification

This product has been assessed in accordance with the Hazardous Products Regulations and is not classified as a hazardous substance or mixture.

Hazards Not Otherwise Classified

Extremely slippery when wet.

Supplemental Information

Not available

Section 03 Composition / Information on Ingredients

Ingredients:

The ingredients in this product are not classified as hazardous under the Hazardous Products Regulations

Section 04 First-Aid Measures

Description of necessary first-aid measures

Inhalation Get medical advice / attention if you feel unwell or are concerned.

Ingestion Get medical advice / attention if you feel unwell or are concerned.

Skin If skin irritation occurs or if you feel unwell: Get medical advice / attention. contact

Eye Gently brush product off face. Do not rub eyes. Let the eyes water naturally for a few minutes. Look right and left, then up and down. If particle / dust does not come out, cautiously rinse eye with lukewarm gently flowing water for 5 minutes or until particle / dust is removed, while holding the eyelids open. If eye irritation persists: Get medical advice / attention. Do not attempt to manually remove anything from the eyes.

Most important symptoms and effects, both acute and delayed

Inhalation	May cause respiratory irritation.
Ingestion	May cause discomfort or nausea.
Skin contact	May cause transient irritation or dryness.
Eye contact	May cause eye irritation and redness.
Further information	For further information see Section 11 Toxicological Information.

Section 05 Fire Fighting Measures

Suitable extinguishing media	Extinguish fire using extinguishing agents suitable for the surrounding fire.
Unsuitable extinguishing media	Water jets are not recommended in fires involving chemicals.
Specific hazards arising from the chemical	In the event of a fire oxides of carbon and nitrogen, and hydrogen chloride may be released. Contact with water will render surfaces extremely slippery.
Special protective equipment for fire-fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Section 06 Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment (See Section 08 Exposure Controls and Personal Protection). Stay upwind, ventilate area.
Environmental Precautions	Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.
Methods and Materials for Containment and Cleaning Up	SMALL SPILLS: Stop or reduce leak if safe to do so. Clean up spill with non-reactive absorbent and place in suitable, covered, labeled containers. Flush area with water. Contaminated absorbent material may pose the same hazards as the spilled product. LARGE SPILLS: Contact fire and emergency services and supplier for advice.

Section 07 Handling and Storage

Precautions for Safe Handling	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. Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label. Have suitable emergency equipment for fires, spills and leaks readily available. Never return contaminated material to its original container.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Protect label and keep it visible.
Incompatibilities	Oxidizing agents, such as oxygen, hydrogen peroxide, sulphuric and nitric acids, hypochlorites and permanganates.

Section 08 Exposure Controls and Personal Protection

Exposure limits

There are no known exposure limits for this product.

Engineering controls	
Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	No specific recommendations beyond the required hygiene facilities at the place of work.
Protective equipment	
The following are recommendate process in which this product b regulatory and safety information	tions only. It is the responsibility of the employer / user to conduct a hazard assessment of the eing used and determine the proper engineering controls and PPE for their process. Additional on should be sought from local authorities and, if needed, a professional industrial hygienist.

Eye and face protection	Where there is potential eye or face exposure, safety glasses are recommended. Contact lenses are not recommended; they may contribute to severe eye injury.
Hand and body protection	Where handling this product it is recommended that skin contact is avoided.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.
Thermal hazards	Not available

Section 09 Physical and Chemical Properties

Appearance

Physical state	Liquid
Colour	White
Odour	Aliphatic
Odour threshold	Not applicable
Property	
рН	Not availabe
Melting point / freezing point	<5 °C
Initial boiling point and boiling range	>100 °C

Safety Data Sheet

Flash point	Not available
Evaporation rate	Not available
Flammability	Not applicable
Upper flammable limit	Not available
Lower flammable limit	Not available
Vapour pressure	2.3 kPa @ 20 °C
Vapour density	0.804 g/L @ 20 °C
Relative density	Not applicable
Solubility	Soluble in water
Partition coefficient: n- octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	>150 °C
Viscosity	Not available
Specific gravity	Not available
Particle characteristics	Not applicable
Formula	Not available
Molecular weight	Not available

Section 10 Stability and Reactivity

Reactivity	Not available
Stability	This product is stable if stored according to the recommendations in Section 07.
Possibility of hazardous reactions	Hazardous polymerization is not known to occur.
Conditions to avoid	Avoid contact with incompatible materials. Do not heat.
Incompatible materials	Oxidizing agents, such as oxygen, hydrogen peroxide, sulphuric and nitric acids, hypochlorites and permanganates.
Hazardous decomposition products	Thermal decomposition may produce oxides of carbon and nitrogen, and hydrogen chloride .

