Memorandum



Buckman Direct Diversion Water Treatment Plant –Chemicals RFB '21/39/B Close Date 6/10/2021 Questions and Answers

Regarding Item 4: Zinc Orthophosphate:

Q. What is the current Zn to PO4 ratio being used by Santa Fe?

A. Zn 2.5% to 4.0% and PO4 34%-36%

Q. How many pounds are delivered per shipment?

A. 45,000 LBS

Q. What was Santa Fe's annual usage last year?

A. BDD uses about 20,000/year

Q. Who is the current supplier and what is the current price?

A. Sterling Water Technologies, LLC / 52 cents/lb delivered.

Q Who is the City's current liquid oxygen supplier?

A. Airgas

Q. what is the City's current liquid oxygen price?

A. .013 per CF

Q. What was the City's actual consumption of liquid oxygen in 2020?

A. Approximately 42,000 gallons

Q. According to our records, the City still had extensions left on the previous contract. Can the City share why the contract was not extended?

A. When the RFP for all chemicals was originally issued, Liquid Oxygen received no bids, the contract was not extended for scheduling purposes.

Q. Is the current liquid oxygen tank customer owned?

A. Yes

Q. Is the current liquid oxygen tank still a 6,000 gallon tank?

A. Yes





City of Santa Fe

Invitation to Bid

BDD Water Treatment Chemicals

Agreement

ITB # 21/39/B

NIGP Commodity Code: 885

Bid Due Date and Time: June 10, 2021 2:00pm, MST

Bidder MUST complete as applicable and sign the following in order for the Invitation to Bi	d (Bid) to be valid
(type or print clearly):	
Company Name: Polydyne Inc. Address: One Chemical Plant Rd., Ri	ceboro, GA 31323
DBA (if applicable):	
Co. Email: bids@polydyneinc.com	
Co. Phone No.: (912) 880-2035 NM Gross Receipts Tax # (CRS) N/A, since Polydyne Inc. Federal Tax ID # 34-1810283 transcations are nontaxable. (N.M. Stat. Ann. \$7-9-54, N.M. Admin.	. Code tit. 3, §3.2.212.19)
Payment terms: Net 30 Days (e.g., Net 30. Discount will not be considered in computing the lovand Conditions"	w bid, see "Terms
F.O.B. Point must be Destination, unless otherwise indicated in the Invitation to Bid.	
Contractor's Delivery: 7 calendar days A.R.O. (May be considered in the award)	
Authorized Signature: Print or type name: Boyd Stanl Signatory Email: bids@polydyneinc.com Phone No: (912) 880-2035	ley, Sr. Vice-President
* It is your responsibility as a bidder to ensure your bid is correct and accurate.	
If you have any questions regarding this ITB please contact:	
Procurement Specialist: Jessica Chavez Telephone: 505-629-8351 Email: jjchavez@santafo	enm.gov
No amendment will be issued later than three (3) days prior to the date for receipt of bids, excamendment withdrawing the bids or one which includes postponement of the date for receipt	ept an of bids.
Amendment No Dated: Amendment No Dated: If applicable, Bidder acknowledges receipt of the following amendment(s):	No Amendments posted to the City of Santa Fe website.
Bids are subject to the "Terms and Conditions" shown on the attached pages of this document,	and any additional

bidding instructions or requirements. NOTE: if you decide not to bid, do not return this document.

Terms and Conditions (Unless otherwise specified)

- 1. **General:** When the City of Santa Fe's Chief Procurement Officer (CPO) or his/her designee approves a purchase document in response to the bid, a binding contract is created.
- 2. Variation in Quantity: No variation in the quantity of any item called for by this order will be accepted unless such variation has been caused by conditions of loading, shipping, packing or allowances in manufacturing process and then only to the extent, if any, specified in this order.

3. Assignment:

- a. Neither the order, nor any interest therein, nor any claim thereunder, shall be assigned or transferred by Contractor, except as set forth in Subparagraph 3b or as expressly authorized in writing by the CPO or his/her designee. No such assignment or transfer shall relieve Contractor from the obligations and liabilities under this order.
- b. Contractor agrees that any and all claims for overcharge resulting from antitrust violations which are borne by the City of Santa Fe (City) as to goods, services, and materials purchased in connection with this bid are hereby assigned to the City.
- 4. **County Furnished Property:** City furnished property shall be returned to the City upon request in the same condition as received except for ordinary wear, tear and modifications ordered hereunder.
 - 5. Discounts: Prompt payment discounts will not be considered in computing the low bid.
- 6. **Inspection:** Final inspection and acceptance will be made at the destination. Supplies rejected at the destination for nonconformance with specifications shall be removed at Contractor's risk and expense, promptly after notice of rejection.
- 7. **Inspection of Plant:** The CPO or his/her designee may inspect, at any reasonable time, the part of the Contractor's, or any subcontractor's plant or place of business, which is related to the performance of this contract.
- 8. Commercial Warranty: Contractor agrees that the supplies or services furnished under this order shall be covered by the most favorable commercial warranties Contractor gives for such to any customer for such supplies or services. The rights and remedies provided herein shall extend to the City and are in addition to and do not limit any rights afforded to the City by any other clause of this order. Contractor agrees not to disclaim warranties of fitness for a particular purpose of merchantability.
- 9. **Taxes:** Price shall not include state gross receipts tax or local option tax. Such tax or taxes shall be added at time of invoicing at current rate and shown as a separate item to be paid by the Requesting Department.

10. Packing, Shipping, and Invoicing:

- a. The City's purchasing document number and Contractor's name, Requesting Department's name and location shall be shown on each packing and delivery ticket, package, bill of lading and other correspondence in connection with the shipments. The Requesting Departments' count will be accepted by the Contractor as final and conclusive on all shipments not accompanied by a packing ticket.
- b. Contractor's invoice shall be submitted duly certified and shall contain the following information: order number, description of supplies or services, quantities, unit price and extended totals. Separate invoices shall be

rendered for each and every complete shipment.

