

CITY OF SAN DIEGO

PURCHASING & CONTRACTING DEPARTMENT

1200 Third Avenue, Suite 200

San Diego, CA 92101-4195

Fax: (619) 236-5904

ADDENDUM C

Invitation to Bid (ITB) 10089553-19-V

Revised Closing Date: July 8, 2019
@ 3:00 p.m.

Bid for furnishing the City of San Diego with **Cationic Polymer for the Public Utilities Water Filtration Plants.**

The following changes to the specifications are hereby made effective as though they were originally shown and/or written:

1. Remove the Addendum B cover sheet and replace with the attached Addendum C cover sheet. (NOTE: Closing Date changed from July 3, 2019 to July 8, 2019.)
2. Remove the Addendum B, ITB Signature Page (Page 3 of 9) and replace with the attached Addendum C, ITB Signature Page.
3. Add two (2) pages "Additional Questions and Answers". (NOTE: The questions and answers are being provided for informational purposes only, and are not part of any resulting contract from this ITB.)

CITY OF SAN DIEGO PURCHASING & CONTRACTING DEPARTMENT

V. Delgado

Vanessa Delgado

Supervising Procurement Contracting Officer

(619) 236-6248

July 3, 2019

ADDENDUM C
July 3, 2019

**ITB 10089553-19-V, Cationic Polymer for the
Water Filtration Plants
Additional Questions and Answers**

Question 1: Is there a particular reason why the only deadline that has not been changed is the one for question submittal through the PlanetBids Vendor Portal? Section 1.5 of Exhibit A indicates that “Written questions and comments must be submitted electronically via the eBidding System”. “The City’s eBidding System is the only acceptable method for submission of questions.”

Response: No. All questions received were addressed in Addendum form. No follow-up questions to responses were received, therefore there was no need to extend questions.

Question 2: Why was the date to submit samples changed? Was there a problem with notification of the potential bidders? Polydyne Inc. received notification in a timely manner. There is also a large number of prospective bidders listed on PlanetBids for this solicitation.

Response: Sample due date was modified to allow competitive bidding.

Question 3: Why has the bid date been delayed twice on the very day the bid was scheduled to be opened? This fact along with extension of sample submittal deadline in Addendum B provide questionable optics concerning the integrity of this particular bid process.

Response: Bid due date was extended twice to allow the City to properly prepare responses to questions received and to revise the scope appropriately for the product required.

Question 4: What is the extent of fines and other expenses a contractor would be subject to for failure to deliver the product within the 7-business day time frame for standard orders or the 48-hour time frame for emergency order? We ask that this answer be shared with all prospective bidders.

Response: Per the language in the ITB, Exhibit B – Scope of Work, D. Emergency Orders, the City reserves the right to purchase off-contract in order for the plants to remain operable. The City will bill for any difference of emergency purchases and should the City be fined, Contractor is required to reimburse the City.

Question 5: What quantity of polymer must vendors maintain “at storage or warehouse locations within United States within eighteen (18) hours’ drive of deliver points”? We ask that this answer be shared with all prospective bidders.

Response: 50,000 lbs.

Question 6: Is the price adjustment mechanism still limited to the CPI-U for the San Diego Area, for All Urban Consumers or 5.0%, whichever is less, as the bid indicates? We ask that this answer be shared with all prospective bidders.

Response: Yes.

Question 7: Is the City of San Diego concerned about material sourced from overseas?

Response: Any product meeting all requirements of the bid are acceptable.

Question 8: When could a plant survey be conducted at each of the locations to allow selection of the optimal products for each location? This would need to be done prior to sample submission. We are also requesting that the sample submittal date be delayed until after this plant survey.

Response: Prior to bid closing date.

Question 9: The bid states, "Total weight basis of 405,000 pounds of above noted polymer product"? On the prior version of the pricing form it had dry lbs. as the unit of measure, so the total weight basis would be the dry amount + the liquid. If neat pounds are used, then the total weight basis would be the same as the neat pounds. I've pasted the sections below for comparison. Please clarify.

Response: 405,000 lbs is equal to the dry amount plus the liquid. If neat refers to the dry polymer plus liquid that would also suffice.

CITY OF SAN DIEGO

PURCHASING & CONTRACTING DEPARTMENT
1200 Third Avenue, Suite 200
San Diego, CA 92101-4195
Fax: (619) 236-5904

ADDENDUM B

Invitation to Bid (ITB) 10089553-19-V

Revised Closing Date: July 3, 2019
@ 3:00 p.m.

Bid for furnishing the City of San Diego with **Cationic Polymer for the Public Utilities Water Filtration Plants.**

The following changes to the specifications are hereby made effective as though they were originally shown and/or written:

1. Remove the original cover sheet and replace with the attached Addendum B cover sheet. (**NOTE:** Bid Closing Date has been changed from May 29, 2019 to July 3, 2019.)
2. Remove the Addendum A, Signature Page (Page 3 of 9) and replace with the attached Addendum B, Signature Page.
3. Remove the original ITB, Exhibit B – Scope of Work and replace with the attached Addendum B, ITB, Exhibit B – Scope of Work. (**NOTE:** Changes are note in **bold** font.)

CITY OF SAN DIEGO PURCHASING & CONTRACTING DEPARTMENT

V. Delgado

Vanessa Delgado
Supervising Procurement Contracting Officer
(619) 236-6248

June 20, 2019

ADDENDUM B
June 20, 2019

CITY OF SAN DIEGO

PURCHASING & CONTRACTING DEPARTMENT
1200 Third Avenue, Suite 200
San Diego, CA 92101-4195
Fax: (619) 236-5904

ADDENDUM A

Invitation to Bid (ITB) 10089553-19-V

Revised Closing Date: **June 5, 2019**
@ 3:00 p.m.

Bid for furnishing the City of San Diego with **Cationic Polymer for the Public Utilities Water Filtration Plants.**

The following changes to the specifications are hereby made effective as though they were originally shown and/or written:

1. Remove the original cover sheet and replace with the attached Addendum A cover sheet. (**NOTE:** Bid Closing Date has been changed from May 29, 2019 to June 5, 2019.)
2. Remove the original ITB, Signature Page (Page 3 of 9) and replace with the attached Addendum A, Signature Page.
3. Add One (1) page "Questions and Answers". (**NOTE:** The questions and answers are being provided for informational purposes only, and are not part of any resulting contract from this ITB.)

CITY OF SAN DIEGO PURCHASING & CONTRACTING DEPARTMENT

V. Delgado

Vanessa Delgado
Supervising Procurement Contracting Officer
(619) 236-6248

May 31, 2019

ITB 10089553-19-V, Cationic Polymer for the Water Filtration Plants Questions and Answers

Question 1: Who is the current supplier and what are the prices and products provide per location?

Response: The City currently does not have a contract. However, the current pricing and additional product information per location is provided in the table below.

Plants	Current Pricing	Current Supplier	Products/ Percent Concentration
Miramar Water Filtration Plant 10710 Scripps Lake Drive San Diego, CA 92131	\$0.58 per lb	Solenis	Cationic Polymer (Magnafloc) LT 7996
Otay Water Filtration Plant 1500 Wueste Road Chula Vista, CA 91915	\$.52 per lb	Solenis	Cationic Polymer (Magna floc) LT 7985
Alvarado Water Filtration Plant 5540 Kiowa Drive La Mesa, CA 91942	\$0.44 per lb	Solenis	Cationic Polymer (Magnafloc) LT 7996

Question 2: Are bidders to supply pricing for 500 gallons as indicated on page 7 of the bid or 500 Dry Lbs. as indicated on the pricing page 10 of the pricing schedule?

Response: 500 gallons (liquid product) as indicated on page 7.

Question 3: Is the estimated annual amount "1,170,000 pounds" as shown on Page 8 or is it or 1,170,000 Dry Lbs (as indicated by totaling quantities provided for Item No. 1, 2, and 3 as provided on pages 8 and 9)?

Response: 1,170,000 lbs as total product not dry product.

Question 4: Are bidders to divide the 144,000 dry pounds by the active content of the products bid for Item No. 1, 2, and 3 to determine the amount of equivalent as delivered pounds?

Response: Actual amounts associated with each item. The weights are total product weights, not dry lbs.

Question 5: On page 8, when asking for Name and Address of the manufacturer, do you want the address of the headquarters or the address of the manufacturing location?

Response: Both.



**Invitation to Bid (ITB) for
Cationic Polymer for the Public Utilities Water Filtration Plants
Addendum C**

Solicitation Number:	10089553-19-V
Solicitation Issue Date:	May 13, 2019
Questions and Comments Due:	May 20, 2019 @ 12:00 p.m.
Pre-Bid Conference:	No Pre-bid will be held.
Bid Due Date and Time ("Closing Date"):	July 8, 2019 @ 3:00 p.m.
Contract Terms:	5 (five) years from Effective Date, as defined in Article I, Section 1.2 of the City's General Contract Terms and Conditions.
City Contact:	Vanessa Delgado, Supervising Procurement Contracting Officer 1200 Third Avenue, Suite 200 San Diego, California 92101 Cdelgado@sandiego.gov (619) 236-6248
Submissions:	Bidder is required to provide one (1) original and one (1) electronic copy (e.g. thumb drive or CD) of their response as described herein. Completed and signed ITB signature page is required, with most recent addendum listed as acknowledgement of all addenda issued. Note: Emailed submissions will not be accepted.

**CONTRACT RESULTING FROM INVITATION TO BID NUMBER 10089553-19-V, Cationic
Polymer for the Public Utilities Water Filtration Plants**

This Contract (Contract) is entered into by and between the City of San Diego, a municipal corporation (City), and the successful bidder to Invitation to Bid (ITB) # 10089553-19-V, Cationic Polymer for the Public Utilities Water Filtration Plants (Contractor).

RECITALS

On or about 5/13/2019, City issued an ITB to prospective bidders on goods and services to be provided to the City. The ITB and any addenda and exhibits thereto are collectively referred to as the "ITB." The ITB is attached hereto as Exhibit A.

City has determined that Contractor has the expertise, experience, and personnel necessary to provide the goods and services.

City wishes to retain Contractor to provide Carbon Dioxide as further described in the Scope of Work, attached hereto as Exhibit B. (Goods and Services).

For good and valuable consideration, the sufficiency of which is acknowledged, City and Contractor agree as follows:

**ARTICLE I
CONTRACTOR SERVICES**

1.1 Scope of Work. Contractor shall provide the Goods and Services to City as described in Exhibit B which is incorporated herein by reference. Contractor will submit all required forms and information described in Exhibit A to the Purchasing Agent before providing Goods and Service.

1.2 General Contract Terms and Provisions. This Contract incorporates by reference the General Contract Terms and Provisions, attached hereto as Exhibit C.

**ARTICLE II
DURATION OF CONTRACT**

2.1 Term. This Contract shall be for a period of five (5) years beginning on the Effective Date. The term of this Contract shall not exceed five years unless approved by the City Council by ordinance.

2.2 Effective Date. This Contract shall be effective on the date it is executed by the last Party to sign the Contract and approved by the City Attorney in accordance with San Diego Charter Section 40.

**ARTICLE III
COMPENSATION**

3.1 Amount of Compensation. City shall pay Contractor for performance of all Services rendered in accordance with this Contract in an amount not to exceed \$3,000,000.

**ARTICLE IV
WAGE REQUIREMENTS**

4.1 Reserved.

**ARTICLE V
CONTRACT DOCUMENTS**

5.1 Contract Documents. The following documents comprise the Contract between the City and Contractor: this Contract and all exhibits thereto; the Notice to Proceed; and the City's written acceptance of exceptions or clarifications to the ITB, if any.

5.2 Contract Interpretation. The Contract Documents completely describe the goods and services to be provided. Contractor will provide any goods and services that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result whether or not specifically called for or identified in the Contract Documents. Words or phrases which have a well-known technical or construction industry or trade meaning and are used to describe goods and services will be interpreted in accordance with that meaning unless a definition has been provided in the Contract Documents.

5.3 Precedence. In resolving conflicts resulting from errors or discrepancies in any of the Contract Documents, the Parties will use the order of precedence as set forth below. The document highest in the order of precedence controls. Inconsistent provisions in the Contract Documents that address the same subject, are consistent, and have different degrees of specificity, are not in conflict and the more specific language will control. The order of precedence from highest to lowest is as follows:

- 1st The Contract
- 2nd The ITB and the City's written acceptance of any exceptions or clarifications to the ITB, if any
- 3rd Contractor's Pricing

5.4 Counterparts. This Contract may be executed in counterparts which, when taken together, shall constitute a single signed original as though all Parties had executed the same page.

5.5 Public Agencies. Other public agencies, as defined by California Government Code section 6500, may choose to use the terms of this Contract, subject to Contractor's

acceptance. The City is not liable or responsible for any obligations related to a subsequent Contract between Contractor and another public agency.

IN WITNESS WHEREOF, this Contract is executed by City and Contractor acting by and through their authorized officers.

CONTRACTOR

CITY OF SAN DIEGO
A Municipal Corporation

Polydyne Inc.

BY:

Bidder

One Chemical Plant Rd.



Street Address

Riceboro, GA 31323

Print Name: Kristina Peralta

Director

Purchasing & Contracting Department

City

(912) 880-2035

Date Signed


12 MAR 2020

Telephone No.

polybiddpt@snfhc.com

E-Mail

BY:


Signature of Bidder's Authorized Representative

Mark Schlag

Approved as to form this 16 day of

March, 2020.
MARA W. ELLIOTT, City Attorney

Print Name

Vice-President

BY:


Deputy City Attorney

Title

07/05/19

Date

EXHIBIT A
INSTRUCTIONS AND BID REQUIREMENTS

A. BID SUBMISSION

1. Timely Bid Submittal. Bids must be submitted as described herein to the Purchasing & Contracting Department (P&C).

1.1 Reserved.

1.2 Paper Bids. The City will accept paper bids in lieu of eBids. Paper bids must be submitted in a sealed envelope to the Purchasing & Contracting Department (P&C) located at 1200 Third Avenue, Suite 200, San Diego, CA 92101. The Solicitation Number and Closing Date must be referenced in the lower left-hand corner of the outside of the envelope. Faxed bids will not be accepted.

1.3 Bid Due Date. Bids must be submitted prior to the Closing Date indicated in the eBidding System. E-mailed and/or faxed bids will not be accepted.

1.4 Pre-Bid Conference. No pre-bid conference will be held for ITB.

1.4.1 Reserved.

1.5 Questions and Comments. Written questions and comments must be submitted electronically via the eBidding System no later than the date specified on the eBidding System. Only written communications relative to the procurement shall be considered. The City's eBidding System is the only acceptable method for submission of questions. All questions will be answered in writing. The City will distribute questions and answers without identification of the inquirer(s) to all bidders who are on record as having received this ITB via its eBidding System. No oral communications can be relied upon for this ITB. Addenda will be issued addressing questions or comments that are determined by the City to cause a change to any part of this ITB.

1.6 Contact with City Staff. Unless otherwise authorized herein, bidders who are considering submitting a bid in response to this ITB, or who submit a bid in response to this ITB, are prohibited from communicating with City staff about this ITB from the date this ITB is issued until a contract is awarded.

2. Submission of Information and Forms.

2.1 Completed and signed Contract Signature Page. If any addenda are issued, the latest Addendum Contract Signature Page is required.

2.2 Exceptions requested by bidder, if any. The bidder must present written factual or legal justification for any exception requested to the Scope of Work, Contract, or the Exhibits. Any exceptions to the Contract that have not been accepted by the City in writing are deemed rejected. The City, in its sole discretion, may accept some or all of

bidder's exceptions, reject bidder's exceptions and deem the bid non-responsive, or award the Contract without bidder's proposed exceptions.