Section 11 Toxicological Information

Acute Toxicity (LD50 / LC50 values)

Component	Route	Species	Value	Exposure time
Acute toxicity estimate	Oral	Rat	>5,000 mg/kg bw	
	Dermal	Rat	>5,000 mg/kg bw	

Toxic Health Effect Summary

Chemical characteristics	No known effects
Skin	May cause transient irritation or dryness.
Ingestion	May cause discomfort or nausea.
Inhalation	May cause respiratory irritation.

Safety Data Sheet

Eye contact	Testing conducted according to the Draize technique showed the material produces no corneal or iridial effects and only slight transitory conjuctival affects similar to those with all granular materials have on conjuctivae.
Sensitization	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity	This product and its components at their listed concentration have no known mutagenic effects.
Carcinogenicity	This product and its components at their listed concentration have no known carcinogenic effects.
Reproductive toxicity	This product and its components at their listed concentration have no known reproductive effects.
Specific organ toxicity	This product and its components at their listed concentration have no known effects on specific organs.
Aspiration hazard	Not available
Synergistic materials	Not available

Section 12 Ecological Information

Ecotoxicity

Component	Туре	Species	Value	Exposure Time
Acute toxicity estimate	LC50	Fish	10-100 mg/L	96 hours
	EC50	Daphnia magna	10-100 mg/L	48 hours
Biodegradability	The domestic substance list categorizes all of the components of this product as non- persistent.			
Bioaccumulation	The domestic substance list categorizes all of the components of this product as non- bioaccumulative.			
Mobility	This product is water soluble, but is expected to adsorb to soil and is not expected to contaminate ground water.			
Other adverse effects	Not available			

Section 13 Disposal Considerations

Waste From Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

Section 14 Transport Information

UN number	Not available
UN proper shipping name and description	Not available
Transport hazard class(es)	Not available
Packing group	Not available
Excepted quantities	Not available
Environmental hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special precautions	No special provisions
Transport in bulk	ERAP index: not available

MARPOL 73/78 and IBC Code: This product is not listed in Chapter 17 of the IBC Code.

Additional information

Secure containers (full or empty) during shipment and ensure all caps, valves, or closures are secured in the closed position.

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

Section 15 Regulatory Information.

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

All components of this product appear on the domestic substance list.

Section 16 Other Information

Date of latest revision: October 27, 2021

Note: The responsibility to provide a safe workplace remains with the buyer / user. The buyer / 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 buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the RDC Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached 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 center.

References:

CHEMINFO
 TOXNET
 eChemPortal
 ECHA
 Transportation of Dangerous Goods Canada
 HSDB
 PAN

APPENDIX D – SUPPLY AGREEMENT

RDN SUPPLY CONTRACT

REGIONAL DISTRICT OF NANAIMO

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BETWEEN: **(**the "Supply Contractor")

AND: Regional District of Nanaimo (the "RDN") 6300 Hammond Bay Road, Nanaimo, BC, Canada V9T 6N2

THIS AGREEMENT WITNESSES that the Supply Contractor and the RDN agree as follows:

- The Supply Contractor shall provide all labour, equipment, and materials required to supply and deliver the Product ("") to French Creek Pollution Control Centre located at 957 Lee Road, Parksville, BC within the required time and delivery location, as identified the Contract Documents.
- 2. Shipping Terms: Freight on Board (FOB) destination, freight prepaid and allowed.
- 3. The RDN shall pay the Supply Contractor the Contract Price, as required by the Contract Documents.
- 4. The Contract Price shall be the sum in Canadian Dollars of the following:

(a) Rate<mark>, \$/kg</mark> and

The Contract Price shall be the entire compensation owing to the Supply Contractor by the RDN for the Product and shall cover and include necessary costs including but not limited to all supervision, labour, materials, Supply Contractor's Plant and Equipment, overhead, profit, financing costs, duty, shipping charges, fabrication and finishing, conveyance and delivery, packing, crating, freight, cartage, off-loading, drafting charges, tariffs, warranty and all other costs and expenses whatsoever incurred in performing the Contract.

Except for the amounts which the RDN in good faith is disputing and except for any set off which the RDN may claim and except for invoices (or portions of invoices) in respect of which the RDN has requested and not received supporting evidence, the RDN shall pay invoices submitted to it for the Services within 30 days' receipt thereof.

5. The term of a Contract shall commence on , and expires unless terminated, cancelled, or extended.

RDN SUPPLY CONTRACT

REGIONAL DISTRICT OF NANAIMO

The contract will be for a four (4) year term. Fixed pricing is required over the first one-year of the term. Annual fixed pricing for each subsequent year will be based upon mutual agreement and successful price negotiations between both parties confirmed in writing. The contract will be amended annually to reflect that year's agreed to pricing.