- c. Invoices must be submitted to the Requesting Department and NOT to the City Procurement Officer.
- 11. **Default:** The City reserves the right to cancel all or any part of this order without cost to the City, if Contractor fails to meet the provisions of this order and, except as otherwise provided herein, to hold Contractor liable for any excess cost occasioned by the City due to Contractor's default. Contractor shall not be liable for any excess costs if failure to perform the order arises out of causes beyond the control and without the fault or negligence of Contractor, such causes include but are not restricted to, acts of God or the public enemy, acts of the State or Federal Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather and defaults of subcontractors due to any of the above, unless the City shall determine that the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit Contractor to meet the required delivery scheduled. The rights of the City provided in this paragraph shall not be exclusive and are in addition to any other rights now being provided by law or under this order.
- 12. **Non-Collusion:** In signing this bid Contractor certifies he/she has not, either directly or indirectly, entered into action in restraint of free competitive bidding in connection with this offer submitted to the CPO or his/her designee.
- 13. **Nondiscrimination:** Contractor doing business with the City must be in compliance with the Federal Civil Rights Act of 1964 and Title VII of the Act (Rev. 1979) and the Americans with Disabilities Act of 1990 (Public Law 101-336).
- 14. **Penalties:** Sections 13-1-28 through 13-1-199 NMSA 1978, imposes civil and criminal penalties for its violation. In addition, the New Mexico criminal statutes impose felony penalties for bribes, gratuities, and kickbacks.
 - 15. Items: All bid items are to be NEW and of most current production, unless otherwise specified.
- 16. Payment for Purchases: Except as otherwise agreed to: Pursuant to Section 13-1-158 NMSA 1978, within fifteen (15) days after the date the Requesting Department receives written notice from Contractor that the payment is requested for services, construction or items of tangible personal property delivered on site and received, the Requesting Department shall issue a written certification of complete or partial acceptance or rejection of the services, construction or items of tangible personal property. If the Requesting Department finds that the services, construction or items of tangible personal property are not acceptable, it shall, within thirty (30) days after the date of receipt or written notice from Contractor that payment is requested, provide to Contractor, a letter of exception explaining the defect or objection to the services, construction or delivered tangible personal property along with the details of how Contractor may proceed to provide remedial action. Upon certification by the Requesting Department that the services, construction, or delivered tangible personal property have been received and accepted, payment shall be tendered to Contractor within thirty (30) days after the date of certification. If payment is made by mail, the payment shall be deemed tendered on the date it is postmarked. After the thirtieth (30th) day from the date that written certification of acceptance is issued, late payment charges shall be paid on the unpaid balance due on the contract to Contractor at the rate of one and one half percent (1 ½%) per month. For purchases funded by state or federal grants to local public bodies, if the local public body has not received the funds from the federal or state funding agency, but has already certified that the services or items of tangible personal property have been received and accepted, payments shall be tendered to Contractor within five (5) working days of receipt of funds from that funding agency.
- 17. Workers' Compensation: Contractor agrees to comply with state laws and rules pertaining to Workers' Compensation benefits for its employees. If Contractor fails to comply with Workers' Compensation Act and applicable rules when required to do so, this Agreement may be terminated by the City.

- 19. **Contractor Personnel**: Personnel proposed in Contractor's written bid to the Requesting Department are considered material to any work performed under this Agreement. Once a Purchase Order or contract has been executed, no changes of personnel will be made by Contractor without prior written consent of the Requesting Department. Replacement of any Contractor personnel, if approved, shall be with personnel of equal ability, experience, and qualifications. Contractor will be responsible for any expenses incurred in familiarizing the replacement personnel to insure their being productive to the project immediately upon receiving assignments. Approval of replacement personnel shall not be unreasonably withheld. The Requesting Department shall retain the right to request the removal of any of Contractor's personnel at any time.
- 20. **Subcontracting:** Contractor shall not subcontract any portion of the Agreement without the prior written approval of the Requesting Department. No such subcontracting shall relieve the Contractor from its obligations and liabilities under this Agreement, nor shall any subcontracting obligate payment from the Requesting Department.
- 21. **Records and Audit:** Contractor shall maintain detailed time and expenditure records that indicate the date, time, nature, and cost of services rendered during this Agreement's term and effect, and retain them for a period of three (3) years from the date of final payment under this Agreement. The records shall be subject to inspection by the Requesting Department and the City. The Requesting Department shall have the right to audit billings, both before and after payment. Payment for services under this Agreement shall not foreclose the right of the Requesting Department to recover excessive or illegal payments.
- 22. **Requesting Department:** Requesting Department is the Buckman Direct Diversion Board with the City of Santa Fe ("BDDB")

Subcontracts: The foregoing requirements for Contractor Personnel, Subcontracting, and Audit shall be inserted into all subcontracts from the prime contractor to the subcontractor.

Important Bidding Information

Submission of Bid: Due Date – June 10, 2021, at 2:00 P.M. (MST/MDT) at which time the sealed Bids will be recorded as received and opened.

The Bid is to be delivered to:

Submissions of all Invitation to Bids must be accomplished via email to:

All Bids received after the due date and time will be rejected and returned unopened.

Chief Procurement Officer (CPO): If you are an individual with a disability and you require accommodations such as a hearing interpreter to attend our bid openings, please contact the CPO or his/her designee at least five (5) working days prior to the scheduled bid opening.

Any inquiries or requests regarding clarification of this solicitation shall be submitted **electronically** to the CPO or his/her designee in writing.

CPO contact information is: Fran Dunaway, CPO, CNM 200 Lincoln Ave., Room 122 Santa Fe, NM 87505 fadunway@santafenm.gov Bidders may contact ONLY the CPO or his/her designee regarding the terminology stated in the solicitation. Other City employees do not have the authority to respond on behalf of the City.

Bidders shall promptly notify the CPO or his/her designee of any ambiguity, inconsistency, or error which they may discover upon examination of the bid. Any response made by the City will be provided in writing to all contractors by addendum, no verbal responses shall be authoritative.

All Bidders must notify the CPO or his/her designee if any employee(s) of the requesting Department or the office of CPO have a financial interest in the Bidder:

X No financial interest	Yes financial interest	
If yes specify by name:		

The CPO or his/her designee shall have the right to reject any or all bids, and in particular to reject a bid not accompanied by the data required by this bidding document, or a bid which is in any way incomplete or irregular.

Where a brand name or equal is indicated, it is for the purpose of describing the standard of quality, performance, and characteristics desired and is not intended to restrict competition. "No substitute" specifications may be authorized ONLY if required to match existing equipment.

If bidding "equivalent" bidders must be prepared to furnish "complete data" upon request, preferably with bid, to avoid delay in award.

If any Bidder is of the opinion that the specifications as written preclude him from submitting a bid on this ITB, it is requested that his opinion be made known to the CPO or his/her designee, in writing, at least seven (7) days prior to the bid opening date.