2.3 The Contractor Standards Pledge of Compliance Form.

2.4 Equal Opportunity Contracting forms including the Work Force Report and Contractors Certification of Pending Actions.

2.5 Reserved

2.6 Reserved.

2.7 Reserved.

2.8 Reserved.

2.9 Reserved

2.10 Reserved

2.11 One copy of the safety data sheet (SDS) for each product bid. Only those products whose label and MSDS clearly state the contents, hazard potential, and protective measures required shall be considered for purchase.

3. Bid Review. Bidders are responsible for carefully examining the ITB, the Scope of Work, this Contract, and all documents incorporated into the Contract by reference before submitting a bid. If selected for award of contract, bidder shall be bound by same unless the City has accepted bidder's exceptions, if any, in writing.

4. Addenda. The City may issue addenda to this ITB as necessary. All addenda are incorporated into the Contract. The bidder is responsible for determining whether addenda were issued prior to a bid submission. Failure to respond to or properly address addenda may result in rejection of a bid.

5. Quantities. The estimated quantities provided by the City are not guaranteed. These quantities are listed for informational purposes only. Quantities vary depending on the demands of the City. Any variations from the estimated quantities shall not entitle the bidder to an adjustment in the unit price or any additional compensation.

6. Quality. Unless otherwise required, all goods furnished shall be new and the best of their kind.

6.1 Items Offered. Bidder shall state the applicable trade name, brand, catalog, manufacturer, and/or product number of the required good, if any, in the bid.

6.2 Brand Names. Any reference to a specific brand name in a solicitation is illustrative only and describes a component best meeting the specific operational, design,

performance, maintenance, quality, or reliability standards and requirements of the City. Bidder may offer an equivalent or equal in response to a brand name referenced (Proposed Equivalent). The City may consider the Proposed Equivalent after it is subjected to testing and evaluation which must be completed prior to the award of contract. If the bidder offers an item of a manufacturer or vendor other than that specified, the bidder must identify the maker, brand, quality, manufacturer number, product number, catalog number, or other trade designation. The City has complete discretion in determining if a Proposed Equivalent will satisfy its requirements. It is the bidder's responsibility to provide, at their expense, any product information, test data, or other information or documents the City requests to properly evaluate or demonstrate the acceptability of the Proposed Equivalent, including independent testing, evaluation at qualified test facilities, or destructive testing.

7. Modifications, Withdrawals, or Mistakes. Bidder is responsible for verifying all prices and extensions before submitting a bid.

7.1 Modification or Withdrawal of Bid before Bid Opening. Prior to the Closing Date, the bidder or bidder's authorized representative may modify or withdraw the bid by providing written notice of the bid modification or withdrawal to the City Contact via the eBidding System. E-mail or telephonic withdrawals or modifications are not permissible.

7.2 Bid Modification or Withdrawal of Bid After Bid Opening. Any bidder who seeks to modify or withdraw a bid because of the bidder's inadvertent computational error affecting the bid price shall notify the City Contact identified on the eBidding System no later than three working days following the Closing Date. The bidder shall provide worksheets and such other information as may be required by the City to substantiate the claim of inadvertent error. Failure to do so may bar relief and allow the City recourse from the bid surety. The burden is upon the bidder to prove the inadvertent error. If, as a result of a bid modification, the bidder is no longer the apparent successful bidder, the City will award to the newly established apparent successful bidder. The City's decision is final.

8. Incurred Expenses. The City is not responsible for any expenses incurred by bidders in participating in this solicitation process.

9. Public Records. By submitting a bid, the bidder acknowledges that any information submitted in response to this ITB is a public record subject to disclosure unless the City determines that a specific exemption in the California Public Records Act (CPRA) applies. If the bidder submits information clearly marked confidential or proprietary, the City may protect such information and treat it with confidentiality to the extent permitted by law. However, it will be the responsibility of the bidder to provide to the City the specific legal grounds on which the City can rely in withholding information requested under the CPRA should the City choose to withhold such information. General references to sections of the CPRA will not suffice. Rather, the bidder must provide a specific and detailed legal basis, including applicable case law, that clearly establishes the requested information is exempt from the disclosure under the CPRA. If the bidder does not provide a specific and detailed legal basis for requesting the City to withhold bidder's confidential or proprietary information at the time of bid submittal, City will release the information as required by the CPRA and bidder will hold the City, its elected officials, officers, and employees harmless for

release of this information. It will be the bidder's obligation to defend, at bidder's expense, any legal actions or challenges seeking to obtain from the City any information requested under the CPRA withheld by the City at the bidder's request. Furthermore, the bidder shall indemnify and hold harmless the City, its elected officials, officers, and employees from and against any claim or liability, and defend any action brought against the City, resulting from the City's refusal to release information requested under the CPRA which was withheld at bidder's request. Nothing in the Contract resulting from this bid creates any obligation on the part of the City to notify the bidder or obtain the bidder's approval or consent before releasing information subject to disclosure under the CPRA.

10. Right to Audit. The City Auditor may access bidder's records as described in San Diego Charter section 39.2 to confirm contract compliance.

B. PRICING

1. Fixed Price. All prices shall be firm, fixed, fully burdened, FOB destination, and include any applicable delivery or freight charges, and any other costs required to provide the requirements as specified in this ITB.

2. Taxes and Fees. Taxes and applicable local, state, and federal regulatory fees should not be included in the price proposal. Applicable taxes and regulatory fees will be added to the net amount invoiced. The City is liable for state, city, and county sales taxes but is exempt from Federal Excise Tax and will furnish exemption certificates upon request. All or any portion of the City sales tax returned to the City will be considered in the evaluation of bids.

3. Escalation. An escalation factor is not allowed unless called for in this ITB. If escalation is allowed, bidder must notify the City in writing in the event of a decline in market price(s) below the bid price. At that time, the City will make an adjustment in the Contract or may elect to re-solicit.

4. Unit Price. Unless the bidder clearly indicates that the price is based on consideration of being awarded the entire lot and that an adjustment to the price was made based on receiving the entire bid, any difference between the unit price correctly extended and the total price shown for all items shall be offered shall be resolved in favor of the unit price.

C. BID OPENING. All bids will be opened at, or immediately after, the time noticed for the bid opening in a location that is open to the public. No bidder or interested person will be excluded from the bid opening. Where no member of the public is in attendance, at least one City officer or employee, in addition to the City employee opening the bids, will be present. Bid results will be announced in the presence of those attending. The name of the project will be audibly announced to those present followed by the name of the bidder, the name of the surety, the amount of the bond, if required, and the total amounts or unit amounts bid. Any person present shall have the right to ask the announcements be repeated or to ask that omitted data be supplied. Such requests will be honored to the extent they do not

unreasonably delay or interfere with the bid opening procedure, as determined at the sole discretion of the City employee opening the bids.

D. EVALUATION OF BIDS

1. **Low Bid Award.** A contract will be awarded to the lowest responsible and responsive bidder.

2. **Additional Information.** The City may require bidder to provide additional written or oral information to clarify responses.

3. **Sustainable Materials.** Consistent with Council Policy 100-14, the City encourages use of readily recyclable submittal materials that contain post-consumer recycled content.

4. **Waiver of Defects and Technicalities.** The City may waive defects and technicalities in bids when to do so is in the City's best interests.

5. **Rejection of All Bids.** The City may reject any and all bids when to do so is in the City's best interests.

E. ANNOUNCEMENT OF AWARD

1. **Award of Contract.** The City will inform all bidders of its intent to award a Contract in writing.

2. **Obtaining Bid Results.** Bid results may be obtained by: (1) attending the bid opening; (2) e-mailing a request to the City Contact identified on the eBidding System; or (3) visiting the P&C eBidding System to review the bid results. To ensure an accurate response, requests should reference the Solicitation Number. Bid results will not be released over the phone.

3. **Multiple Awards.** City may award more than one contract by awarding separate items or groups of items to various bidders. The additional administrative costs associated with awarding more than one Contract will be considered in the determination.

F. PROTESTS. The City's protest procedures are codified in Chapter 2, Article 2, Division 30 of the San Diego Municipal Code (SDMC). These procedures provide unsuccessful bidders with the opportunity to challenge the City's determination on legal and factual grounds. The City will not consider or otherwise act upon an untimely protest.

G. SUBMITTALS REQUIRED UPON NOTICE OF INTENT TO AWARD. The successful bidder is required to submit the following documents to P&C **within ten (10) business days** from the date on the Notice of Intent to Award letter:

1. **Insurance Documents.** Evidence of all required insurance, including all required endorsements, as specified in Article VII of the General Contract Terms and Provisions.

2. **Taxpayer Identification Number.** Internal Revenue Service (IRS) regulations require the City to have the correct name, address, and Taxpayer Identification Number (TIN) or Social Security Number (SSN) on file for businesses or persons who provide goods or services to the City. This information is necessary to complete Form 1099 at the end of each tax year. To comply with IRS regulations, the City requires each Contractor to provide a Form W-9 prior to the award of a Contract.

3. **Business Tax Certificate.** All businesses that contract with the City must have a current business tax certificate unless the City Treasurer determines the business is exempt.

4. **Reserved.**

5. Reserved.

The City may find the bidder to be non-responsive and award the Contract to the next responsible and responsive low bidder if the apparent successful bidder fails to timely provide the required information or documents.

**EXHIBIT B
SCOPE OF WORK**

A. OVERVIEW

The City of San Diego, Public Utilities Department (City) requires a Contractor to provide Cationic Polymer/Diallyldimethyl Ammonium Chloride ("Product") to be delivered, as needed, to the City's Alvarado, Miramar, and Otay Water Filtration Plants.

B. BID SPECIFICATIONS

Product must meet the following requirements:

1. The Product shall conform to the American Water Works Association (AWWA) Standard for Cationic Polymer, AWWA B451-10, and be NSF/ANSI 60 certified for maximum use in potable water and water service applications. Evidence of current ANSI/NSF 60 certification must accompany bid submittals.
2. The Product specific gravity shall be in the range stated on the Product's Safety Data Sheet.
3. The Product pH shall range from 4.0-7.5.
4. The Product shall be free of biological contamination.
5. The Product shall be chemically non-reactive.
6. The Product must be stable to the actions of strong oxidants such as chlorine, chlorine dioxide, and ozone at concentrations normally encountered in conventional water treatment.

C. DELIVERY REQUIREMENTS

The City estimates the Contractor will be required to deliver Product every six (6) weeks, or as needed, to the locations listed below. The City reserves the right to add or remove delivery locations, as may be needed, throughout the contract period at no additional cost to the City.

1. Miramar Water Filtration Plant
10710 Scripps Lake Drive
San Diego, CA 92131
2. Otay Water Filtration Plant
1500 Wueste Road (Off of Olympic Parkway)
Chula Vista, CA 91915

3. Alvarado Water Filtration Plant
5540 Kiowa Drive
La Mesa, CA 91942

Contractor shall provide deliveries in tank truck lots of 4,500 – 5,000 gallons to each of the above locations between the hours of 7:00 a.m. and 2:00 p.m., Monday through Friday, except holidays.

All deliveries must be accompanied by an invoice or delivery receipt which includes the price of the item being delivered. A copy of this document must be signed by the individual accepting delivery. All invoices and delivery tickets must reference applicable purchase order numbers and/or sub-order numbers. Contractor shall be responsible for all delivery fees associated with third-party deliveries.

Contractor shall supply samples of each load of bulk material delivered at the time of delivery for evaluation of the shipment as a part of the quality control process.

Delivery weight of material shall be determined by certified scales. Certificates of weight shall be furnished by Contractor for all loads of polymer at the time of delivery. Each delivery slip must indicate the total solids, total polymer, and polymer concentration.

Orders shall be delivered within **seven (7)** business days after receipt of order (verbal and/or written).

D. EMERGENCY ORDERS

In an emergency, the City requires deliveries to be made within forty-eight (48) hours. In the event the Contractor is unable to deliver within this time frame the City reserves the right to purchase off-contract.

In addition, if at any time the contractor fails to deliver material within time indicated on the proposal page and this causes any plant to run short of product or run the risk of being totally out of this product, the City reserves the right to purchase off-contract. If under such circumstance it becomes necessary for the City to obtain the product on an emergency basis (due to failure of Contractor to deliver, or the apparent likelihood that Contractor will be unable to deliver) the City will bill Contractor for the difference in cost between the contract price and the price the City paid for the emergency delivery.

Furthermore, should the City be subjected to fines or any other expenses as a result of Contractor's or agents of the Contractor's failure to deliver the product herein specified, Contractor will be held liable to the City for reimbursement of the entire amount of expense imposed upon the City because of late or non-delivery.

E. WATER FILTRATION PLANT SAMPLES

Bidder may obtain plant water samples for off-site testing purposes. To arrange for

collection of water samples, bidders shall contact the Senior Water Operations Supervisors as named below, prior to the bid opening date.

1. Thomas Watson
Miramar Water Filtration Plant
10710 Scripps Lake Drive
San Diego, CA 92131
(858) 635-7304
2. Patrick "Cory" Boyd
Otay Water Filtration Plant
1500 Wueste Road
Chula Vista, CA 91915
(619) 424-0452
3. Stephen Moore
Alvarado Water Filtration Plant
5540 Kiowa Drive
La Mesa, CA 91942
(619) 668-2017

F. BID SAMPLES

Definitions:

1. Product: Liquid PolyDADMAC, 10% – 40% (w/w).
2. Product concentration (w/w): Mass of Product total solids per mass of Product.
3. Product Price: Price of delivered Product as total solids.
4. Relative Performance Price: Product Price divided by the concentration of organic carbon removed from solution in a standardized jar test analysis. (Equivalent to Low-Bid Price).

Bidder shall submit at least one, but no more than three, Product samples of unique formulation for evaluation. Approximately 500 mL of each Product shall be submitted for testing at Bidder's expense and delivered to: City of San Diego, Water Quality Laboratory, 5530 Kiowa Drive, La Mesa, CA 91942-1331. Product samples must be submitted to the Water Quality Laboratory between the hours of 8:00 a.m. and 3:00 p.m. Pacific Time. Product samples must be received on or before 12:00 p.m. on **June 28, 2019**. If Bidder fails to submit a Product sample by the due date and time, the bid response will be rejected and the Bidder deemed as non-responsive to the bid. Product sample shall include, at a minimum, name of Bidder; name of Product or unique Product identifier; date of delivery; Safety Data Sheet (SDS); and approximate solution percent strength (w/w). Please contact Jim Demorest, Associate Chemist at (619) 668-3260, jdemorest@sandiego.gov if you wish to schedule hand delivery of Product sample.

The successful Bidder shall warrant that the Product to be furnished is substantially equivalent to the contents and purities specified herein and that the Product to be furnished under contract is substantially equal to the Product sample submitted for testing. Product

sample must be produced by the plant from which the Product will be furnished. Product samples prepared in a laboratory are not acceptable. The City reserves the right to request additional samples, at no cost to the City, for additional evaluation purposes.

G. PRODUCT EVALUATION

The City shall conduct Product evaluation in two stages. In the first stage, all Product sample submissions will be evaluated against a defined performance criterion—total organic carbon reduction—using a benchtop jar tester. Three separate jar test evaluations shall be conducted on each Product; each tailored to simulate the operating conditions of three separate plants operated by the City. A preliminary award specific to each filtration plant will be granted to the Bidder whose Product is offered at the lowest Relative Performance Price (as determined by a jar test), assuming all other necessary requirements associated with this bid specification have been satisfied.

In the second stage, the City shall conduct a full-scale evaluation of each low-bid Product(s) at its associated water filtration plant. If Product performance satisfies a defined set of criteria specific to the associated full-scale plant, a contract shall be awarded to the low-bidder to provide Product *for that plant*. For any plant in which the low-bid Product does not satisfy the associated full-scale performance criteria, a contract shall not be awarded to the low-bidder for that Product. Instead, the full-scale performance evaluation shall be repeated using the next lowest-bid Product, irrespective of the Bidder. This process shall be repeated as necessary using each Product in succession, according to Relative Performance Price, until the full-scale plant performance criteria has been satisfied.