- 6. The Supply Contractor shall supply and deliver the Product to the Delivery Point no later than 14 working days from receipt of order. Deliveries will be made between the hours of 8:30 am to 4:00 pm. Should there be any delay in obtaining Product, the RDN reserves to secure alternative product from any source without waving or voiding the terms and conditions.
- 7. The Contract Documents shall form a part of this Agreement as though recited in full.
- 8. The Contract supersedes all prior negotiations, representations, or agreements, whether written or oral and is the entire agreement between the RDN and the Supply Contractor with respect to the subject matter of this Agreement.
- 9. The Supply Contractor shall not assign the Contract, or any portion of the Contract, or any payments due or to become due under the Contract, without the express written consent of the RDN.
- 10. No action or failure to act by the RDN or an authorized representative of the RDN shall constitute a waiver of any right or duty afforded any of them under the Contract or constitute an approval or acquiescence in any breach thereunder, except as may be specifically agreed in writing.
- 11. This Agreement shall enure to the benefit of and be binding upon the RDN and the Supply Contractor and their respective heirs, executors, legal representatives, successors and permitted assigns. In the event of more than one person being the Supply Contractor, the grants, covenants, provisos and claims, rights, powers, privileges, and liabilities shall be construed and held to be several as well as joint.
- 12. Time shall be of the essence of this Agreement.
- 13. This Agreement may be executed in any number of counterparts, each of which will be deemed to be an original and all of which taken together will be deemed to constitute one and the same instrument. Delivery by electronic transmission in portable document format (PDF) of an executed counterpart of this Agreement is as effective as delivery of an originally executed counterpart of this Agreement.
- 14. The Supply Contractor will comply with all applicable federal, provincial, and municipal and local government laws, bylaws, regulations, codes, and standards.

RDN SUPPLY CONTRACT

REGIONAL DISTRICT OF NANAIMO

- 15. The Supply Contractor will comply with all Workplace Hazardous Materials Information Systems (WHMIS) in terms of chemical handling and comply with Transport of Dangerous Goods Requirements (TDG) where applicable when transporting and delivering Product to the RDN's facilities.
- 16. The Supply Contractor is responsible for cleaning up any spills in transport and when offloading Product at the RDN's facilities. The Supply Contractor must meet all requirements of the *BC Spill Reporting Regulation* in the event of a spill.
- 17. The Supply Contractor will meet the requirements in Section 3.0 Technical Specifications and Requirements in Request for Proposals No. 23-053 Supply and Delivery of Wastewater Treatment Chemicals for French Creek Pollution Control Centre issued by the RDN in October 2023.
- (i) If during the Contract term, the Product is found to be losing its' effectiveness and/or product dosage increases to a level that is unacceptable to the RDN, the Supply Contractor will make every effort to improve such performance within 14 days of notification.
 - (ii) Any Product substitution suggested by the incumbent supplier will perform equal to and/or better than the initial full-scale evaluation or baseline performance.
 Additionally, any product substitution will be formally pre-approved by the RDN and supplied at the unit price in effect at the time of contract issuance.
 - (iii) If the substitute cannot be supplied at the same cost or a more effective Product cannot be found, the RDN have the right to contact other vendors to supply effective Product.
- 17. The Supply Contractor shall arrange commercial general liability coverage in an amount not less than one million dollars (\$1,000,000) per occurrence for bodily injury, death, or property damage, including coverage for loss of use. Such policy shall include the Regional District as an additional insured.
- 18. This agreement may be cancelled by either party for any reason without cause or penalty upon sixty (60) calendar day's written notice. The agreement may be cancelled by the RDN with thirty (30) calendar days' notice if written agreement between both parties on the following year's fixed pricing is not obtained.

If this option is exercised, the RDN will be under no further obligation to the Supply Contractor, except to pay the Supply Contractor such amount as the Supply Contractor

RDN SUPPLY CONTRACT	FORM OF AGREEMENT
REGIONAL DISTRICT OF NANAIMO	Page 4 of 4
may be entitled to receive for services notice is given to the Supply Contractor.	properly performed and provided to the date
IN WITNESS WHEREOF the parties hereto have	executed this Agreement as follows:
REGIONAL DISTRICT OF NANAIMO by its authorized signatory on day o Agreement):	f,, the date of
SIGNED on behalf of the Regional District of Na	naimo by:
Signature:	
Name:	
Title:	
Signature:	
Name:	
Title:	
Supply Contractor	
by its authorized signatory on day of	,,
SIGNED on behalf of the Supply Contractor by:	
Signature:	
Name:	
Title:	