Bidders must, upon request of the CPO or his/her designee, provide information and data to prove that the financial resources, production of service facilities, service reputation and experience are adequate to make satisfactory delivery of the materials and/or services. the CPO or his/her designee reserves the right to require a Bidder to furnish a Performance Bond prior to award, where the Bidder is unable to furnish the required information or data, or for other reasons which would insure proper performance by the Bidder.

Unless otherwise indicated in the bid specifications, samples of the items, when required, shall be free of expense to the BDD/City. Samples not destroyed or mutilated in testing will be returned upon request, at Bidders expense. Each sample must be labeled to clearly show the bid number and item number that it pertains to. Unsolicited bid samples or descriptive literature, which is submitted at the Bidder's risk, will not be returned.

Determination of Lowest Bidder – Following determination of product acceptability, if any is required, bids will be evaluated to determine which Bidder offers the lowest cost to the BDD/City in accordance with the specifications and terms & conditions set forth in the Bid. The BDDB/City reserves the right to award this Bid in total; by groups of items; on the basis of individual items; any combination of these which could result in a multiple award; or as otherwise specified in bid specifications; whichever, in his/her judgment, best serves the interest of the BDD/City.

The CPO or his/her designee reserves the right to accept and/or reject any and all bids, to waive technical irregularities, and to award to the Bidder whose bid is deemed to be in the best interest of the BDD/City.

Special Notice – To preclude any possible errors and/or misinterpretations, bid prices must be affixed legibly in ink or typewritten. Corrections or changes must be signed or initialed by Bidder prior to the scheduled bid opening; failure to do so will be just cause for rejection of bid.

Bids may be withdrawn upon receipt of written request, prior to scheduled bid opening for the purpose of making any corrections and/or changes; such corrections must be properly identified and signed or initialed by Bidder. Resubmittal must be prior to scheduled bid opening for consideration.

After bid opening, no modifications on bid prices or other provisions of bid shall be permitted. A low Bidder alleging a material mistake of fact after bids have been opened may be permitted to withdraw the bid upon written request prior to award at the discretion of the CPO or his/her designee.

F.O.B. Destination – Means goods are to be delivered to the destination designated by the Requesting Department which is the point at which the Requesting Department accepts ownership or title of the goods. Laws of New Mexico specifically prohibit acceptance of ownership of goods in transit. Any exception to F.O.B. Destination may cause bid to be declared nonresponsive.

Statement of Work - Under the terms and conditions of this Agreement the BDD/City may issue orders for items and/or services described herein. The terms and conditions of this Agreement shall form a part of each order issued hereunder.

The items and/or services to be ordered shall be as listed in the Price Schedule. All orders issued hereunder will bear both an order number and this Agreement number.

Only written signed orders are valid under this Agreement.

Items and/or services furnished hereunder shall conform to the requirements of specifications and/or drawings applicable to items listed under the Price Schedule. Orders issued against this schedule will show the applicable Agreement item(s), number(s), and price(s); however, they may not describe the item(s) fully.

The prices quoted herein represent the total compensation to be paid by the BDD for the goods and/or services provided including any and all labor, equipment, tools, materials, taxes, permits, licenses, or other costs necessary to complete the services or goods provided.

Shipping and Billing Instructions

Contractor shall ship in accordance with the following instructions: Shipment shall be made only against specific orders which the Requesting Department may place with Contractor during the term; Contractor shall enclose a packing list with each shipment listing the order number, Agreement number and the commercial parts number (if any) for each item; delivery shall be made as indicated by the Requesting Department. If contractor is unable to meet stated delivery the CPO or his/her designee must be notified.

Termination

The Requesting Department may terminate this Agreement for convenience or cause. Contractor may only terminate this Agreement based upon the Requesting Department's uncured, material breach of this Agreement. Contractor shall give the Requesting Department written notice of termination at least thirty (30) days prior to the intended date of termination, which notice shall (i) identify all the Requesting Department's material breaches of this Agreement upon which the termination is based and (ii) state what the Requesting Department must do to cure such material breaches. Contractor's notice of termination shall only be effective (i) if the Requesting Department does not cure all material breaches within the thirty (30) day notice period or (ii) in the case of material breaches that cannot be cured within thirty (30) days, the Requesting Department does not, within the thirty (30) day notice period, notify

Contractor of its intent to cure and begin with due diligence to cure the material breach. Termination of this Agreement, however, shall not affect any outstanding orders. This provision is not exclusive and shall not waive other rights and remedies afforded either party in the event of breach of contract or default. In such instances the Agreement may be cancelled effective immediately.

Amendment

This Agreement may be amended by mutual agreement of the CPO or his/her designee and Contractor upon written notice by either party to the other. An amendment to this Agreement shall not affect any outstanding orders issued prior to the effective date of the amendment as mutually agreed upon, and as published by the CPO or his/her designee. Amendments affecting price adjustments and/or the extension of this Agreement's expiration date are not allowed unless specifically provided in the bid and agreement specifications.

Hold Harmless and Indemnification Clause:

Contractor shall indemnify and hold harmless the BDD/City, its officers and employees against liability, claims, damages, losses, or expenses arising out of bodily injury to persons or damage to properties caused by, or resulting from, Contractor's and/or its employees, own negligent acts or omissions while Contractor, and/or its employees perform or fail to perform its obligations and duties under the terms and conditions of this Agreement. This Hold Harmless and Indemnification Clause is subject to the immunities, provisions, and limitations of the Tort Claims Act (Section 41-4-1, et seq., NMSA 1978 Comp. and Section 56-7-1 NMSA 1978 Comp.) and any amendments thereto.

It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of the Agreement to create the public or any member hereof a third-party beneficiary or to authorize anyone not a party to the Agreement to maintain a suit for wrongful death, bodily and/or personal injury to persons, damage to properties and/or other claims whatsoever pursuant to the provisions of this Agreement.

Quantities:

Quantities are estimated for bidding purposes only. Actual quantities may be significantly less of slightly more, depending on the needs of the BDD/City.

Specifications:

Establish an Agreement for the City on Behalf of the Buckman Direct Diversion Board for the delivery of Water Treatment Chemicals.

Item 1: Ferric Chloride

Liquid Ferric Chloride (FeCl3) is an orange-brown, acidic, corrosive aqueous solution. The specific gravity of the solution shall be in the range of 1.3 to 1.5. The specific gravity will vary with the FeCl3 concentration. Concentration may be varied with the season and point of destination to prevent crystallization during cold weather. Ferric Chloride solution is to be ordered in tanker truck load quantities. Deliveries to be made to BDD Water Treatment Facility plant site in tank trailers.

Delivery off-loading process will be by truck powered air pressure only.