Stage I: Preliminary Jar Testing

- The City shall conduct a preliminary evaluation of Bidder Product(s) using a Phipps and Bird jar tester programmed with the following generic method:

STANDARD JAR TEST PROGRAM

Sequence	M1	M2	M3	M4
RPM	100	30	10	0
min:sec	1:00	15:00	15:00	15:00
Description	Rapid Mix	Fast Flocculation	Slow Flocculation	Settling
Action	<ul style="list-style-type: none"> • Introduce Ferric • Introduce Polymer 			Decant & filter through 0.45 µm filter. Analyze for TOC.

- Equal concentrations of each Bidder's Product (dry-weight basis as total solids) shall be performance tested in combination with equal concentrations of ferric chloride that are dosed in equivalent untreated surface water randomly collected from each City filtration plant
- TOC determinations shall follow Standard Methods 5310B
- Jar testing shall follow procedures outlined in Enhanced Coagulation and Enhanced Precipitative Softening Guidance Manual, EPA 815-R-99-012, May 1999
- Total Solids determinations shall follow AWWA B451-10
- Bidder may request up to 5 gallons of each plant influent prior to, but no later than seven (7) days after, the bid opening date. Requests will only be fulfilled on a will-call basis using Bidder's container and must be coordinated through the plant's Senior Water Operations Supervisor (SE).
- Although the City cannot guarantee the physical and/or chemical properties of randomly collected surface water, the following historical ranges can be presumed reliable for predicting future water quality and polyDADMAC treatability:

Historical Water Quality Ranges

Untreated Influent

January 2017 through December 2018

	Miramar FP	Alvarado FP	Otay FP
Turbidity (NTU)	<4.5	<4.6	<7.4
TOC (mg/L)	2.3 – 3.7	2.4 – 4.7	2.0 – 7.4
Alkalinity (mg/L as CaCO ₃)	64 – 130	78 – 140	77 – 180
Hardness (mg/L as CaCO ₃)	130 – 290	140 – 300	120 – 270
Conductivity (µS/cm)	430 – 960	490 – 950	470 – 1000

Historical Water Quality Ranges
Untreated Influent
January 2017 through December 2018

	Miramar FP	Alvarado FP	Otay FP
TDS (mg/L)	260 – 620	300 – 610	270 – 590
pH	6.9 – 8.7	6.9 – 8.3	6.9 – 8.6
Temperature (°C)	12 – 29	10 – 30	14 – 30

Example of Stage I Evaluation

Bidder #1 submits one unique formulation of liquid polyDADMAC and Bidder #2 submits two unique formulations of liquid polyDADMAC. The polymer materials are evaluated in a jar test simulating real-world treatment dosages of 4.0 mg/L ferric chloride combined with 0.30 mg/L polyDADMAC (approximately 1.5 mg/L as liquid 20% polyDADMAC).

1. The % Total Solids of each Product is measured and used to calculate the spike volume for a 2-liter jar test:

Bidder	Product ID	Product Concentration (mg _{TS} / mg _{Product})	Spiking Mass, -Undiluted- (mg)	Concentration, polyDADMAC (mg/L)
#1	1A	0.213	2.8	0.30
#2	2A	0.396	1.5	0.30
#2	2B	0.190	3.2	0.30

2. A jar test is performed on each Product using randomly collected plant influent spiked with equivalent dosages of ferric chloride and polymer (4.0 mg/L: 0.30 mg/L).
3. The settled water from each jar is decanted and individually filtered through a 0.45 µm filter and analyzed for total organic carbon (TOC).

4. The concentration of organic carbon from each filtered sample is subtracted from the organic carbon concentration of the untreated water to determine the organic carbon reduction concentration.
5. The lowest Relative Performance Price is calculated, and the preliminary award is granted:

Bidder	Product ID	Product Price (\$/unit mass)	TOC, <i>initial</i> (mg/L)	TOC, <i>final</i> (mg/L)	TOC, <i>reduction</i> (mg/L)	Relative Performance Price (\$/TOC, <i>reduction</i>)
#1	1A	1.25	3.98	3.45	0.53	2.36
#2	2A	1.60	3.98	3.51	0.47	3.40
#2	2B	1.35	3.98	3.40	0.58	2.33

In this example, Product 2B from the second bidder would be granted a preliminary award for the plant represented by the surface water character and chemical dosages used in the jar test. Final contract award is contingent upon satisfying a full-scale evaluation (Stage II) with an acceptable assessment.

Stage II: Full-scale Plant Evaluation

In preparation for full-scale plant evaluation, Bidder selected for preliminary award shall deliver **3,000 lbs.** of Product to the respective plant(s) within one (1) week of request by the City. Product shall be provided at City's expense, per prices bid herein. Plant Operations staff will be responsible for full-scale plant testing and shall reserve the sole right of assessment.

Plant Operators shall conclude their full-scale evaluation and report their assessment, either acceptable or not acceptable, to the City's Technical Representative within one (1) week of Product delivery. Operator's assessment shall be based on a comprehensive review of Product's effect on plant metrics and processes that includes, but is not necessarily limited to:

- Pumping and mixing characteristics related to Product viscosity and specific gravity
- Flocculation
- Settling velocity and settled water turbidity
- Filter head loss
- Effluent turbidity

H. TECHNICAL REPRESENTATIVE

The Technical Representative for this Contract is identified in the notice of award and is responsible for overseeing and monitoring this Contract.

I. PRICING SCHEDULE

The City estimates 1,170,000 pounds annually. The estimated annual amount by facility is indicated below and the quantities shown are estimates only. The City reserves the right to purchase more or less as need dictates. Successful bidder agrees to waive any differences, whether more or less, between estimated quantities and quantities actually ordered. The City shall not be obligated to purchase supplier's excess inventory of any item if actual purchases vary from estimates.

The Cationic Polymer to be purchased under this contract is for water treatment and is therefore not subject to California State Sales Tax. City Resale Number is SRF-25027328.

Contractor shall provide the following information with the Pricing Schedule as part of the bid submittal:

Name and Address of Manufacturer: Polydyne Inc., 4690 Worth Street, Los Angeles, CA 90063 (manufacturing location)
Polydyne Inc., One Chemical Plant Rd., Riceboro, GA 31323

State percent (%) in solution of product bid: _____ 20 % for Clarifloc C-308P and Clarifloc C-358
_____ 40 % for Clarifloc C-318

Bidder agrees to supply Cationic Polymer in "4,500 - 5,000" gallon lots. Contractor must maintain a supply of Cationic Polymer at storage or warehouse locations within United States within eighteen (18) hours' drive of delivery points.

SECTION 1 – CATIONIC POLYMER/DIALLYDMETHYL AMMONIUM CHLORIDE FOR ALVARADO WATER FILTRATION PLANT

Item No.	Est. Annual Qty.	UOM	Description	Unit Price	Extension
1.	405,000	Lbs.	Cationic Polymer <u>FOB Destination:</u> Alvarado Water Filtration Plant Product No: Clarifloc C-308P, or Clarifloc C-358 Total weight basis of 405,000 pounds of above noted polymer product: 405,000 lbs.	\$ 0.515/Lb.	\$ 208,575.00
Please Note: The products above are 20% dadmac products. Polydyne Inc. is also bidding Clarifloc C-318, which is a 40% dadmac product. The price for this product is \$0.905/Lb.					Subtotal for Section 1: \$208,575.00

SECTION 2 – CATIONIC POLYMER/DIALLYDMETHYL AMMONIUM CHLORIDE FOR OTAY WATER FILTRATION PLANT

Item No.	Est. Annual Qty.	UOM	Description	Unit Price	Extension
1.	360,000	Lbs.	Cationic Polymer <u>FOB Destination:</u> Otay Water Filtration Plant Product No: Clarifloc C-308P, or Clarifloc C-358 Total weight basis of 360,000 pounds of above noted polymer product: 360,000 lbs.	\$ 0.515/Lb.	\$ 185,400.00
Please Note: The products above are 20% dadmac products. Polydyne Inc. is also bidding Clarifloc C-318, which is a 40% dadmac product. The price for this product is \$0.905/Lb.					Subtotal for Section 2: \$185,400.00

SECTION 3 – CATIONIC POLYMER/DIALLYDMETHYL AMMONIUM CHLORIDE FOR MIRAMAR WATER FILTRATION PLANT

Item No.	Est. Annual Qty.	UOM	Description	Unit Price	Extension
1.	405,000	Lbs.	Cationic Polymer <u>FOB Destination:</u> Miramar Water Filtration Plant Product No: Clarifloc C-308P, or Clarifloc C-358 Total weight basis of 405,000 pounds of above noted polymer product: 405,000 lbs.	\$ 0.515/Lb.	\$ 208,575.00
Please Note: The products above are 20% dadmac products. Polydyne Inc. is also bidding Clarifloc C-318, which is a 40% dadmac product. The price for this product is \$0.905/Lb.					
Subtotal for Section 3:					\$208,575.00

SECTION 4 – FULL CATIONIC POLYMER/DIALLYDMETHYL AMMONIUM CHLORIDE TESTING FOR WATER TREATMENT PLANTS

Item No.	Est. Qty.	UOM	Description	Unit Price	Extension
1.	3000	Lbs.	Cationic Polymer <u>FOB Destination:</u> Alvarado Water Filtration Plant Product No: Clarifloc C-308P, or Clarifloc C-358 Total weight basis of 3000 pounds of above noted polymer product: 3000 lbs.	\$ 0.515/Lb.	\$ 1,545.00

Item No.	Est. Qty.	UOM	Description	Unit Price	Extension
2.	3000	Lbs.	Cationic Polymer <u>FOB Destination:</u> Otay Water Filtration Plant Product No: Clarifloc C-308P, or Clarifloc C-358 Total weight basis of 3000 pounds of above noted polymer product: <u>3000</u> lbs.	\$ <u>0.515/Lb.</u>	\$ <u>1,545.00</u>
3.	3000	Lbs.	Cationic Polymer <u>FOB Destination:</u> Miramar Water Filtration Plant Product No: Clarifloc C-308P, or Clarifloc C-358 Total weight basis of 3000 pounds of above noted polymer product: <u>3000</u> lbs.	\$ <u>0.515/Lb.</u>	\$ <u>1,545.00</u>
Please Note: The products above are 20% dadmac products. Polydyne Inc. is also bidding Clarifloc C-318, which is a 40% dadmac product. The price for this product is \$0.905/Lb.					
Subtotal for Section 4:					\$4,635.00

Estimated Annual Bid Total for Sections 1 -4 (*Annual bid total if all sections awarded to one Contractor)	\$ <u>607,185.00</u>
Estimated Total Contract Value (Est. Annual Bid Total x 5-year Contract Term)	\$ <u>3,035,925.00</u>

EXHIBIT C



THE CITY OF SAN DIEGO
GENERAL CONTRACT TERMS AND PROVISIONS
APPLICABLE TO GOODS, SERVICES, AND CONSULTANT CONTRACTS

ARTICLE I SCOPE AND TERM OF CONTRACT

1.1 Scope of Contract. The scope of contract between the City and a provider of goods and/or services (Contractor) is described in the Contract Documents. The Contract Documents are comprised of the Request for Proposal, Invitation to Bid, or other solicitation document (Solicitation); the successful bid or proposal; the letter awarding the contract to Contractor; the City's written acceptance of exceptions or clarifications to the Solicitation, if any; and these General Contract Terms and Provisions.

1.2 Effective Date. A contract between the City and Contractor (Contract) is effective on the last date that the contract is signed by the parties and approved by the City Attorney in accordance with Charter section 40. Unless otherwise terminated, this Contract is effective until it is completed or as otherwise agreed upon in writing by the parties, whichever is the earliest. A Contract term cannot exceed five (5) years unless approved by the City Council by ordinance.

1.3 Contract Extension. The City may, in its sole discretion, unilaterally exercise an option to extend the Contract as described in the Contract Documents. In addition, the City may, in its sole discretion, unilaterally extend the Contract on a month-to-month basis following contract expiration if authorized under Charter section 99 and the Contract Documents. Contractor shall not increase its pricing in excess of the percentage increase described in the Contract.

ARTICLE II CONTRACT ADMINISTRATOR

2.1 Contract Administrator. The Purchasing Agent or designee is the Contract Administrator for purposes of this Contract, and has the responsibilities described in this Contract, in the San Diego Charter, and in Chapter 2, Article 2, Divisions 5, 30, and 32.

2.1.1 Contractor Performance Evaluations. The Contract Administrator will evaluate Contractor's performance as often as the Contract Administrator deems necessary throughout the term of the contract. This evaluation will be based on criteria including the quality of goods or services, the timeliness of performance, and adherence to applicable laws, including prevailing wage and living wage. City will provide Contractors who receive an unsatisfactory rating with a copy of the evaluation and an opportunity to respond. City may consider final evaluations, including Contractor's response, in evaluating future proposals and bids for contract award.

2.2 Notices. Unless otherwise specified, in all cases where written notice is required under this Contract, service shall be deemed sufficient if the notice is personally delivered or deposited in the United States mail, with first class postage paid, attention to the Purchasing Agent. Proper notice is effective on the date of personal delivery or five (5) days after deposit in a United States postal mailbox unless provided otherwise in the Contract. Notices to the City shall be sent to:

Purchasing Agent
City of San Diego, Purchasing and Contracting Division
1200 3rd Avenue, Suite 200
San Diego, CA 92101-4195

ARTICLE III COMPENSATION

3.1 Manner of Payment. Contractor will be paid monthly, in arrears, for goods and/or services provided in accordance with the terms and provisions specified in the Contract.

3.2 Invoices.

3.2.1 Invoice Detail. Contractor's invoice must be on Contractor's stationary with Contractor's name, address, and remittance address if different. Contractor's invoice must have a date, an invoice number, a purchase order number, a description of the goods or services provided, and an amount due.

3.2.2 Service Contracts. Contractor must submit invoices for services to City by the 10th of the month following the month in which Contractor provided services. Invoices must include the address of the location where services were performed and the dates in which services were provided.

3.2.3 Goods Contracts. Contractor must submit invoices for goods to City within seven days of the shipment. Invoices must describe the goods provided.

3.2.4 Parts Contracts. Contractor must submit invoices for parts to City within seven calendar (7) days of the date the parts are shipped. Invoices must include the manufacturer of the part, manufacturer's published list price, percentage discount applied in accordance with Pricing Page(s), the net price to City, and an item description, quantity, and extension.

3.2.5 Extraordinary Work. City will not pay Contractor for extraordinary work unless Contractor receives prior written authorization from the Contract Administrator. Failure to do so will result in payment being withheld for services. If approved, Contractor will include an invoice that describes the work performed and the location where the work was performed, and a copy of the Contract Administrator's written authorization.

3.2.6 Reporting Requirements. Contractor must submit the following reports using the City's web-based contract compliance portal. Incomplete and/or delinquent reports may cause payment delays, non-payment of invoice, or both. For questions, please view the City's online tutorials on how to utilize the City's web-based contract compliance portal.

3.2.6.1 Monthly Employment Utilization Reports. Contractor and Contractor's subcontractors and suppliers must submit Monthly Employment Utilization Reports by the fifth (5th) day of the subsequent month.

3.2.6.2 Monthly Invoicing and Payments. Contractor and Contractor's subcontractors and suppliers must submit Monthly Invoicing and Payment Reports by the fifth (5th) day of the subsequent month.

3.3 Annual Appropriation of Funds. Contractor acknowledges that the Contract term may extend over multiple City fiscal years, and that work and compensation under this Contract is contingent on the City Council appropriating funding for and authorizing such work and compensation for those fiscal years. This Contract may be terminated at the end of the fiscal year for which sufficient funding is not appropriated and authorized. City is not obligated to pay Contractor for any amounts not duly appropriated and authorized by City Council.

3.4 Price Adjustments. Based on Contractor's written request and justification, the City may approve an increase in unit prices on Contractor's pricing pages consistent with the amount requested in the justification in an amount not to exceed the increase in the Consumer Price Index, San Diego Area, for All Urban Customers (CPI-U) as published by the Bureau of Labor Statistics, or 5.0%, whichever is less, during the preceding one year term. If the CPI-U is a negative number, then the unit prices shall not be adjusted for that option year (the unit prices will not be decreased). A negative CPI-U shall be counted against any subsequent increases in the CPI-U when calculating the unit prices for later option years. Contractor must provide such written request and justification no less than sixty days before the date in which City may exercise the option to renew the contract, or sixty days before the anniversary date of the Contract. Justification in support of the written request must include a description of the basis for the adjustment, the proposed effective date and reasons for said date, and the amount of the adjustment requested with documentation to support the requested change (e.g. CPI-U or 5.0%, whichever is less). City's approval of this request must be in writing.

ARTICLE IV SUSPENSION AND TERMINATION

4.1 City's Right to Suspend for Convenience. City may suspend all or any portion of Contractor's performance under this Contract at its sole option and for its convenience for a reasonable period of time not to exceed six (6) months. City must first give ten (10) days' written notice to Contractor of such suspension. City will pay to Contractor a sum equivalent to the reasonable value of the goods and/or services satisfactorily provided up to the date of suspension. City may rescind the suspension prior to or at six (6) months by providing Contractor with written notice of the rescission, at which time Contractor would be required to resume performance in compliance with the terms and provisions of this Contract. Contractor will be entitled to an extension of time to complete performance under the Contract equal to the length of the suspension unless otherwise agreed to in writing by the Parties.

4.2 City's Right to Terminate for Convenience. City may, at its sole option and for its convenience, terminate all or any portion of this Contract by giving thirty (30) days' written notice of such termination to Contractor. The termination of the Contract shall be effective upon receipt of the notice by Contractor. After termination of all or any portion of the Contract, Contractor shall: (1) immediately discontinue all affected performance (unless the notice directs

otherwise); and (2) complete any and all additional work necessary for the orderly filing of documents and closing of Contractor's affected performance under the Contract. After filing of documents and completion of performance, Contractor shall deliver to City all data, drawings, specifications, reports, estimates, summaries, and such other information and materials created or received by Contractor in performing this Contract, whether completed or in process. By accepting payment for completion, filing, and delivering documents as called for in this section, Contractor discharges City of all of City's payment obligations and liabilities under this Contract with regard to the affected performance.

4.3 City's Right to Terminate for Default. Contractor's failure to satisfactorily perform any obligation required by this Contract constitutes a default. Examples of default include a determination by City that Contractor has: (1) failed to deliver goods and/or perform the services of the required quality or within the time specified; (2) failed to perform any of the obligations of this Contract; and (3) failed to make sufficient progress in performance which may jeopardize full performance.

4.3.1 If Contractor fails to satisfactorily cure a default within ten (10) calendar days of receiving written notice from City specifying the nature of the default, City may immediately cancel and/or terminate this Contract, and terminate each and every right of Contractor, and any person claiming any rights by or through Contractor under this Contract.

4.3.2 If City terminates this Contract, in whole or in part, City may procure, upon such terms and in such manner as the Purchasing Agent may deem appropriate, equivalent goods or services and Contractor shall be liable to City for any excess costs. Contractor shall also continue performance to the extent not terminated.

4.4 Termination for Bankruptcy or Assignment for the Benefit of Creditors. If Contractor files a voluntary petition in bankruptcy, is adjudicated bankrupt, or makes a general assignment for the benefit of creditors, the City may at its option and without further notice to, or demand upon Contractor, terminate this Contract, and terminate each and every right of Contractor, and any person claiming rights by and through Contractor under this Contract.

4.5 Contractor's Right to Payment Following Contract Termination.

4.5.1 Termination for Convenience. If the termination is for the convenience of City an equitable adjustment in the Contract price shall be made. No amount shall be allowed for anticipated profit on unperformed services, and no amount shall be paid for an as needed contract beyond the Contract termination date.

4.5.2 Termination for Default. If, after City gives notice of termination for failure to fulfill Contract obligations to Contractor, it is determined that Contractor had not so failed, the termination shall be deemed to have been effected for the convenience of City. In such event, adjustment in the Contract price shall be made as provided in Section 4.3.2. City's rights and remedies are in addition to any other rights and remedies provided by law or under this Contract.

4.6 Remedies Cumulative. City's remedies are cumulative and are not intended to be exclusive of any other remedies or means of redress to which City may be lawfully entitled in case of any breach or threatened breach of any provision of this Contract.

ARTICLE V ADDITIONAL CONTRACTOR OBLIGATIONS

5.1 Inspection and Acceptance. The City will inspect and accept goods provided under this Contract at the shipment destination unless specified otherwise. Inspection will be made and acceptance will be determined by the City department shown in the shipping address of the Purchase Order or other duly authorized representative of City.

5.2 Responsibility for Lost or Damaged Shipments. Contractor bears the risk of loss or damage to goods prior to the time of their receipt and acceptance by City. City has no obligation to accept damaged shipments and reserves the right to return damaged goods, at Contractor's sole expense, even if the damage was not apparent or discovered until after receipt.

5.3 Responsibility for Damages. Contractor is responsible for all damage that occurs as a result of Contractor's fault or negligence or that of its' employees, agents, or representatives in connection with the performance of this Contract. Contractor shall immediately report any such damage to people and/or property to the Contract Administrator.

5.4 Delivery. Delivery shall be made on the delivery day specified in the Contract Documents. The City, in its sole discretion, may extend the time for delivery. The City may order, in writing, the suspension, delay or interruption of delivery of goods and/or services.

5.5 Delay. Unless otherwise specified herein, time is of the essence for each and every provision of the Contract. Contractor must immediately notify City in writing if there is, or it is anticipated that there will be, a delay in performance. The written notice must explain the cause for the delay and provide a reasonable estimate of the length of the delay. City may terminate this Contract as provided herein if City, in its sole discretion, determines the delay is material.

5.5.1 If a delay in performance is caused by any unforeseen event(s) beyond the control of the parties, City may allow Contractor to a reasonable extension of time to complete performance, but Contractor will not be entitled to damages or additional compensation. Any such extension of time must be approved in writing by City. The following conditions may constitute such a delay: war; changes in law or government regulation; labor disputes; strikes; fires, floods, adverse weather or other similar condition of the elements necessitating cessation of the performance; inability to obtain materials, equipment or labor; or other specific reasons agreed to between City and Contractor. This provision does not apply to a delay caused by Contractor's acts or omissions. Contractor is not entitled to an extension of time to perform if a delay is caused by Contractor's inability to obtain materials, equipment, or labor unless City has received, in a timely manner, documentary proof satisfactory to City of Contractor's inability to obtain materials, equipment, or labor, in which case City's approval must be in writing.

5.6 Restrictions and Regulations Requiring Contract Modification. Contractor shall immediately notify City in writing of any regulations or restrictions that may or will require Contractor to alter the material, quality, workmanship, or performance of the goods and/or services to be provided. City reserves the right to accept any such alteration, including any resulting reasonable price adjustments, or to cancel the Contract at no expense to the City.

5.7 Warranties. All goods and/or services provided under the Contract must be warranted by Contractor or manufacturer for at least twelve (12) months after acceptance by City, except automotive equipment. Automotive equipment must be warranted for a minimum of 12,000 miles or 12 months, whichever occurs first, unless otherwise stated in the Contract. Contractor is responsible to City for all warranty service, parts, and labor. Contractor is required to ensure that warranty work is performed at a facility acceptable to City and that services, parts, and labor are available and provided to meet City's schedules and deadlines. Contractor may establish a warranty service contract with an agency satisfactory to City instead of performing the warranty service itself. If Contractor is not an authorized service center and causes any damage to equipment being serviced, which results in the existing warranty being voided, Contractor will be liable for all costs of repairs to the equipment, or the costs of replacing the equipment with new equipment that meets City's operational needs.

5.8 Industry Standards. Contractor shall provide goods and/or services acceptable to City in strict conformance with the Contract. Contractor shall also provide goods and/or services in accordance with the standards customarily adhered to by an experienced and competent provider of the goods and/or services called for under this Contract using the degree of care and skill ordinarily exercised by reputable providers of such goods and/or services. Where approval by City, the Mayor, or other representative of City is required, it is understood to be general approval only and does not relieve Contractor of responsibility for complying with all applicable laws, codes, policies, regulations, and good business practices.

5.9 Records Retention and Examination. Contractor shall retain, protect, and maintain in an accessible location all records and documents, including paper, electronic, and computer records, relating to this Contract for five (5) years after receipt of final payment by City under this Contract. Contractor shall make all such records and documents available for inspection, copying, or other reproduction, and auditing by authorized representatives of City, including the Purchasing Agent or designee. Contractor shall make available all requested data and records at reasonable locations within City or County of San Diego at any time during normal business hours, and as often as City deems necessary. If records are not made available within the City or County of San Diego, Contractor shall pay City's travel costs to the location where the records are maintained and shall pay for all related travel expenses. Failure to make requested records available for inspection, copying, or other reproduction, or auditing by the date requested may result in termination of the Contract. Contractor must include this provision in all subcontracts made in connection with this Contract.

5.9.1 Contractor shall maintain records of all subcontracts entered into with all firms, all project invoices received from Subcontractors and Suppliers, all purchases of materials and services from Suppliers, and all joint venture participation. Records shall show name, telephone number including area code, and business address of each Subcontractor and Supplier, and joint venture partner, and the total amount actually paid to each firm. Project relevant records, regardless of tier, may be periodically reviewed by the City.

5.10 Quality Assurance Meetings. Upon City's request, Contractor shall schedule one or more quality assurance meetings with City's Contract Administrator to discuss Contractor's performance. If requested, Contractor shall schedule the first quality assurance meeting no later than eight (8) weeks from the date of commencement of work under the Contract. At the quality assurance meeting(s), City's Contract Administrator will provide Contractor with feedback, will note any deficiencies in Contract performance, and provide Contractor with an opportunity to address and correct such deficiencies. The total number of quality assurance meetings that may be required by City will depend upon Contractor's performance.

5.11 Duty to Cooperate with Auditor. The City Auditor may, in his sole discretion, at no cost to the City, and for purposes of performing his responsibilities under Charter section 39.2, review Contractor's records to confirm contract compliance. Contractor shall make reasonable efforts to cooperate with Auditor's requests.

5.12 Safety Data Sheets. If specified by City in the solicitation or otherwise required by this Contract, Contractor must send with each shipment one (1) copy of the Safety Data Sheet (SDS) for each item shipped. Failure to comply with this procedure will be cause for immediate termination of the Contract for violation of safety procedures.

5.13 Project Personnel. Except as formally approved by the City, the key personnel identified in Contractor's bid or proposal shall be the individuals who will actually complete the work. Changes in staffing must be reported in writing and approved by the City.

5.13.1 Criminal Background Certification. Contractor certifies that all employees working on this Contract have had a criminal background check and that said employees are clear of any sexual and drug related convictions. Contractor further certifies that all employees hired by Contractor or a subcontractor shall be free from any felony convictions.

5.13.2 Photo Identification Badge. Contractor shall provide a company photo identification badge to any individual assigned by Contractor or subcontractor to perform services or deliver goods on City premises. Such badge must be worn at all times while on City premises. City reserves the right to require Contractor to pay fingerprinting fees for personnel assigned to work in sensitive areas. All employees shall turn in their photo identification badges to Contractor upon completion of services and prior to final payment of invoice.

5.14 Standards of Conduct. Contractor is responsible for maintaining standards of employee competence, conduct, courtesy, appearance, honesty, and integrity satisfactory to the City.

5.14.1 Supervision. Contractor shall provide adequate and competent supervision at all times during the Contract term. Contractor shall be readily available to meet with the City. Contractor shall provide the telephone numbers where its representative(s) can be reached.

5.14.2 City Premises. Contractor's employees and agents shall comply with all City rules and regulations while on City premises.

5.14.3 Removal of Employees. City may request Contractor immediately remove from assignment to the City any employee found unfit to perform duties at the City. Contractor shall comply with all such requests.

5.15 Licenses and Permits. Contractor shall, without additional expense to the City, be responsible for obtaining any necessary licenses, permits, certifications, accreditations, fees and approvals for complying with any federal, state, county, municipal, and other laws, codes, and regulations applicable to Contract performance. This includes, but is not limited to, any laws or regulations requiring the use of licensed contractors to perform parts of the work.

5.16 Contractor and Subcontractor Registration Requirements. Prior to the award of the Contract or Task Order, Contractor and Contractor's subcontractors and suppliers must register with the City's web-based vendor registration and bid management system. The City may not award the Contract until registration of all subcontractors and suppliers is complete. In the event this requirement is not met within the time frame specified by the City, the City reserves the right to rescind the Contract award and to make the award to the next responsive and responsible proposer of bidder.

ARTICLE VI INTELLECTUAL PROPERTY RIGHTS

6.1 Rights in Data. If, in connection with the services performed under this Contract, Contractor or its employees, agents, or subcontractors, create artwork, audio recordings, blueprints, designs, diagrams, documentation, photographs, plans, reports, software, source code, specifications, surveys, system designs, video recordings, or any other original works of authorship, whether written or readable by machine (Deliverable Materials), all rights of Contractor or its subcontractors in the Deliverable Materials, including, but not limited to publication, and registration of copyrights, and trademarks in the Deliverable Materials, are the sole property of City. Contractor, including its employees, agents, and subcontractors, may not use any Deliverable Material for purposes unrelated to Contractor's work on behalf of the City without prior written consent of City. Contractor may not publish or reproduce any Deliverable Materials, for purposes unrelated to Contractor's work on behalf of the City, without the prior written consent of the City.

6.2 Intellectual Property Rights Assignment. For no additional compensation, Contractor hereby assigns to City all of Contractor's rights, title, and interest in and to the content of the Deliverable Materials created by Contractor or its employees, agents, or subcontractors, including copyrights, in connection with the services performed under this Contract. Contractor

shall promptly execute and deliver, and shall cause its employees, agents, and subcontractors to promptly execute and deliver, upon request by the City or any of its successors or assigns at any time and without further compensation of any kind, any power of attorney, assignment, application for copyright, patent, trademark or other intellectual property right protection, or other papers or instruments which may be necessary or desirable to fully secure, perfect or otherwise protect to or for the City, its successors and assigns, all right, title and interest in and to the content of the Deliverable Materials. Contractor also shall cooperate and assist in the prosecution of any action or opposition proceeding involving such intellectual property rights and any adjudication of those rights.

6.3 Contractor Works. Contractor Works means tangible and intangible information and material that: (a) had already been conceived, invented, created, developed or acquired by Contractor prior to the effective date of this Contract; or (b) were conceived, invented, created, or developed by Contractor after the effective date of this Contract, but only to the extent such information and material do not constitute part or all of the Deliverable Materials called for in this Contract. All Contractor Works, and all modifications or derivatives of such Contractor Works, including all intellectual property rights in or pertaining to the same, shall be owned solely and exclusively by Contractor.