An Affidavit of Compliance, and Certified Analysis to assure quality, with the chemical concentration, shall accompany each shipment. Each shipment shall also be accompanied by a weight certificate from a certified weight scale device. Delivery shall be within one (1) week of ordering. Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

LIQUID FERRIC CHLORIDE QUALITY

Total FeCl3% by weight 28% to 47%

Total iron as Fe 9.6% to 16.2%

Not more than 2.5% of the total iron shall be in the ferrous state.

The free acid, expressed as HCL, shall not exceed 1.0%.

The solution shall not contain more than 0.2% total insoluble matter by weight. BDD may require a sample from each load to check appearance and test specific gravity.

Supplier shall furnish a table showing the percentage of ferric chloride for different specific-gravity readings. BDD will provide sample container if sample is required. If sample is required the driver will be required to obtain a representative sample.

Product must meet ANSI/AWWA Standard Specification B407-05 and certified to NSF/ANSI 60 Drinking Water Treatment Chemicals – Health Effects for use in drinking water. Estimated use per year is 800,000 lbs.

Item 2: Sodium Hydroxide

Liquid Sodium Hydroxide supplied shall contain approximately 50 percent or 25 percent sodium hydroxide (NaOH). The 50% sodium hydroxide solution begins to crystallize at approximately 540 F and the 25% solution begins to crystallize at approximately 80 F. Concentration shall be varied with the season and point of destination, as per the recipient request, to prevent crystallization during cold weather.

Sodium Hydroxide solution is to be ordered in tanker truck load quantities. Deliveries to be made to BDD Water Treatment Facility plant site in tank trailers. Delivery off-loading process will be by truck powered air pressure only.

An Affidavit of Compliance, and Certified Analysis to assure quality, with the chemical concentration, shall accompany each shipment. Each shipment shall also be accompanied by a weight certificate from a certified weight station device.

Delivery shall be within one (1) week of ordering. Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

BDD may require a sample from each load to check appearance and test specific gravity. BDD will provide sample container if sample is required. If sample is required the driver will be required to obtain a representative sample.

LIQUID SODIUM HYDROXIDE QUALITY

Liquid Sodium Hydroxide supplied shall contain approximately 50 percent or 25 percent sodium hydroxide (NaOH) as specified above for seasonal delivery.

Product must meet ANSI/AWWA Standard B501-08 and certified to NSF/ANSI 60 Drinking Water Treatment Chemicals – Health Effects for use in drinking water. Estimated use per year is 600,000 lbs.

Item 3: Polymer Polydyne Inc. Clarifloc A-210P Polymer OR Equal

POLYMER solution is to be ordered in 275 Gallon tote quantities. Deliveries will be made to BDD Water Treatment Facility dock area.

Delivery off-loading process will be by fork truck. **Empty used tote containers will have to be removed by Bidder and disposed of.** Please see attached statement titled "EMPTY TOTE PICK UP".

An Affidavit of Compliance, and Certified Analysis to assure quality, with the chemical concentration, shall accompany each shipment. Each shipment shall also be accompanied by a weight certificate from a certified weight station device.

Delivery shall be within one (1) week of ordering. Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

OTHER POLYMER

Bidders may submit bids based on one or more alternate polymer products provided that the bidder demonstrate the performance of each alternate polymer product(s) at the BDD Water Treatment plant at no additional cost or obligation to the BDD. The full-scale demonstration of the polymer product(s) will be at no cost to the BDD and will use the BDDs polymer feed and dewatering equipment. The performance criterion for this demonstration is as follows:

A. The polymer shall be tested in the dewatering of Ferric Chloride flocculated water treatment plant sludge. The conditions and performance requirements shall be as follows:

- 1. Minimum solids feed rate: 120 gpm at 5.0 percent solids.
- 2. Maximum hydraulic loading rate: 350 gpm at 2.0 percent solids.
- 3. Maximum solids loading rate: 3,300 dry pounds per hour.
- 4. Minimum cake solids: 20 percent.
- 5. Minimum solids capture: 95 percent of the sludge feed total solids.
- 6. Maximum polymer dosage as active polymer: 12 pounds per dry ton of solids.
- 7. Minimum demonstration test run time at steady state: 2 hours continuous.
- B. Percent Solids Capture = $(C/F) \times [(F-E)/(C-E)] \times 100$ Where C = Dewatered sludge total solids in mg/kg F*= Feed TS in mg/kg, excluding any dilution flow from polymer solution flow; E = Centrate total suspended solids (TSS) in mg/kg, excluding any dilution from polymer solution flow.
- 14 * Feed refers to sludge feed excluding active polymer and polymer dilution water flow rates. A polymer may be selected from those demonstrated to be the most cost effective at meeting the above criteria. If selected, the polymer is to be ordered in 275 Gallon tote quantities. Deliveries to be made to BDD Water Treatment Facility plant site. Delivery off-loading process will be by fork truck.

An Affidavit of Compliance, and Certified Analysis to assure quality, with the chemical concentration, shall accompany each shipment. Each shipment shall also be accompanied by a weight certificate from a certified weight station device.

Delivery shall be within one (1) week of ordering. Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

POLYMER QUALITY

BDD may require a sample from each load to check appearance and test specific gravity. BDD will provide sample container if sample is required. If sample is required, the driver will be required to obtain a representative sample.

Product must be certified to NSF/ANSI 60 Drinking Water Treatment Chemicals – Health Effects for use in drinking water. Estimated use per year is 25,000 lbs.

Item 4: Zinc Orthophosphate (ZOP)

Aqueous ZOP solutions are clear and have a slight acid odor.

ZOP solutions are miscible with water in all proportions.

The specific gravity of the solutions will vary depending on the ratio of Zn to PO4 3- and can range from 1.20 to 1.70 at 720 F Zinc Orthophosphate solution is to be ordered in tanker truck load quantities. Deliveries to be made to BDD Water Treatment Facility plant site in tank trailers. Delivery off-loading process will be by truck powered air pressure only.

An Affidavit of Compliance, and Certified Analysis to assure quality, with the chemical concentration, shall accompany each shipment. Each shipment shall also be accompanied by a weight certificate from a certified weight station device.

Delivery shall be within one (1) week of ordering. Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

ZINC ORTHOPHOSATE QUALITY

BDD may require a sample from each load to check appearance and test specific gravity. BDD will provide sample container if sample is required. If sample is required the driver will be required to obtain a representative sample.