6.4 Subcontracting. In the event that Contractor utilizes a subcontractor(s) for any portion of the work that comprises the whole or part of the specified Deliverable Materials to the City, the agreement between Contractor and the subcontractor shall include a statement that identifies the Deliverable Materials as a “works for hire” as described in the United States Copyright Act of 1976, as amended, and that all intellectual property rights in the Deliverable Materials, whether arising in copyright, trademark, service mark or other forms of intellectual property rights, belong to and shall vest solely with the City. Further, the agreement between Contractor and its subcontractor shall require that the subcontractor, if necessary, shall grant, transfer, sell and assign, free of charge, exclusively to City, all titles, rights and interests in and to the Deliverable Materials, including all copyrights, trademarks and other intellectual property rights. City shall have the right to review any such agreement for compliance with this provision.

6.5 Intellectual Property Warranty and Indemnification. Contractor represents and warrants that any materials or deliverables, including all Deliverable Materials, provided under this Contract are either original, or not encumbered, and do not infringe upon the copyright, trademark, patent or other intellectual property rights of any third party, or are in the public domain. If Deliverable Materials provided hereunder become the subject of a claim, suit or allegation of copyright, trademark or patent infringement, City shall have the right, in its sole discretion, to require Contractor to produce, at Contractor’s own expense, new non-infringing materials, deliverables or works as a means of remedying any claim of infringement in addition to any other remedy available to the City under law or equity. Contractor further agrees to indemnify, defend, and hold harmless the City, its officers, employees and agents from and against any and all claims, actions, costs, judgments or damages, of any type, alleging or threatening that any Deliverable Materials, supplies, equipment, services or works provided under this contract infringe the copyright, trademark, patent or other intellectual property or

proprietary rights of any third party (Third Party Claim of Infringement). If a Third Party Claim of Infringement is threatened or made before Contractor receives payment under this Contract, City shall be entitled, upon written notice to Contractor, to withhold some or all of such payment.

6.6 Software Licensing. Contractor represents and warrants that the software, if any, as delivered to City, does not contain any program code, virus, worm, trap door, back door, time or clock that would erase data or programming or otherwise cause the software to become inoperable, inaccessible, or incapable of being used in accordance with its user manuals, either automatically, upon the occurrence of licensor-selected conditions or manually on command. Contractor further represents and warrants that all third party software, delivered to City or used by Contractor in the performance of the Contract, is fully licensed by the appropriate licensor.

6.7 Publication. Contractor may not publish or reproduce any Deliverable Materials, for purposes unrelated to Contractor's work on behalf of the City without prior written consent from the City.

6.8 Royalties, Licenses, and Patents. Unless otherwise specified, Contractor shall pay all royalties, license, and patent fees associated with the goods that are the subject of this solicitation. Contractor warrants that the goods, materials, supplies, and equipment to be supplied do not infringe upon any patent, trademark, or copyright, and further agrees to defend any and all suits, actions and claims for infringement that are brought against the City, and to defend, indemnify and hold harmless the City, its elected officials, officers, and employees from all liability, loss and damages, whether general, exemplary or punitive, suffered as a result of any actual or claimed infringement asserted against the City, Contractor, or those furnishing goods, materials, supplies, or equipment to Contractor under the Contract.

ARTICLE VII INDEMNIFICATION AND INSURANCE

7.1 Indemnification. To the fullest extent permitted by law, Contractor shall defend (with legal counsel reasonably acceptable to City), indemnify, protect, and hold harmless City and its elected officials, officers, employees, agents, and representatives (Indemnified Parties) from and against any and all claims, losses, costs, damages, injuries (including, without limitation, injury to or death of an employee of Contractor or its subcontractors), expense, and liability of every kind, nature and description (including, without limitation, incidental and consequential damages, court costs, and litigation expenses and fees of expert consultants or expert witnesses incurred in connection therewith and costs of investigation) that arise out of, pertain to, or relate to, directly or indirectly, in whole or in part, any goods provided or performance of services under this Contract by Contractor, any subcontractor, anyone directly or indirectly employed by either of them, or anyone that either of them control. Contractor's duty to defend, indemnify, protect and hold harmless shall not include any claims or liabilities arising from the sole negligence or willful misconduct of the Indemnified Parties.

7.2 Insurance. Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by Contractor, his agents, representatives, employees or subcontractors.

Contractor shall provide, at a minimum, the following:

7.2.1 Commercial General Liability. Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury, and personal and advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.

7.2.2 Commercial Automobile Liability. Insurance Services Office Form Number CA 0001 covering Code 1 (any auto) or, if Contractor has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than \$1,000,000 per accident for bodily injury and property damage.

7.2.3 Workers' Compensation. Insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.

7.2.4 Professional Liability (Errors and Omissions). For consultant contracts, insurance appropriate to Consultant's profession, with limit no less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate.

If Contractor maintains broader coverage and/or higher limits than the minimums shown above, City requires and shall be entitled to the broader coverage and/or the higher limits maintained by Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to City.

7.2.5 Other Insurance Provisions. The insurance policies are to contain, or be endorsed to contain, the following provisions:

7.2.5.1 Additional Insured Status. The City, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of Contractor including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to Contractor's insurance (at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 if a later edition is used).

7.2.5.2 Primary Coverage. For any claims related to this contract, Contractor's insurance coverage shall be primary coverage at least as broad as ISO CG 20 01 04 13 as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by City, its officers, officials, employees, or volunteers shall be excess of Contractor's insurance and shall not contribute with it.

7.2.5.3 Notice of Cancellation. Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to City.

7.2.5.4 Waiver of Subrogation. Contractor hereby grants to City a waiver of any right to subrogation which the Workers' Compensation insurer of said Contractor may acquire against City by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

7.2.5.5 Claims Made Policies (applicable only to professional liability). The Retroactive Date must be shown, and must be before the date of the contract or the beginning of contract work. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, Contractor must purchase "extended reporting" coverage for a minimum of five (5) years after completion of work.

7.3 Self Insured Retentions. Self-insured retentions must be declared to and approved by City. City may require Contractor to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or City.

7.4 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-VI, unless otherwise acceptable to City.

City will accept insurance provided by non-admitted, "surplus lines" carriers only if the carrier is authorized to do business in the State of California and is included on the List of Approved Surplus Lines Insurers (LASLI list). All policies of insurance carried by non-admitted carriers are subject to all of the requirements for policies of insurance provided by admitted carriers described herein.

7.5 Verification of Coverage. Contractor shall furnish City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive Contractor's obligation to provide them. City reserves the right

to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

7.6 Special Risks or Circumstances. City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

7.7 Additional Insurance. Contractor may obtain additional insurance not required by this Contract.

7.8 Excess Insurance. All policies providing excess coverage to City shall follow the form of the primary policy or policies including but not limited to all endorsements.

7.9 Subcontractors. Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors. For CGL coverage, subcontractors shall provide coverage with a format at least as broad as the CG 20 38 04 13 endorsement.

ARTICLE VIII BONDS

8.1 Payment and Performance Bond. Prior to the execution of this Contract, City may require Contractor to post a payment and performance bond (Bond). The Bond shall guarantee Contractor's faithful performance of this Contract and assure payment to contractors, subcontractors, and to persons furnishing goods and/or services under this Contract.

8.1.1 Bond Amount. The Bond shall be in a sum equal to twenty-five percent (25%) of the Contract amount, unless otherwise stated in the Specifications. City may file a claim against the Bond if Contractor fails or refuses to fulfill the terms and provisions of the Contract.

8.1.2 Bond Term. The Bond shall remain in full force and effect at least until complete performance of this Contract and payment of all claims for materials and labor, at which time it will convert to a ten percent (10%) warranty bond, which shall remain in place until the end of the warranty periods set forth in this Contract. The Bond shall be renewed annually, at least sixty (60) days in advance of its expiration, and Contractor shall provide timely proof of annual renewal to City.

8.1.3 Bond Surety. The Bond must be furnished by a company authorized by the State of California Department of Insurance to transact surety business in the State of California and which has a current A.M. Best rating of at least "A-, VIII."

8.1.4 Non-Renewal or Cancellation. The Bond must provide that City and Contractor shall be provided with sixty (60) days' advance written notice in the event of non-renewal, cancellation, or material change to its terms. In the event of non-renewal, cancellation, or

material change to the Bond terms, Contractor shall provide City with evidence of the new source of surety within twenty-one (21) calendar days after the date of the notice of non-renewal, cancellation, or material change. Failure to maintain the Bond, as required herein, in full force and effect as required under this Contract, will be a material breach of the Contract subject to termination of the Contract.

8.2 Alternate Security. City may, at its sole discretion, accept alternate security in the form of an endorsed certificate of deposit, a money order, a certified check drawn on a solvent bank, or other security acceptable to the Purchasing Agent in an amount equal to the required Bond.

ARTICLE IX CITY-MANDATED CLAUSES AND REQUIREMENTS

9.1 Contractor Certification of Compliance. By signing this Contract, Contractor certifies that Contractor is aware of, and will comply with, these City-mandated clauses throughout the duration of the Contract.

9.1.1 Drug-Free Workplace Certification. Contractor shall comply with City's Drug-Free Workplace requirements set forth in Council Policy 100-17, which is incorporated into the Contract by this reference.

9.1.2 Contractor Certification for Americans with Disabilities Act (ADA) and State Access Laws and Regulations: Contractor shall comply with all accessibility requirements under the ADA and under Title 24 of the California Code of Regulations (Title 24). When a conflict exists between the ADA and Title 24, Contractor shall comply with the most restrictive requirement (i.e., that which provides the most access). Contractor also shall comply with the City's ADA Compliance/City Contractors requirements as set forth in Council Policy 100-04, which is incorporated into this Contract by reference. Contractor warrants and certifies compliance with all federal and state access laws and regulations and further certifies that any subcontract agreement for this contract contains language which indicates the subcontractor's agreement to abide by the provisions of the City's Council Policy and any applicable access laws and regulations.

9.1.3 Non-Discrimination Requirements.

9.1.3.1 Compliance with City's Equal Opportunity Contracting Program (EOCP). Contractor shall comply with City's EOCP Requirements. Contractor shall not discriminate against any employee or applicant for employment on any basis prohibited by law. Contractor shall provide equal opportunity in all employment practices. Prime Contractors shall ensure that their subcontractors comply with this program. Nothing in this Section shall be interpreted to hold a Prime Contractor liable for any discriminatory practice of its subcontractors.

9.1.3.2 Non-Discrimination Ordinance. Contractor shall not discriminate on the basis of race, gender, gender expression, gender identity, religion, national origin, ethnicity, sexual orientation, age, or disability in the solicitation, selection, hiring or treatment of

subcontractors, vendors or suppliers. Contractor shall provide equal opportunity for subcontractors to participate in subcontracting opportunities. Contractor understands and agrees that violation of this clause shall be considered a material breach of the Contract and may result in Contract termination, debarment, or other sanctions. Contractor shall ensure that this language is included in contracts between Contractor and any subcontractors, vendors and suppliers.

9.1.3.3 Compliance Investigations. Upon City's request, Contractor agrees to provide to City, within sixty calendar days, a truthful and complete list of the names of all subcontractors, vendors, and suppliers that Contractor has used in the past five years on any of its contracts that were undertaken within San Diego County, including the total dollar amount paid by Contractor for each subcontract or supply contract. Contractor further agrees to fully cooperate in any investigation conducted by City pursuant to City's Nondiscrimination in Contracting Ordinance. Contractor understands and agrees that violation of this clause shall be considered a material breach of the Contract and may result in Contract termination, debarment, and other sanctions.

9.1.4 Equal Benefits Ordinance Certification. Unless an exception applies, Contractor shall comply with the Equal Benefits Ordinance (EBO) codified in the San Diego Municipal Code (SDMC). Failure to maintain equal benefits is a material breach of the Contract.

9.1.5 Contractor Standards. Contractor shall comply with Contractor Standards provisions codified in the SDMC. Contractor understands and agrees that violation of Contractor Standards may be considered a material breach of the Contract and may result in Contract termination, debarment, and other sanctions.

9.1.6 Noise Abatement. Contractor shall operate, conduct, or construct without violating the City's Noise Abatement Ordinance codified in the SDMC.

9.1.7 Storm Water Pollution Prevention Program. Contractor shall comply with the City's Storm Water Management and Discharge Control provisions codified in Division 3 of Chapter 4 of the SDMC, as may be amended, and any and all applicable Best Management Practice guidelines and pollution elimination requirements in performing or delivering services at City owned, leased, or managed property, or in performance of services and activities on behalf of City regardless of location.

Contractor shall comply with the City's Jurisdictional Urban Runoff Management Plan encompassing Citywide programs and activities designed to prevent and reduce storm water pollution within City boundaries as adopted by the City Council on January 22, 2008, via Resolution No. 303351, as may be amended.

Contractor shall comply with each City facility or work site's Storm Water Pollution Prevention Plan, as applicable, and institute all controls needed while completing the services to minimize any negative impact to the storm water collection system and environment.

9.1.8 Service Worker Retention Ordinance. If applicable, Contractor shall comply with the Service Worker Retention Ordinance (SWRO) codified in the SDMC.

9.1.9 Product Endorsement. Contractor shall comply with Council Policy 000-41 concerning product endorsement which requires that any advertisement referring to City as a user of a good or service will require the prior written approval of the Mayor.

9.1.10 Business Tax Certificate. Unless the City Treasurer determines in writing that a contractor is exempt from the payment of business tax, any contractor doing business with the City of San Diego is required to obtain a Business Tax Certificate (BTC) and to provide a copy of its BTC to the City before a Contract is executed.

9.1.11 Equal Pay Ordinance. Unless an exception applies, Contractor shall comply with the Equal Pay Ordinance codified in San Diego Municipal Code sections 22.4801 through 22.4809. Contractor shall certify in writing that it will comply with the requirements of the Equal Pay Ordinance throughout the duration of the Contract.

9.1.11.1 Contractor and Subcontract Requirement. The Equal Pay Ordinance applies to any subcontractor who performs work on behalf of a Contractor to the same extent as it would apply to that Contractor. Contractor shall require subcontractors performing work for contractor under their contract with the City to certify compliance with the Equal Pay Ordinance in their written subcontracts.

9.1.11.2 Notice Requirement. Contractor must post a notice informing its employees of their rights under the Equal Pay Ordinance in their workplace or job site.

ARTICLE X CONFLICT OF INTEREST AND VIOLATIONS OF LAW

10.1 Conflict of Interest Laws. Contractor is subject to all federal, state and local conflict of interest laws, regulations, and policies applicable to public contracts and procurement practices including, but not limited to, California Government Code sections 1090, *et. seq.* and 81000, *et. seq.*, and the Ethics Ordinance, codified in the SDMC. City may determine that Contractor must complete one or more statements of economic interest disclosing relevant financial interests. Upon City's request, Contractor shall submit the necessary documents to City.

10.2 Contractor's Responsibility for Employees and Agents. Contractor is required to establish and make known to its employees and agents appropriate safeguards to prohibit employees from using their positions for a purpose that is, or that gives the appearance of being, motivated by the desire for private gain for themselves or others, particularly those with whom they have family, business or other relationships.

10.3 Contractor's Financial or Organizational Interests. In connection with any task, Contractor shall not recommend or specify any product, supplier, or contractor with whom

Contractor has a direct or indirect financial or organizational interest or relationship that would violate conflict of interest laws, regulations, or policies.

10.4 Certification of Non-Collusion. Contractor certifies that: (1) Contractor's bid or proposal was not made in the interest of or on behalf of any person, firm, or corporation not identified; (2) Contractor did not directly or indirectly induce or solicit any other bidder or proposer to put in a sham bid or proposal; (3) Contractor did not directly or indirectly induce or solicit any other person, firm or corporation to refrain from bidding; and (4) Contractor did not seek by collusion to secure any advantage over the other bidders or proposers.

10.5 Hiring City Employees. This Contract shall be unilaterally and immediately terminated by City if Contractor employs an individual who within the twelve (12) months immediately preceding such employment did in his/her capacity as a City officer or employee participate in negotiations with or otherwise have an influence on the selection of Contractor.

ARTICLE XI DISPUTE RESOLUTION

11.1 Mediation. If a dispute arises out of or relates to this Contract and cannot be settled through normal contract negotiations, Contractor and City shall use mandatory non-binding mediation before having recourse in a court of law.

11.2 Selection of Mediator. A single mediator that is acceptable to both parties shall be used to mediate the dispute. The mediator will be knowledgeable in the subject matter of this Contract, if possible.

11.3 Expenses. The expenses of witnesses for either side shall be paid by the party producing such witnesses. All other expenses of the mediation, including required traveling and other expenses of the mediator, and the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the parties, unless they agree otherwise.

11.4 Conduct of Mediation Sessions. Mediation hearings will be conducted in an informal manner and discovery will not be allowed. The discussions, statements, writings and admissions will be confidential to the proceedings (pursuant to California Evidence Code sections 1115 through 1128) and will not be used for any other purpose unless otherwise agreed by the parties in writing. The parties may agree to exchange any information they deem necessary. Both parties shall have a representative attend the mediation who is authorized to settle the dispute, though City's recommendation of settlement may be subject to the approval of the Mayor and City Council. Either party may have attorneys, witnesses or experts present.

11.5 Mediation Results. Any agreements resulting from mediation shall be memorialized in writing. The results of the mediation shall not be final or binding unless otherwise agreed to in writing by the parties. Mediators shall not be subject to any subpoena or liability, and their actions shall not be subject to discovery.

**ARTICLE XII
MANDATORY ASSISTANCE**

12.1 Mandatory Assistance. If a third party dispute or litigation, or both, arises out of, or relates in any way to the services provided to the City under a Contract, Contractor, its agents, officers, and employees agree to assist in resolving the dispute or litigation upon City's request. Contractor's assistance includes, but is not limited to, providing professional consultations, attending mediations, arbitrations, depositions, trials or any event related to the dispute resolution and/or litigation.

12.2 Compensation for Mandatory Assistance. City will compensate Contractor for fees incurred for providing Mandatory Assistance. If, however, the fees incurred for the Mandatory Assistance are determined, through resolution of the third party dispute or litigation, or both, to be attributable in whole, or in part, to the acts or omissions of Contractor, its agents, officers, and employees, Contractor shall reimburse City for all fees paid to Contractor, its agents, officers, and employees for Mandatory Assistance.

12.3 Attorneys' Fees Related to Mandatory Assistance. In providing City with dispute or litigation assistance, Contractor or its agents, officers, and employees may incur expenses and/or costs. Contractor agrees that any attorney fees it may incur as a result of assistance provided under Section 12.2 are not reimbursable.

**ARTICLE XIII
MISCELLANEOUS**

13.1 Headings. All headings are for convenience only and shall not affect the interpretation of this Contract.

13.2 Non-Assignment. Contractor may not assign the obligations under this Contract, whether by express assignment or by sale of the company, nor any monies due or to become due under this Contract, without City's prior written approval. Any assignment in violation of this paragraph shall constitute a default and is grounds for termination of this Contract at the City's sole discretion. In no event shall any putative assignment create a contractual relationship between City and any putative assignee.

13.3 Independent Contractors. Contractor and any subcontractors employed by Contractor are independent contractors and not agents of City. Any provisions of this Contract that may appear to give City any right to direct Contractor concerning the details of performing or providing the goods and/or services, or to exercise any control over performance of the Contract, shall mean only that Contractor shall follow the direction of City concerning the end results of the performance.

13.4 Subcontractors. All persons assigned to perform any work related to this Contract, including any subcontractors, are deemed to be employees of Contractor, and Contractor shall be directly responsible for their work.

13.5 Covenants and Conditions. All provisions of this Contract expressed as either covenants or conditions on the part of City or Contractor shall be deemed to be both covenants and conditions.

13.6 Compliance with Controlling Law. Contractor shall comply with all applicable local, state, and federal laws, regulations, and policies. Contractor's act or omission in violation of applicable local, state, and federal laws, regulations, and policies is grounds for contract termination. In addition to all other remedies or damages allowed by law, Contractor is liable to City for all damages, including costs for substitute performance, sustained as a result of the violation. In addition, Contractor may be subject to suspension, debarment, or both.

13.7 Governing Law. The Contract shall be deemed to be made under, construed in accordance with, and governed by the laws of the State of California without regard to the conflicts or choice of law provisions thereof.

13.8 Venue. The venue for any suit concerning solicitations or the Contract, the interpretation of application of any of its terms and conditions, or any related disputes shall be in the County of San Diego, State of California.

13.9 Successors in Interest. This Contract and all rights and obligations created by this Contract shall be in force and effect whether or not any parties to the Contract have been succeeded by another entity, and all rights and obligations created by this Contract shall be vested and binding on any party's successor in interest.

13.10 No Waiver. No failure of either City or Contractor to insist upon the strict performance by the other of any covenant, term or condition of this Contract, nor any failure to exercise any right or remedy consequent upon a breach of any covenant, term, or condition of this Contract, shall constitute a waiver of any such breach of such covenant, term or condition. No waiver of any breach shall affect or alter this Contract, and each and every covenant, condition, and term hereof shall continue in full force and effect without respect to any existing or subsequent breach.

13.11 Severability. The unenforceability, invalidity, or illegality of any provision of this Contract shall not render any other provision of this Contract unenforceable, invalid, or illegal.

13.12 Drafting Ambiguities. The parties acknowledge that they have the right to be advised by legal counsel with respect to the negotiations, terms and conditions of this Contract, and the decision of whether to seek advice of legal counsel with respect to this Contract is the sole responsibility of each party. This Contract shall not be construed in favor of or against either party by reason of the extent to which each party participated in the drafting of the Contract.

13.13 Amendments. Neither this Contract nor any provision hereof may be changed, modified, amended or waived except by a written agreement executed by duly authorized representatives of City and Contractor. Any alleged oral amendments have no force or effect. The Purchasing Agent must sign all Contract amendments.

13.14 Conflicts Between Terms. If this Contract conflicts with an applicable local, state, or federal law, regulation, or court order, applicable local, state, or federal law, regulation, or court order shall control. Varying degrees of stringency among the main body of this Contract, the exhibits or attachments, and laws, regulations, or orders are not deemed conflicts, and the most stringent requirement shall control. Each party shall notify the other immediately upon the identification of any apparent conflict or inconsistency concerning this Contract.

13.15 Survival of Obligations. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with this Contract, as well as all continuing obligations indicated in this Contract, shall survive, completion and acceptance of performance and termination, expiration or completion of the Contract.

13.16 Confidentiality of Services. All services performed by Contractor, and any sub-contractor(s) if applicable, including but not limited to all drafts, data, information, correspondence, proposals, reports of any nature, estimates compiled or composed by Contractor, are for the sole use of City, its agents, and employees. Neither the documents nor their contents shall be released by Contractor or any subcontractor to any third party without the prior written consent of City. This provision does not apply to information that: (1) was publicly known, or otherwise known to Contractor, at the time it was disclosed to Contractor by City; (2) subsequently becomes publicly known through no act or omission of Contractor; or (3) otherwise becomes known to Contractor other than through disclosure by City.

13.17 Insolvency. If Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the Contract, written notification of the bankruptcy to the Purchasing Agent and the Contract Administrator responsible for administering the Contract. This notification shall be furnished within five (5) days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of City contract numbers and contracting offices for all City contracts against which final payment has not been made. This obligation remains in effect until final payment is made under this Contract.

13.18 No Third Party Beneficiaries. Except as may be specifically set forth in this Contract, none of the provisions of this Contract are intended to benefit any third party not specifically referenced herein. No party other than City and Contractor shall have the right to enforce any of the provisions of this Contract.

13.19 Actions of City in its Governmental Capacity. Nothing in this Contract shall be interpreted as limiting the rights and obligations of City in its governmental or regulatory capacity.

City of San Diego
CONTRACTOR STANDARDS
Pledge of Compliance

The City of San Diego has adopted a Contractor Standards Ordinance (CSO) codified in section 22.3004 of the San Diego Municipal Code (SDMC). The City of San Diego uses the criteria set forth in the CSO to determine whether a contractor (bidder or proposer) has the capacity to fully perform the contract requirements and the business integrity to justify the award of public funds. This completed Pledge of Compliance signed under penalty of perjury must be submitted with each bid and proposal. If an informal solicitation process is used, the bidder must submit this completed Pledge of Compliance to the City prior to execution of the contract. All responses must be typewritten or printed in ink. If an explanation is requested or additional space is required, Contractors must provide responses on Attachment A to the Pledge of Compliance and sign each page. Failure to submit a signed and completed Pledge of Compliance may render a bid or proposal non-responsive. In the case of an informal solicitation or cooperative procurement, the contract will not be awarded unless a signed and completed Pledge of Compliance is submitted. A submitted Pledge of Compliance is a public record and information contained within will be available for public review except to the extent that such information is exempt from disclosure pursuant to applicable law.

By signing and submitting this form, the contractor is certifying, to the best of their knowledge, that the contractor and any of its Principals have not within a five (5) year period – preceding this offer, been convicted of or had a civil judgement rendered against them for commission of a fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) contract or subcontract.

“Principal” means an officer, director, owner, partner or a person having primary management or supervisory responsibilities within the firm. The Contractor shall provide immediate written notice to the Procurement Contracting Officer handling the solicitation, at any time prior to award should they learn that this Representations and Certifications was inaccurate or incomplete.

This form contains 10 pages, additional information may be submitted as part of *Attachment A*.

A. BID/PROPOSAL/SOLICITATION TITLE:

Solicitation Number 10089553-19-V for Cationic Polymer for the Public Utilities Water Filtration Plants

B. BIDDER/PROPOSER INFORMATION:

Polydyne Inc.		Polydyne Inc.	
Legal Name	Riceboro	DBA	31323
One Chemical Plant Rd.		Georgia	
Street Address	City	State	Zip
Boyd Stanley, Vice-President	(912) 880-2035	(912) 880-2078	
Contact Person, Title	Phone	Fax	

Provide the name, identity, and precise nature of the interest* of all persons who are directly or indirectly involved** in this proposed transaction (SDMC § 21.0103). Use additional pages if necessary.

* The precise nature of the interest includes:

- the percentage ownership interest in a party to the transaction,
- the percentage ownership interest in any firm, corporation, or partnership that will receive funds from the transaction,
- the value of any financial interest in the transaction,
- any contingent interest in the transaction and the value of such interest should the contingency be satisfied, and
- any philanthropic, scientific, artistic, or property interest in the transaction.

** Directly or indirectly involved means pursuing the transaction by:

- communicating or negotiating with City officers or employees,
- submitting or preparing applications, bids, proposals or other documents for purposes of contracting with the City, or
- directing or supervising the actions of persons engaged in the above activity.

Olawale Igbekoyi	Technical Sales Representative
Name Anaheim, CA	Title/Position Polydyne Inc.
City and State of Residence Technical Sales Representative for the City of San Diego	Employer (if different than Bidder/Proposer)
Interest in the transaction	
Rawlin Castro	Regional Sales Manager
Name San Francisco, CA	Title/Position Polydyne Inc.
City and State of Residence Regional Sales Manager for the Western United States	Employer (if different than Bidder/Proposer)
Interest in the transaction	
Boyd Stanley	Vice-President
Name Riceboro, GA	Title/Position Polydyne Inc.
City and State of Residence Vice-President of Polydyne Inc.	Employer (if different than Bidder/Proposer)
Interest in the transaction	
John Pittman	President
Name Riceboro, GA	Title/Position SNF Holding Company
City and State of Residence President of Polydyne Inc.	Employer (if different than Bidder/Proposer)
Interest in the transaction	
Mark Schlag	Vice-President, Assistant-Secretary, and Treasurer
Name Riceboro, GA	Title/Position SNF Holding Company
City and State of Residence Vice-President of Polydyne Inc.	Employer (if different than Bidder/Proposer)
Interest in the transaction	
Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	

Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	
Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	
Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	

C. OWNERSHIP AND NAME CHANGES:

1. In the past five ten (5) years, has your firm changed its name?
 Yes No

If **Yes**, use Attachment A to list all prior legal and DBA names, addresses, and dates each firm name was used. Explain the specific reasons for each name change.

2. Is your firm a non-profit?
 Yes No

If **Yes**, attach proof of status to this submission.

3. In the past five (5) years, has a firm owner, partner, or officer operated a similar business?
 Yes No

If **Yes**, use Attachment A to list names and addresses of all businesses and the person who operated the business. Include information about a similar business only if an owner, partner, or officer of your firm holds or has held a similar position in another firm.

D. BUSINESS ORGANIZATION/STRUCTURE:

Indicate the organizational structure of your firm. Fill in only one section on this page. Use Attachment A if more space is required.

Corporation Date incorporated: 08/21/95 State of incorporation: Delaware

List corporation's current officers: President: John Pittman
Vice Pres: Boyd Stanley, and Mark Schlag
Secretary: Christopher Gannon
Treasurer: Mark Schlag

Type of corporation: C Subchapter S

Is the corporation authorized to do business in California: **Yes** **No**

If **Yes**, after what date: 06/13/2000

Is your firm a publicly traded corporation? Yes No

If Yes, how and where is the stock traded? _____

If Yes, list the name, title and address of those who own ten percent (10 %) or more of the corporation's stocks:

Do the President, Vice President, Secretary and/or Treasurer of your corporation have a third party interest or other financial interests in a business/enterprise that performs similar work, services or provides similar goods? Yes No

If Yes, please use Attachment A to disclose.

Please list the following: Authorized Issued Outstanding

a. Number of voting shares:	_____	_____	_____
b. Number of nonvoting shares:	_____	_____	_____
c. Number of shareholders:	_____	_____	_____
d. Value per share of common stock:		Par	\$ _____
		Book	\$ _____
		Market	\$ _____

Limited Liability Company Date formed: _____ State of formation: _____

List the name, title and address of members who own ten percent (10%) or more of the company:

Partnership Date formed: _____ State of formation: _____

List names of all firm partners:

Sole Proprietorship Date started: _____

List all firms you have been an owner, partner or officer with during the past five (5) years. Do not include ownership of stock in a publicly traded company:

Joint Venture Date formed: _____

List each firm in the joint venture and its percentage of ownership:

Note: To be responsive, each member of a Joint Venture or Partnership must complete a separate *Contractor Standards form*.

E. FINANCIAL RESOURCES AND RESPONSIBILITY:

1. Is your firm preparing to be sold, in the process of being sold, or in negotiations to be sold?

Yes **No**

If **Yes**, use Attachment A to explain the circumstances, including the buyer's name and principal contact information.

2. In the past five (5) years, has your firm been denied bonding?

Yes **No**

If **Yes**, use Attachment A to explain specific circumstances; include bonding company name.

3. In the past five (5) years, has a bonding company made any payments to satisfy claims made against a bond issued on your firm's behalf or a firm where you were the principal?

Yes **No**

If **Yes**, use Attachment A to explain specific circumstances.

4. In the past five (5) years, has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

Yes **No**

If **Yes**, use Attachment A to explain specific circumstances.

5. Within the last five years, has your firm filed a voluntary petition in bankruptcy, been adjudicated bankrupt, or made a general assignment for the benefit of creditors?

Yes **No**

If **Yes**, use Attachment A to explain specific circumstances.

6. Are there any claims, liens or judgements that are outstanding against your firm?

Yes **No**

If **Yes**, please use Attachment A to provide detailed information on the action.

7. Please provide the name of your principal financial institution for financial reference. By submitting a response to this Solicitation Contractor authorizes a release of credit information for verification of financial responsibility.