Product must meet ANSI/AWWA Standard Specification B506-06 and certified to NSF/ANSI 60 Drinking Water Treatment Chemicals – Health Effects for use in drinking water. Estimated use per year is 30,000 lbs.

Item 5: Calcium Thiosulfate Captor® Calcium Thiosulfate or Equal

Calcium thiosulfate solution is a non-hazardous liquid with a typical pH of 6.5 - 8.0. The liquid solution is water-white to pale yellow in color and may have a slight odor of fresh concrete. The solution of Captor is considered stable in normal transportation. Solutions range from 20 to 30% strength by weight and weigh 10.0 to 11.0 pounds per U.S. gallon (1.198 to 1.318 gm/cc).

Calcium Thiosulfate solution is to be ordered in tanker truck load quantities. Deliveries to be made to BDD Water Treatment Facility plant site in tank trailers. Delivery off-loading process will be by truck powered air pressure only.

An Affidavit of Compliance, and Certified Analysis to assure quality, with the chemical concentration, shall accompany each shipment. Each shipment shall also be accompanied by a weight certificate from a certified weight station device.

Delivery shall be within one (1) week of ordering. Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

CAPTOR Calcium Thiosulfate QUALITY

BDD may require a sample from each load to check appearance and test specific gravity.

BDD will provide sample container if sample is required. If sample is required the driver will be required to obtain a representative sample.

Product must be certified to NSF/ANSI 60 Drinking Water Treatment Chemicals – Health Effects for use in drinking water. Estimated use per year is 20,000 lbs.

Item 6: Sulfuric Acid

Sulfuric Acid H2SO4 - Sulfuric Acid solution is to be ordered in 250 gallon tote quantities. Deliveries will be made to BDD Water Treatment Facility dock area. Delivery off-loading process will be by fork truck only. **Empty used tote containers will have to be removed by Bidder and disposed of.**

An Affidavit of Compliance, and Certified Analysis to assure quality, with the chemical concentration, shall accompany each shipment. Each shipment shall also be accompanied by a weight certificate from a certified weight station device. Delivery shall be within one (1) week of ordering.

Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

SULFURIC ACID QUALITY

Total H2SO4% by weight 93%

BDD may require a sample from each load to check appearance and test specific gravity.

BDD will provide sample container if sample is required. If sample is required the driver will be required to obtain a representative sample. Product must be certified to NSF/ANSI 60 Drinking Water Treatment Chemicals – Health Effects for use in drinking water. Estimated use per year is 15,000 lbs.

Item 7: Liquid Oxygen (LOX)

Liquid Oxygen (LOX) is a colorless, odorless, tasteless, diatomic gas. Oxygen has a density of 1.326 g/L at 700 F and 760 mm of mercury.

Liquid Oxygen is to be ordered in bulk truck load quantities. Deliveries to be made to BDD Water Treatment Facility plant site in tank trailers.

An Affidavit of Compliance, and Certified Analysis to assure quality, with the oxygen concentration, the water and hydrocarbon contents, shall accompany each shipment. Each shipment shall also be accompanied by a weight certificate from a certified weight station device, or a liquid meter ticket. Delivery shall be within one (1) week of ordering. Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

LIQUID OXYGEN QUALITY

LOX shall have an oxygen content of at least 99.0 percent, by weight. The water content of the LOX shall not exceed a dew point o -800F at the time of delivery.

The total hydrocarbon content (as methane) of the LOX shall not exceed 40 ppm (v/v) at the time of delivery. Other impurities include nitrogen, argon, and other inert gases. The sum of these impurities shall not be sufficient to prevent achieving the minimum oxygen content specified above.

Product must meet ANSI/AWWA Standard Specification B304-08 and certified to NSF/ANSI 60 Drinking Water Treatment Chemicals – Health Effects for use in drinking water. Estimated use per year is 10,000,000 cu.ft.

Item 8: Hydrofluorosilicic Acid

Hydrofluorosilicic Acid supplied shall be clean and free of visible suspended matter and shall be white to straw yellow in color.

Hydrofluorosilicic Acid solution is to be ordered in tanker truck load quantities. Deliveries to be made to BDD Water Treatment Facility plant site in tank trailers. Delivery off-loading process will be by truck powered air pressure only.

An Affidavit of Compliance, and Certified Analysis to assure quality, with the chemical concentration, shall accompany each shipment. Each shipment shall also be accompanied by a Delivery shall be within one (1) week of ordering. Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

HYDROFLUOROSILICIC ACID QUALITY

Total Hydrofluorosilicic acid % by weight 20% to 30% Maximum free acid, expressed as HF, shall not exceed 1.0%.

BDD may require a sample from each load to check appearance. BDD will provide sample container if sample is required. If sample is required the driver will be required to obtain a representative sample. Product must meet ANSI/AWWA Standard Specification B703a-08 Addendum to B703-06 and certified to NSF/ANSI 60 Drinking Water Treatment Chemicals – Health Effects for use in drinking water. Estimated use per year is 16,000 lbs.

Item 9: Sodium Hypochlorite

Sodium Hypochlorite is a clear, pale yellow or greenish liquid with a chlorine odor. Sodium Hypochlorite solution is to be ordered in tanker truck load quantities. Deliveries to be made to BDD Water Treatment Facility plant site in tank trailers. Delivery off-loading process will be by truck powered air pressure only.

An Affidavit of Compliance, and Certified Analysis to assure quality, with the chemical concentration, shall accompany each shipment. Each shipment shall also be accompanied by a weight certificate from a certified weight station device. All invoices shall be priced in gallons.

Delivery shall be within one (1) week of ordering. Delivery will be Monday through Friday between the hours of 8:00 A.M. and 2:00 P.M. only. Offloading of chemicals will be in the presence of Staff only. Supplier is responsible for all spill prevention during unloading and all cleanup and disposal for any unloading spills.

SODIUM HYPOCHLORITE OUALITY

Total sodium hypochlorite% 10% to 12.5%

The solution shall not contain more than 0.15% insoluble matter by weight.

BDD may require a sample from each load to check appearance. BDD will provide sample container if sample is required. If sample is required the driver will be required to obtain a representative sample. Product must meet ANSI/AWWA Standard Specification B300-04 and certified to NSF/ANSI 60 Drinking Water Treatment Chemicals – Health Effects for use in drinking water. Estimated use per year is 60000 gal.

Method of Award:

This Agreement is established as a source and convenience of the City on behalf of BDDB. Multiple awards will be made in the best interest of the BDDB.