Name of Bank: Bank of America

Point of Contact: Katherine B. Lockwood

Address: 22 Bull Street, Savannah, GA 31401

Phone Number: (980) 386-1336

8. By submitting a response to a City solicitation, Contractor certifies that he or she has sufficient operating capital and/or financial reserves to properly fund the requirements identified in the solicitation. At City's request, Contractor will promptly provide to City

a copy of Contractor's most recent balance sheet and/or other necessary financial statements to substantiate financial ability to perform.

9. In order to do business in the City of San Diego, a current Business Tax Certificate is required. Business Tax Certificates are issued by the City Treasurer's Office. If you do not have one at the time of submission, one must be obtained prior to award.

Business Tax Certificate No.: B2006009880 Year Issued: 2019

F. PERFORMANCE HISTORY:

1. In the past five (5) years, has your firm been found civilly liable, either in a court of law or pursuant to the terms of a settlement agreement, for defaulting or breaching a contract with a government agency?

Yes No

If **Yes**, use Attachment A to explain specific circumstances.

2. In the past five (5) years, has a public entity terminated your firm's contract for cause prior to contract completion?

Yes No

If **Yes**, use Attachment A to explain specific circumstances and provide principal contact information.

3. In the past five (5) years, has your firm entered into any settlement agreement for any lawsuit that alleged contract default, breach of contract, or fraud with or against a public entity?

Yes No

If **Yes**, use Attachment A to explain specific circumstances.

4. Is your firm currently involved in any lawsuit with a government agency in which it is alleged that your firm has defaulted on a contract, breached a contract, or committed fraud?

Yes No

If **Yes**, use Attachment A to explain specific circumstances.

5. In the past five (5) years, has your firm, or any firm with which any of your firm's owners, partners, or officers is or was associated, been debarred, disqualified, removed, or otherwise prevented from bidding on or completing any government or public agency contract for any reason?

Yes No

If **Yes**, use Attachment A to explain specific circumstances.

6. In the past five (5) years, has your firm received a notice to cure or a notice of default on a contract with any public agency?

Yes No

If **Yes**, use Attachment A to explain specific circumstances and how the matter resolved.

7. Performance References:

Please provide a minimum of three (3) references familiar with work performed by your firm which was of a similar size and nature to the subject solicitation within the last five (5) years.

Please note that any references required as part of your bid/proposal submittal are in addition to those references required as part of this form.

Company Name: City of Phoenix

Contact Name and Phone Number: Brian Fayle (602) 723-9542
Contact Email: brian.fayle@phoenix.gov
Address: 3030 West Dunlap Ave., Phoenix, AZ 85003
Contract Date: 01/25/13 - 02/28/20
Contract Amount: \$1,535,886.00 per year
Requirements of Contract: Supply of Dadmac

Company Name: New Orleans Sewerage and Water Board
Contact Name and Phone Number: Vincent Fouchi (504) 865-0405
Contact Email: vfouchi@swbno.org
Address: 8800 S. Claiborne St., New Orleans, LA 70165
Contract Date: 04/25/19 - 05/31/20 (Polydyne Inc. has been exclusive polymer supplier since 2015)
Contract Amount: \$742,500.00 per year
Requirements of Contract: Supply of Dadmac

Company Name: City of Topeka
Contact Name and Phone Number: Joey Filby (785) 368-2423
Contact Email: jfilby@topeka.org
Address: 3245 Water Works Drive, Topeka, KS 66603-3983
Contract Date: 04/12/19 - 06/30/20 (Polydyne Inc. has been exclusive polymer supplier since 2014)
Contract Amount: \$230,400.00 per year
Requirements of Contract: Supply of Dadmac

G. COMPLIANCE:

1. In the past five (5) years, has your firm or any firm owner, partner, officer, executive, or manager been criminally penalized or found civilly liable, either in a court of law or pursuant to the terms of a settlement agreement, for violating any federal, state, or local law in performance of a contract, including but not limited to, laws regarding health and safety, labor and employment, permitting, and licensing laws?
 Yes No

If **Yes**, use Attachment A to explain specific circumstances surrounding each instance. Include the name of the entity involved, the specific infraction(s) or violation(s), dates of instances, and outcome with current status.
2. In the past five (5) years, has your firm been determined to be non-responsible by a public entity?
 Yes No

If **Yes**, use Attachment A to explain specific circumstances of each instance. Include the name of the entity involved, the specific infraction, dates, and outcome.

H. BUSINESS INTEGRITY:

- 1. In the past five (5) years, has your firm been convicted of or found liable in a civil suit for making a false claim or material misrepresentation to a private or public entity?

Yes **No**

If **Yes**, use Attachment A to explain specific circumstances of each instance. Include the entity involved, specific violation(s), dates, outcome and current status.

- 2. In the past five (5) years, has your firm or any of its executives, management personnel, or owners been convicted of a crime, including misdemeanors, or been found liable in a civil suit involving the bidding, awarding, or performance of a government contract?

Yes **No**

If **Yes**, use Attachment A to explain specific circumstances of each instance; include the entity involved, specific infraction(s), dates, outcome and current status.

- 3. In the past five (5) years, has your firm or any of its executives, management personnel, or owners been convicted of a federal, state, or local crime of fraud, theft, or any other act of dishonesty?

Yes **No**

If **Yes**, use Attachment A to explain specific circumstances of each instance; include the entity involved, specific infraction(s), dates, outcome and current status.

- 4. Do any of the Principals of your firm have relatives that are either currently employed by the City or were employed by the City in the past five (5) years?

Yes **No**

If **Yes**, please disclose the names of those relatives in Attachment A.

I. BUSINESS REPRESENTATION:

- 1. Are you a local business with a physical address within the County of San Diego?

Yes **No**

- 2. Are you a certified Small and Local Business Enterprise certified by the City of San Diego?

Yes **No**

Certification # _____

- 3. Are you certified as any of the following:

- a. Disabled Veteran Business Enterprise Certification # _____
- b. Woman or Minority Owned Business Enterprise Certification # _____
- c. Disadvantaged Business Enterprise Certification # _____

J. WAGE COMPLIANCE:

In the past five (5) years, has your firm been required to pay back wages or penalties for failure to comply with the federal, state or local **prevailing, minimum, or living wage laws**? **Yes** **No** If **Yes**, use Attachment A to explain the specific circumstances of each instance. Include the entity involved, the specific infraction(s), dates, outcome, and current status.

By signing this Pledge of Compliance, your firm is certifying to the City that you will comply with the requirements of the Equal Pay Ordinance set forth in SDMC sections 22.4801 through 22.4809.

K. STATEMENT OF SUBCONTRACTORS & SUPPLIERS:

Please provide the names and information for all subcontractors and suppliers used in the performance of the proposed contract, and what portion of work will be assigned to each subcontractor. Subcontractors may not be substituted without the written consent of the City. Use Attachment A if additional pages are necessary. If no subcontractors or suppliers will be used, please write "Not Applicable."

Not Applicable

Company Name: _____

Address: _____

Contact Name: _____ Phone: _____ Email: _____

Contractor License No.: _____ DIR Registration No.: _____

Sub-Contract Dollar Amount: \$_____ (per year) \$_____ (total contract term)

Scope of work subcontractor will perform: _____

Identify whether company is a subcontractor or supplier: _____

Certification type (check all that apply): DBE DVBE ELBE MBE SLBE WBE Not Certified

Contractor must provide valid proof of certification with the response to the bid or proposal to receive participation credit.

Company Name: _____

Address: _____

Contact Name: _____ Phone: _____ Email: _____

Contractor License No.: _____ DIR Registration No.: _____

Sub-Contract Dollar Amount: \$_____ (per year) \$_____ (total contract term)

Scope of work subcontractor will perform: _____

Identify whether company is a subcontractor or supplier: _____

Certification type (check all that apply): DBE DVBE ELBE MBE SLBE WBE Not Certified

Contractor must provide valid proof of certification with the response to the bid or proposal to receive participation credit.

L. STATEMENT OF AVAILABLE EQUIPMENT:

A full inventoried list of all necessary equipment to complete the work specified may be a requirement of the bid/proposal submission.

By signing and submitting this form, the Contractor certifies that all required equipment included in this bid or proposal will be made available one week (7 days) before work shall commence. In instances where the required equipment is not owned by the Contractor, Contractor shall explain how the equipment will be made available before the commencement of work. The City of San

Diego reserves the right to reject any response, in its opinion, if the Contractor has not demonstrated he or she will be properly equipped to perform the work in an efficient, effective matter for the duration of the contract period.

M. TYPE OF SUBMISSION: This document is submitted as:

- Initial submission of *Contractor Standards Pledge of Compliance*
- Initial submission of *Contractor Standards Pledge of Compliance* as part of a Cooperative agreement
- Initial submission of *Contractor Standards Pledge of Compliance* as part of a Sole Source agreement
- Update of prior *Contractor Standards Pledge of Compliance* dated _____.

Complete all questions and sign below.

Under penalty of perjury under the laws of the State of California, I certify that I have read and understand the questions contained in this Pledge of Compliance, that I am responsible for completeness and accuracy of the responses contained herein, and that all information provided is true, full and complete to the best of my knowledge and belief. I agree to provide written notice to the Purchasing Agent within five (5) business days if, at any time, I learn that any portion of this Pledge of Compliance is inaccurate. Failure to timely provide the Purchasing Agent with written notice is grounds for Contract termination.

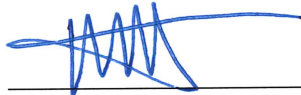
I, on behalf of the firm, further certify that I and my firm will comply with the following provisions of SDMC section 22.3004:

- (a) I and my firm will comply with all applicable local, State and Federal laws, including health and safety, labor and employment, and licensing laws that affect the employees, worksite or performance of the contract.
- (b) I and my firm will notify the Purchasing Agent in writing within fifteen (15) calendar days of receiving notice that a government agency has begun an investigation of me or my firm that may result in a finding that I or my firm is or was not in compliance with laws stated in paragraph (a).
- (c) I and my firm will notify the Purchasing Agent in writing within fifteen (15) calendar days of a finding by a government agency or court of competent jurisdiction of a violation by the Contractor of laws stated in paragraph (a).
- (d) I and my firm will notify the Purchasing Agent in writing within fifteen (15) calendar days of becoming aware of an investigation or finding by a government agency or court of competent jurisdiction of a violation by a subcontractor of laws stated in paragraph (a).
- (e) I and my firm will cooperate fully with the City during any investigation and to respond to a request for information within ten (10) working days.

Failure to sign and submit this form with the bid/proposal shall make the bid/proposal non-responsive. In the case of an informal solicitation, the contract will not be awarded unless a signed and completed *Pledge of Compliance* is submitted.

Mark Schlag, Vice-President

Name and Title



Signature

05/23/19

Date

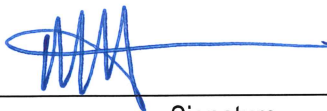
**City of San Diego
CONTRACTOR STANDARDS
Attachment "A"**

Provide additional information in space below. Use additional Attachment "A" pages as needed. Each page must be signed. Print in ink or type responses and indicate question being answered.

I have read the matters and statements made in this Contractor Standards Pledge of Compliance and attachments thereto and I know the same to be true of my own knowledge, except as to those matters stated upon information or belief and as to such matters, I believe the same to be true. I certify under penalty of perjury that the foregoing is true and correct.

Mark Schlag, Vice-President

Print Name, Title



Signature

05/23/19

Date

EQUAL OPPORTUNITY CONTRACTING PROGRAM (EOCP)

GOODS AND SERVICES CONTRACTOR REQUIREMENTS

I. City's Equal Opportunity Contracting Commitment.

The City of San Diego (City) promotes equal employment and subcontracting opportunities. The City is committed to ensuring that taxpayer dollars spent on public contracts are not paid to businesses that practice discrimination in employment or subcontracting. The City encourages all companies seeking to do business with the City to share this commitment. Contractors are encouraged to take positive steps to diversify and expand their subcontractor and supplier solicitation base and to offer opportunities to all eligible business firms.

Contractors must submit the required EOCP documentation indicated below with their bids. Contractors who fail to provide the required EOCP documentation are considered non-responsive.

II. Definitions.

Commercially Useful Function: a Small Local Business Enterprise or Emerging Local Business Enterprise (SLBE/ELBE) performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the SLBE/ELBE shall also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

To determine whether a SLBE/ELBE is performing a commercially useful function, an evaluation will be performed of the amount of work subcontracted, normal industry practices, whether the amount the SLBE/ELBE firm is to be paid under the contract is commensurate with the work it is actually performing and the SLBE/ELBE credit claimed for its performance of the work, and other relevant factors. Specifically, a SLBE/ELBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of meaningful and useful SLBE/ELBE participation, when in similar transactions in which SLBE/ELBE firms do not participate, there is no such role performed.

Disadvantaged Business Enterprise (DBE): a certified business that is (1) at least fifty-one (51%) owned by socially and economically Disadvantaged Individuals, or, in the case of a publicly owned business at least fifty-one percent (51%) of the stock is owned by one or more socially and economically Disadvantaged Individuals; and (2) whose daily business operations are managed and directed by one or more socially and economically disadvantaged owners. Disadvantaged Individuals include Black Americans, Hispanic Americans, Asian Americans, and other minorities, or individual found to be disadvantaged by the Small Business Administration pursuant to Section 8 of the Small Business Reauthorization Act.

Disabled Veteran: Disabled Veteran Business Enterprise (DVBE): a certified business that is (1) at least fifty-one percent (51%) owned by one or more Disabled Veterans; and (2) business operations must be managed and controlled by one or more Disabled Veterans. A Disabled Veteran is a veteran of the U.S. military, naval, or air service who resides in California and has a service-connected disability of at least 10% or more. The firm shall be certified by the State of California's Department of General Services, Office of Small and Minority Business.

Emerging Business Enterprise (EBE): a business whose gross annual receipts do not exceed the amount set by the City Manager, and which meets all other criteria set forth in regulations implementing the City's Small and Local Business Preference Program. The City Manager shall review the threshold amount for EBEs on an annual basis, and adjust as necessary to reflect changes in the marketplace.

Emerging Local Business Enterprise (ELBE): a Local Business Enterprise that is also an Emerging Business Enterprise.

Local Business Enterprise (LBE): a business that has both a principle place of business and a significant employment presence in the County of San Diego, and that has been in operation for twelve (12) consecutive months.

Minority Business Enterprise (MBE): a certified business that is (1) at least fifty-one percent (51%) owned by one or more minority individuals, or, in the case of a publicly owned business at least fifty-one percent (51%) of the stock is owned by one or more minority individuals; and (2) whose daily business operations are managed and directed by one or more minority owners. Minorities include the groups with the following ethnic origins: African, Asian Pacific, Asian Subcontinent, Hispanic, Native Alaskan, Native American, and Native Hawaiian.

Other Business Enterprise (OBE): any business which does not otherwise qualify as Minority, Woman, Disadvantaged, or Disabled Veteran Business Enterprise.

Principle Place of Business: a location wherein a business maintains a physical office and through which it obtains no less than fifty percent (50%) of its gross annual receipts.

Significant Employee Presence: no less than twenty-five percent (25%) of a business's total number of employees.

Small Business Enterprise (SBE): a business whose gross annual receipts do not exceed the amount set by the City Manager, and that meets all other criteria set forth in regulations implementing the City's Small and Local Business Preference Program. The City Manager shall review the threshold amount for SBEs on an annual basis, and adjust as necessary to reflect changes in the marketplace. A business certified as a DVBE by the State of California, and that has provided proof of such certification to the City Manager, shall be deemed to be an SBE.

Small Local Business Enterprise (SLBE): a Local Business Enterprise that is also a Small Business Enterprise.

Women Business Enterprise (WBE): a certified business that is (1) at least fifty-one percent (51 %) owned by a woman or women, or, in the case of a publicly owned business at least fifty-one percent (51%) of the stock is owned by one or more women; and (2) whose daily business operations are managed and directed by one or more women owners.