Term:

The term of this agreement shall be for four (4) years from date of award. This agreement shall not exceed four (4) years. The chemicals covered by this bid request include one or more of the following water treatment chemicals:

- Ferric Chloride
- Sodium Hydroxide
- Zinc Orthophospate
- Sulfuric Acid
- Liquid Oxygen
- Sodium Hypohlorite
- Hydrofluorosilicic Acid
- Calcium Thiosulfate
- Polymer

General Conditions:

The Requesting Department reserves the right to purchase materials from any of the awarded Contractor's based on the needs of the Requesting Department. The Requesting Department will determine and use the Agreement item which best serves the Requesting Department's needs, based on cost, delivery time, schedule of work and quality of materials. All decisions by the Requesting Department will be final.

Escalation/Reduction Clause:

In the event of a product cost increase/decrease, an escalation/reduction request will be reviewed by the Requesting Department and the CPO or his/her designee on an individual basis. This measure is not intended to allow any increase in profit margin, only to compensate for an actual cost increase.

Effective dates for increase/decrease will not be any sooner than fifteen (15) days from the request is received by the Requesting Department and the CPO or his/her designee. To facilitate prompt consideration, all requests for price increases must include all information below:

- 1. Contract Item Number
- 2. Current Item Price
- 3. Proposed New Price
- 4. Mill/Supplier Notification of price increase/decrease indicating percentage of increase/decrease including reason for increase/decrease.

This escalation policy will be terminated as soon as the market stabilizes.

Contractors Note:

The conditions and specifications set out in the Bid are inseparable and indivisible. Any contractor, by submitting a Bid, agrees to be bound by all such conditions or specifications. All conditions and specifications in the Bid and all other documents required to be submitted, shall be returned by the contractor in his/her Bid package. Failure to do so or any attempt to vary or change the conditions or specifications of the Bid shall, at the discretion of the City, constitute grounds for rejection of the entire Bid. The City will not accept any added stipulation by the vendor.

Contractor(s) shall be considered an independent contractor and not an employee of the City. However, directions as to time and place of performance and compliance with the rules and regulations may be required by the Requesting Department.

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Price Schedule:

Bids shall include all costs of delivery to:

Buckman Direct Diversion Board 341 Caja Del Rio Santa Fe, NM 87506

ltem#	Description	Price Per LB	Price	Estimated QTY	Cost
Item 1	Ferric Chloride	Price per LB	No Bid	800,000 LBS	No Bid
Item 2	Sodium	Price per LB		250,000 LBS	
	Hydroxide	25%	No Bid		No Bid
Item 3	Polymer	Price per LB	\$1.120/Lb.	25,000 LBS	\$28,000.00
Item 4	Zinc	Price per LBS		30,000 LBS	
	Orthoposphate		No Bid		No Bid
Item 5	Calcium	Price per LB		20,000 LBS	
	Thiosulfate		No Bid		No Bid
Item 6	Sulfuric Acid	Price per LB	No Bid	15,000	No Bid
Item 7	Liquid Oxygen	Price per	-	10,000,000 CU.	
		CU.FT	No Bid	FT	No Bid
Item 8	Hydrofluorosilicic	Price per LB		25,000 LBS	
	Acid		No Bid		No Bid
Item 9	Sodium	Price per	NI. D. I	50,000 Gallons	
	Hypochlorite	Gallon	No Bid		No Bid

Clarifloc A-210P

BIDDER'S:

Polydyne Inc.

Firm

One Chemical Plant Rd., Riceboro, GA 31323

Address Ray Land		
Authorized Signature		
Boyd Stanley		
Print Name		
Sr. Vice-President		
Position		
(912) 880-2035	(912) 880-2078	
Phone Number	Fax Number	
06/02/21		
DATE		
N M RESIDENT PREFERENCE NUMBER (6	of applicable). N/A	

TWO COMPLETE COPIES OF THE BID SUBMITTAL IS REQUIRED



EMPTY TOTE PICK UP

Polydyne Inc. is unable to pick up empty totes at the time that delivery of full totes is made. Polydyne Inc. sources its totes from Schutz Industrial Packaging and pays a fee to have the totes picked up by Schutz. A label is affixed to each tote with a phone number to call to have the totes picked up. Schutz, removes the bladder from the cage and prepares the totes for reuse. Schutz does require that the totes be empty and well rinsed. Schutz also requires a minimum of 8 empty totes for pick up or an additional fee may be assessed.

Schutz as one of the largest suppliers of tote bins only uses the pick up model outlined above. This process is followed by all of Polydyne Inc.'s tote customers, including the City of Santa Fe. An Empty IBC Return Form is attached for your review.

If you have any questions concerning this policy, please contact me at (912) 880-2035.

Best Regards,

Boyd Stanley

Sr. Vice-President

SCHÜTZ Ticket Service

Empty IBC Return Form



For Assistance, please call 1-888-SCHUETZ (724-8389)

Fax form to 1-908-595-9625 or Email to: Ticket.USA@Schuetz.net

MINIMUM OF EIGHT (8) IBCs REQUIRED FOR FREE PICKUP

С	Address: City: ontact Name: Fax: ipping Hours:		Phone + Ext:		_
THIS IS NOT A BILL OF LADING	2. All IBCs offe 3. When loadin 4. All original s 5. All IBCs mu • IBCs of • An allo 6. All IBCs mu on the insic 7. As the shipp 8. Any excess SHIPPER/O driver assi Plea fees a	IDITIONS: Intes) must have cages constructed of Tuered for transportation must have valvesing, all IBCs should be double-stacked, is shipping labels must be in place. Triple is to be EMPTY - IBCs should be properly fered for pickup must contain LESS wance of 5 gallons per IBC will be made to the interest of the IBC. Metal cages and per, you must provide UN Placards to cape, you must provide UN Placards to cape and the interest of the IBC. Metal cages and per, you must provide UN Placards to cape and the interest of the IBC. Metal cages and per, you must provide UN Placards to cape and the interest of the IBC. Metal cages and per, you must provide UN Placards to cape a cost incurred in the form of accesses are second incurred in the form of accesses are second to the interest of the IBC. Metal cages and second incurred in the form of accesses are second incurred in the form of accesses are second in the form of accesses. The incurred in the form of accesses are second in the form of accesses and the interest of the IBC. Metal cages and the interest of the IBC. Metal cages are second in the form of accesses are second in the form of accesses. The interest of the IBC in the IBC	arrier when shipping IBCs which contained or land charges from the carrier shall be not limited to detention, truck ordered/not limited to detention truck ordered/not limited to	IS WILL NOT BE ACCEPTED. Indicated as per 49 CFR §173.29. Itrailer to optimize use of space. Itrailer to optimize use of	THIS IS NOT A BILL OF LADING
		Telephone Number of preparer:	norizing pick up and any charges to be in	(If different than listed Contact)	

EMAIL COMPLETED FORM TO: Ticket.USA@Schuetz.net

OR FAX TO: 1-908-595-9625 OR 1-908-595-9618



WARRANTY STATEMENT

Polydyne Inc. warrants all goods and services offered under this bid to be readily available from the date of award through all mutually agreed upon option periods and further guarantees replacement of defective materials during said periods in conjunction with the statements of the Product Data Sheet and Safety Data Sheets. If at any time there are questions about Polydyne Inc. products or if technical assistance is required please contact the Polydyne representatives below:

Brent SoRelle, Technical Sales Representative

Tel: (682) 216-5062

E-mail: <u>bsorelle@polydyneinc.com</u>

Rick Johnson, Regional Sales Manager

Tel: (281) 630-459

E-mail: rjohnson@polydyneinc.com

Customer Service:

Monday – Friday – 8:00 a.m. – 5:00 p.m.

Jonathon Jones, Customer Service Representative

Toll Free: (800) 848-7659

E-mail: <u>JonathanJ@snfhc.com</u>

Bids and Contracts Department Randal Vickery, Bid Coordinator

> Tel.: (912) 880-2035 Fax: (912) 880-2078

E-mail: polybiddpt@snfhc.com



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday**, **June 02**, **2021** at 12:15 a.m. Eastern Time. Please <u>contact NSF</u> to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information: http://info.nsf.org/Certified/PwsChemicals/Listings.asp?
Company=37260&Standard=060&

NSF/ANSI/CAN 60 Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated

P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website (http://www.polydyneinc.com)

Facility: Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	Product Function	Max Use
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L

Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	Product Function	Max Use
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility: Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade DesignationProduct FunctionMax UseFlosperse 30 SWell Cleaning AidNAWell Drilling Aid

- [1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.
- [2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:
 - The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
 - The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
 - The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
 - The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).

- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Trade Designation	Product Function	Max Use
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Polyacrylamide[PC]

Trade Designation	Product Function	Max Use
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L

Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L
Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3 mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	Product Function	Max Use
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT [™] FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade DesignationProduct FunctionMax UseFlosperse 30Distillation Antiscalant20mg/LReverse Osmosis Antiscalant

- [1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.
- [2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:
 - The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
 - The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
 - The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
 - The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
 - This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Facility: Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	Product Function	Max Use
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	<i>7</i> 2mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L

Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility: Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	Product Function	Max Use
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility: Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

* * * * * * * * * * * * * * * * * * * *		
Trade Designation	Product Function	Max Use
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L

Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Polyamines[PY]

Trade Designation	Product Function	Max Use
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Number of matching Manufacturers is 1 Number of matching Products is 187 Processing time was 0 seconds



POLYDYNE

CLARIFLOC A-210P POLYMER

PRINCIPAL USES

CLARIFLOC A-210P is a medium charge polyacrylamide in emulsion form that is used as a flocculant in a wide variety of municipal wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-210P is NSF certified for clarification of potable water at dosages up to 3.0 mg/L.

TYPICAL PROPERTIES

Physical Form

Clear to Milky White Liquid

Density

8.7-8.9 Lbs/Gal

Anionicity

30 %

Active Polyacrylamide Min. 29% Viscosity (0.5% Sol'n) 600-

600-1200 cPs

Freezing Point

7 F. (-14 C.)

PREPARATION AND FEEDING

CLARIFLOC A-210P is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids Residual AcAm Neat Viscosity

UL Viscosity

34 - 41 % < 500 ppm

500 - 2000 cPs 7.5 - 9.3 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is 6 months in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-210P, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal containers. Do not spray water onto a spill because the resulting gel is very difficult to clean up.

SAFETY INFORMATION

CLARIFLOC A-210P is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-210P Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from anywhere in the continental United States, call toll free:

(800) 848-7659

For additional information, please refer to the Safety Data Sheet (SDS)

All statements, information and data given herein are believed to be accurate, but are presented without warranty, expressed or implied. Statements concerning possible use are made without representation or warranty that any such use is free of patent infringement, and is not a recommendation to infringe on any patent. The user should not assume that all safety measures are indicated or that other measures may not be required. Any determination of the suitability of a particular product for any use contemplated by the user is the sole responsibility of the user.

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SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name:

CLARIFLOC™ A-210P

Type of product:

Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses:

Processing aid for industrial applications.

Uses advised against:

None.

1.3. Details of the supplier of the safety data sheet

Company:

Polydyne Inc.

1 Chemical Plant Road

PO BOX 279, Riceboro, GA 31323

United States

Telephone:

1-800-848-7659

Telefax:

(912)-884-8770

E-mail address:

-

1.4. Emergency telephone number

24-hour emergency number:

1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.
2.3. Other hazards	
Spills produce extremely slippery surfaces.	
SECTION 3: Composition/information on ingredients	
3.1. Substances Not applicable, this product is a mixture.	
3.2. Mixtures	
Hazardous components	
Distillates (petroleum), hydrotreated light	
Concentration/-range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304
Notes Does not result in classification of the mixture if the kinema	atic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

< 5% Concentration/-range:

69011-36-5 CAS Number:

Acute Tox. 4;H302, Eye Dam. 1;H318 Classification according to paragraph (d)

of 29 CFR 1910.1200:

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:

Move to fresh air. No hazards which require special first aid measures.

Skin contact:

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:

Rinse mouth with water. Do NOT induce vomiting, Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:

None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.

Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:

None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:

Carbon oxides (COx). Nitrogen oxides (NOx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:

Wear self-contained breathing apparatus and protective suit.

Other information:

Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions:

Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.

Protective equipment:

Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:

Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:

Do not flush with water. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:

Do not flush with water. Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:

After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light

ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:

Safety glasses with side-shields.

- b) Skin protection:
- i) Hand protection: PVC or other plastic material gloves.
- ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur.
- c) Respiratory protection:

No personal respiratory protective equipment normally required.

d) Additional advice:

d) pH:

Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:

b) Odour:

c) Odour Threshold:

Viscous liquid, Milky.

Aliphatic.

No data available.

e) Melting point/freezing point: < 5°C

f) Initial boiling point and boiling range: > 100°C

g) Flash point: Does not flash.

h) Evaporation rate: No data available.

i) Flammability (solid, gas): Not applicable.

i) Upper/lower flammability or explosive limits:

Not expected to create explosive atmospheres.

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Not applicable.

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k) Vapour pressure:

I) Vapour density:

m) Relative density:

n) Solubility(ies):

o) Partition coefficient:

p) Autoignition temperature:

q) Decomposition temperature:

r) Viscosity:

s) Explosive properties:

t) Oxidizing properties:

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

2.3 kPa @ 20°C

0.804 g/L @ 20°C

1.0 - 1.2 (See Technical Bulletin or Product Specifications

for a more precise value, if available)

Completely miscible.

Not applicable.

No data available.

> 150°C

 $> 20.5 \text{ mm}^2/\text{s}$ @ 40° C

Not expected to be explosive based on the chemical structure.

Not expected to be oxidising based on the chemical structure.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:

LD50/oral/rat > 5000 mg/kg (Estimated)

Acute dermal toxicity:

LD50/dermal/rat > 5000 mg/kg. (Estimated)

Acute inhalation toxicity:

The product is not expected to be toxic by inhalation.

Skin corrosion/irritation:

Non-irritating to skin.

Serious eye damage/eye irritation:

Not irritating. (OECD 437)

Respiratory/skin sensitisation:

Not sensitizing.

Mutagenicity:

Not mutagenic.

Carcinogenicity:

Not carcinogenic.

Reproductive toxicity:

Not toxic for reproduction.

STOT - Single exposure:

No known effects.

STOT - Repeated exposure:

No known effect.

Aspiration hazard:

Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:

LD50/oral/rat > 5000 mg/kg (OECD 401)

Acute dermal toxicity:

LD50/dermal/rabbit > 5000 mg/kg (OECD 402)

Acute inhalation toxicity:

LC0/inhalation/4 hours/rat >= 4951 mg/m³ (OECD 403) (Based on results obtained

from tests on analogous products)

Skin corrosion/irritation:

Not irritating. (OECD 404)

Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation:

Not irritating. (OECD 405)

Respiratory/skin sensitisation:

By analogy with similar products, this product is not expected to be sensitizing.

(OECD 406)

Mutagenicity:

Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)

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Carcinogenicity:

Carcinogenicity study in rats (OECD 451): Negative.

Reproductive toxicity:

By analogy with similar substances, this substance is not expected to be toxic for

reproduction.

NOAEL/rat = 300 ppm. (OECD 421)

STOT - Single exposure:

No known effects.

STOT - Repeated exposure:

Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained

from tests on analogous products)

Aspiration hazard:

May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity:

LD50/oral/rat = 500 - 2000 mg/kg

Acute dermal toxicity:

LD50/dermal/rabbit > 2000 mg/kg

Acute inhalation toxicity:

No data available.

Skin corrosion/irritation:

Not irritating. (OECD 404)

Serious eye damage/eye irritation:

Causes serious eye irritation. (OECD 405)

Respiratory/skin sensitisation:

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

Mutagenicity:

In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic

effects.

Carcinogenicity:

Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

Reproductive toxicity:

Based on available data, product is not expected to be toxic for reproduction.

Two-Generation Reproduction Toxicity (OECD 416)

- NOAEL/rat > 250 mg/kg/day

Prenatal Development Toxicity Study (OECD 414)
- NOAEL/Maternal toxicity/rat > 50 mg/kg/day
- NOAEL/Developmental toxicity/rat > 50 mg/kg/day

STOT - Single exposure:

No known effects.

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STOT - Repeated exposure: Based on available data, product is not expected to demonstrate chronic toxic effects.

NOAEL/oral/rat/600 days = 50 mg/kg/day

Aspiration hazard: No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish: LC50/Danio rerio/96 hours > 100 mg/L (Estimated)

LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)

Acute toxicity to invertebrates: EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)

Acute toxicity to algae: IC50/Algae/72 hours > 100 mg/L (Estimated)

Chronic toxicity to fish: No data available.

Chronic toxicity to invertebrates: No data available.

Toxicity to microorganisms: No data available.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish: LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)

Acute toxicity to invertebrates: EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)

Acute toxicity to algae: ICO/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L. (OECD 201)

Chronic toxicity to fish: NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L

Toxicity to microorganisms: EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available. Readily biodegradable, exposure to sediment is unlikely.

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Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish:

LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates:

EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)

Acute toxicity to algae:

IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)

Chronic toxicity to fish:

No data available.

Chronic toxicity to invertebrates:

NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms:

EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms:

No data available.

Sediment toxicity:

No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:

Not readily biodegradable.

Hydrolysis:

Does not hydrolyse.

Photolysis:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation:

Readily biodegradable. 67.6% / 28 days (OECD 301 F); 68.8% / 28 days (OECD

306); 61.2% / 61 days (OECD 304 A)

Hydrolysis:

Does not hydrolyse.

Photolysis:

No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation:

Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis:

Does not hydrolyse.

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Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow):

Not applicable.

Bioconcentration factor (BCF):

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow):

3 - 6

Bioconcentration factor (BCF):

No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow):

> 3

Bioconcentration factor (BCF):

No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc:

No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc:

> 5000

12.5. Other adverse effects

None known.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:

Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:

Not concerned.

Section 304 - Reportable Quantity:

Not concerned.

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Section 313 (De minimis concentration):

Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity: Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity: Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity: Not concerned.

RCRA status:

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health: 0
Flammability: 1
Instability: 0



HMIS:

Health: 0

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Flammability: 1
Physical Hazard: 0
PPE Code: B

This data sheet contains changes from the previous version in section(s):

SECTION 8. Exposure controls/personal protection, SECTION 15. Regulatory information, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms

STOT = Specific target organ toxicity

Abbreviations

Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements

H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways

H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 19.01.c

ENAC001A

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.

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TABULATIONS FOR BID

To: City of Santa Fe State: NM

From: Polydyne Inc. Fax No.: (912) 880-2078

Opened: <u>06/10/20</u>

Subject: ITB # 21/39/B BDD Water Treatment Chemicals

Please provide us with tabulations on the subject bid by filling out this form or attaching your tabulations form to it. A self-addressed stamped envelope is included for your use. If possible, please fax these tabulations to the above-referenced number.

Awarded: YES/NO (circle one)

If YES, indicate awarded vendor with an *. If NO, indicate expected date of award.

Vendor	Product	Unit Price
Polydyne Inc.	Clarifloc A-210P	\$1.120/Lb.

Thank you for your assistance,

Randal Vickery

Bid and Contract Coordinator

PH: (912) 880-2035

Dbase #121-173