III. Disclosure of Discrimination Complaints.

As part of its bid, Contractor shall provide to the City a list of all instances within the past ten (10) years where a complaint was filed or pending against Contractor in a legal or administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors, or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken. (Attachment AA).

IV. Workforce Report and Equal Opportunity Outreach Plan.

- A. Work Force Report. Contractors shall submit with their bid a Work Force Report (WFR) for approval by the City. (Attachment BB). If the City determines that there are under representations when compared to County Labor Force Availability data, then the Contractor will also be required to submit an Equal Employment Opportunity Plan (EEOP) to the City for approval. Questions regarding the WFR should be directed to the Equal Opportunity Contracting Department.
- B. Duty to Comply with Equal Opportunity Outreach Plan. A Contractor for whom an EEOP has been approved by the City shall use best efforts to comply with that EEOP.

V. Small and Local Business Program Requirements.

The City has adopted a Small and Local Business Preference Program for goods and services contracts. The SLBE requirements are set forth in Council Policy 100-10. For goods, services, and consultant contracts in which the Purchasing Agent is required to advertise for sealed bids in the City's official newspaper:

- A. The City shall apply a bid discount in the way of:
 - a. Five percent (5%) discount off the bid price for SLBE or ELBE prime contractors; or
 - b. Five percent (5%) discount off the bid price for prime contractors achieving the voluntary goal of twenty percent (20%) for SLBE or ELBE subcontractor participation set forth in Subsection B below.

The discount will not apply if an award to the discounted bidder would result in a total contract cost of \$50,000 in excess of the low, non-discounted bid. In the event of a tie between a discounted bidder and non-

discounted bidder, the discounted bidder will be awarded the contract. The discount shall be taken off the total contract value, including contract option years.

- B. Include a voluntary subcontractor participation requirement of 20% of the total bid price for SLBE or ELBEs.

VI. Maintaining Participation Levels.

- A. Bid discounts are based on the bidder's level of participation proposed prior to the award of the goods, services, or consultant contract. Bidders are required to achieve and maintain the SLBE or ELBE participation levels throughout the duration of the goods, services, or consultant contract.
- B. If the City modifies the original specifications, the bidder shall make reasonable efforts to maintain the SLBE or ELBE participation for which the bid discount was awarded. The City must approve in writing a reduction in SLBE or ELBE participation levels.
- C. Bidder shall notify and obtain written approval from the City in advance of any reduction in subcontract scope, termination, or substitution for a designated SLBE or ELBE subcontractor.
- D. Bidder's failure to maintain SLBE or ELBE participation levels as specified in the goods, services, or consultant contract shall constitute a default and grounds for debarment under Chapter 2, Article 2, Division 8, of the San Diego Municipal Code.
- E. The remedies available to the City under Council Policy 100-10 are cumulative to all other rights and remedies available to the City.

VII. Certifications.

The City accepts certifications of MBE, WBE, DBE, or DVBE from the following certifying agencies:

- A. Current certification by the State of California Department of Transportation (CALTRANS) as DBE.
- B. Current MBE or WBE certification from the California Public Utilities Commission.
- C. DVBE certification is received from the State of California's Department of General Services, Office of Small and Minority Business.
- D. Current certification by the City of Los Angeles as DBE, WBE, or MBE.

Subcontractors' valid proof of certification status e.g., copy of MBE, WBE, DBE, or DVBE certification must be submitted with the ITB. MBE, WBE, DBE, or DVBE certifications are listed for informational purposes only.

VIII. List of Attachments.

- AA. Contractors Certification of Pending Actions
- BB. Work Force Report

AA. CONTRACTORS CERTIFICATION OF PENDING ACTIONS

As part of this Contract, the Contractor must provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against the Contractor in a legal or administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

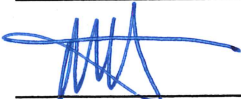
CHECK ONE BOX ONLY.

- The undersigned certifies that within the past 10 years the Contractor has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers.
- The undersigned certifies that within the past 10 years the Contractor has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers. A description of the status or resolution of that complaint, including any remedial action taken and the applicable dates is as follows:

DATE OF CLAIM	LOCATION	DESCRIPTION OF CLAIM	LITIGATION (Y/N)	STATUS	RESOLUTION/ REMEDIAL ACTION TAKEN

Contractor Name: Polydyne Inc.

Certified By Mark Schlag Title Vice-President



 Name

 Signature Date 05/23/19



EQUAL OPPORTUNITY CONTRACTING (EOC)

1200 Third Avenue, Suite 200 • San Diego, CA 92101

Phone: (619) 236-6000 • Fax: (619) 236-5904

BB. WORK FORCE REPORT

The objective of the *Equal Employment Opportunity Outreach Program*, San Diego Municipal Code Sections 22.3501 through 22.3517, is to ensure that contractors doing business with the City, or receiving funds from the City, do not engage in unlawful discriminatory employment practices prohibited by State and Federal law. Such employment practices include, but are not limited to unlawful discrimination in the following: employment, promotion or upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation, and selection for training, including apprenticeship. Contractors are required to provide a completed *Work Force Report (WFR)*.

**NO OTHER FORMS WILL BE ACCEPTED
CONTRACTOR IDENTIFICATION**

Type of Contractor: Construction Vendor/Supplier Financial Institution Lessee/Lessor
 Consultant Grant Recipient Insurance Company Other

Name of Company: Polydyne Inc.

ADA/DBA: _____

Address (Corporate Headquarters, where applicable): One Chemical Plant Rd.

City: Riceboro County: Liberty State: Georgia Zip: 31323

Telephone Number: (912) 880-2035 Fax Number: (912) 880-2078

Name of Company CEO: John Pittman

Address(es), phone and fax number(s) of company facilities located in San Diego County (if different from above):

Address: Same as above

City: _____ County: _____ State: _____ Zip: _____

Telephone Number: _____ Fax Number: _____ Email: _____

Type of Business: Corporation Type of License: Business Tax (included)

The Company has appointed: Joseph Naizer, VP of Human Resources

As its Equal Employment Opportunity Officer (EEOO). The EEOO has been given authority to establish, disseminate and enforce equal employment and affirmative action policies of this company. The EEOO may be contacted at:

Address: One Chemical Plant Rd., Riceboro, GA 31323

Telephone Number: (912) 880-2035 Fax Number: (912) 880-2078 Email: polybidpt@snfhc.com

- One San Diego County (or Most Local County) Work Force - Mandatory
- Branch Work Force *
- Managing Office Work Force


Check the box above that applies to this WFR.

*Submit a separate Work Force Report for all participating branches. Combine WFRs if more than one branch per county.

I, the undersigned representative of Polydyne Inc.

Liberty, Georgia (County) (State) hereby certify that information provided

herein is true and correct. This document was executed on this 23rd day of May, 2019



(Authorized Signature)

Mark Schlag, Vice-President

(Print Authorized Signature Name)

Polydyne Inc.

DATE: 05/23/19

NAME OF FIRM:

OFFICE(S) or BRANCH(ES): Riceboro, GA

COUNTY: Liberty

INSTRUCTIONS: For each occupational category, indicate number of males and females in every ethnic group. Total columns in row provided. Sum of all totals should be equal to your total work force. Include all those employed by your company on either a full or part-time basis. The following groups are to be included in ethnic categories listed in columns below:

- (1) Black or African-American
- (2) Hispanic or Latino
- (3) Asian
- (4) American Indian or Alaska Native
- (5) Native Hawaiian or Pacific Islander
- (6) White
- (7) Other race/ethnicity; not falling into other groups

Definitions of the race and ethnicity categories can be found on Page 4

ADMINISTRATION OCCUPATIONAL CATEGORY	(1) Black or African American		(2) Hispanic or Latino		(3) Asian		(4) American Indian/ Nat. Alaskan		(5) Pacific Islander		(6) White		(7) Other Race/ Ethnicity	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
Management & Financial	60	10	8	1	9	2	0	0	0	0	194	28	4	0
Professional	7	13	1	1	8	3	0	0	0	0	68	22	0	0
A&E, Science, Computer	7	0	4	1	8	4	0	0	0	0	66	11	1	0
Technical	16	18	1	5	1	4	1	0	0	0	33	16	0	1
Sales	0	1	3	0	4	0	0	0	0	0	62	2	1	0
Administrative Support	10	29	2	7	0	2	0	1	0	0	19	43	1	1
Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crafts	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Operative Workers	410	63	41	2	9	0	0	0	0	6	318	15	5	1
Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Laborers*	138	30	8	3	1	0	0	0	0	0	32	2	3	1

*Construction laborers and other field employees are not to be included on this page

Totals Each Column	648	164	68	20	40	15	1	1	0	6	793	139	15	4
--------------------	-----	-----	----	----	----	----	---	---	---	---	-----	-----	----	---

Grand Total All Employees

1914

Indicate by Gender and Ethnicity the Number of Above Employees Who Are Disabled:

Disabled	16	2	2	0	1	0	0	0	2	0	16	4	0	0
----------	----	---	---	---	---	---	---	---	---	---	----	---	---	---

Non-Profit Organizations Only:

Board of Directors														
Volunteers														
Artists														

NAME OF FIRM: Polydyne Inc. DATE: 05/23/19
 OFFICE(S) or BRANCH(ES): Riceboro, GA COUNTY: Liberty

INSTRUCTIONS: For each occupational category, indicate number of males and females in every ethnic group. Total columns in row provided. Sum of all totals should be equal to your total work force. Include all those employed by your company on either a full or part-time basis. The following groups are to be included in ethnic categories listed in columns below:

- (1) Black or African-American
- (2) Hispanic or Latino
- (3) Asian
- (4) American Indian or Alaska Native
- (5) Native Hawaiian or Pacific Islander
- (6) White
- (7) Other race/ethnicity; not falling into other groups

Definitions of the race and ethnicity categories can be found on Page 4

TRADE OCCUPATIONAL CATEGORY	(1) Black or African American		(2) Hispanic or Latino		(3) Asian		(4) American Indian/ Nat. Alaskan		(5) Pacific Islander		(6) White		(7) Other Race/ Ethnicity	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
Brick, Block or Stone Masons														
Carpenters														
Carpet, Floor & Tile Installers Finishers														
Cement Masons, Concrete Finishers														
Construction Laborers														
Drywall Installers, Ceiling Tile Inst														
Electricians														
Elevator Installers														
First-Line Supervisors/Managers														
Glaziers														
Helpers; Construction Trade														
Millwrights														
Misc. Const. Equipment Operators														
Painters, Const. & Maintenance														
Pipelayers, Plumbers, Pipe & Steam Fitters														
Plasterers & Stucco Masons														
Roofers														
Security Guards & Surveillance Officers														
Sheet Metal Workers														
Structural Metal Fabricators & Fitters														
Welding, Soldering & Brazing Workers														
Workers, Extractive Crafts, Miners														

Totals Each Column

Grand Total All Employees

Indicate By Gender and Ethnicity the Number of Above Employees Who Are Disabled:

Disabled	16	2	2	0	1	0	0	0	0	2	0	16	4	0	0
----------	----	---	---	---	---	---	---	---	---	---	---	----	---	---	---

Work Force Report

HISTORY

The Work Force Report (WFR) is the document that allows the City of San Diego to analyze the work forces of all firms wishing to do business with the City. We are able to compare the firm's work force data to County Labor Force Availability (CLFA) data derived from the United States Census. CLFA data is a compilation of lists of occupations and includes the percentage of each ethnicity we track (American Indian or Alaska Native, Asian, Black or African-American, Native Hawaiian or Pacific Islander, White, and Other) for each occupation. Currently, our CLFA data is taken from the 2010 Census. In order to compare one firm to another, it is important that the data we receive from the consultant firm is accurate and organized in the manner that allows for this fair comparison.

WORK FORCE & BRANCH WORK FORCE REPORTS

When submitting a WFR, especially if the WFR is for a specific project or activity, we would like to have information about the firm's work force that is actually participating in the project or activity. That is, if the project is in San Diego and the work force is from San Diego, we want a San Diego County Work Force Report¹. By the same token, if the project is in San Diego, but the work force is from another county, such as Orange or Riverside County, we want a Work Force Report from that county². If participation in a San Diego project is by work forces from San Diego County and, for example, from Los Angeles County and from Sacramento County, we ask for separate Work Force Reports representing your firm from each of the three counties.

MANAGING OFFICE WORK FORCE

Equal Opportunity Contracting may occasionally ask for a Managing Office Work Force (MOWF) Report. This may occur in an instance where the firm involved is a large national or international firm but the San Diego or other local work force is very small. In this case, we may ask for both a local and a MOWF Report^{4, 3}. In another case, when work is done only by the Managing Office, only the MOWF Report may be necessary.³

TYPES OF WORK FORCE REPORTS:

Please note, throughout the preceding text of this page, the superscript numbers one ¹, two ² & three ³. These numbers coincide with the types of work force report required in the example. See below:

- ¹ One San Diego County (or Most Local County) Work Force – Mandatory in most cases
- ² Branch Work Force *
- ³ Managing Office Work Force

**Submit a separate Work Force Report for all participating branches. Combine WFRs if more than one branch per county.*

RACE/ETHNICITY CATEGORIES

American Indian or Alaska Native – A person having origins in any of the peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.

Asian – A person having origins in any of the peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Black or African American – A person having origins in any of the Black racial groups of Africa.

Native Hawaiian or Pacific Islander – A person having origins in any of the peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

White – A person having origins in any of the peoples of Europe, the Middle East, or North Africa.

Hispanic or Latino – A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin.

Exhibit A: Work Force Report Job Categories – Administration

Refer to this table when completing your firm's Work Force Report form(s).

Management & Financial

Advertising, Marketing, Promotions, Public Relations, and Sales Managers
Business Operations Specialists
Financial Specialists
Operations Specialties Managers
Other Management Occupations
Top Executives

Professional

Art and Design Workers
Counselors, Social Workers, and Other Community and Social Service Specialists
Entertainers and Performers, Sports and Related Workers
Health Diagnosing and Treating Practitioners
Lawyers, Judges, and Related Workers
Librarians, Curators, and Archivists
Life Scientists
Media and Communication Workers
Other Teachers and Instructors
Postsecondary Teachers
Primary, Secondary, and Special Education School Teachers
Religious Workers
Social Scientists and Related Workers

Architecture & Engineering, Science, Computer

Architects, Surveyors, and Cartographers
Computer Specialists
Engineers
Mathematical Science Occupations
Physical Scientists

Technical

Drafters, Engineering, and Mapping Technicians
Health Technologists and Technicians
Life, Physical, and Social Science Technicians
Media and Communication Equipment Workers

Sales

Other Sales and Related Workers
Retail Sales Workers
Sales Representatives, Services
Sales Representatives, Wholesale and Manufacturing
Supervisors, Sales Workers

Administrative Support

Financial Clerks
Information and Record Clerks
Legal Support Workers

Material Recording, Scheduling, Dispatching, and Distributing Workers
Other Education, Training, and Library Occupations
Other Office and Administrative Support Workers
Secretaries and Administrative Assistants
Supervisors, Office and Administrative Support Workers

Services

Building Cleaning and Pest Control Workers
Cooks and Food Preparation Workers
Entertainment Attendants and Related Workers
Fire Fighting and Prevention Workers
First-Line Supervisors/Managers, Protective Service Workers
Food and Beverage Serving Workers
Funeral Service Workers
Law Enforcement Workers
Nursing, Psychiatric, and Home Health Aides
Occupational and Physical Therapist Assistants and Aides
Other Food Preparation and Serving Related Workers
Other Healthcare Support Occupations
Other Personal Care and Service Workers
Other Protective Service Workers
Personal Appearance Workers
Supervisors, Food Preparation and Serving Workers
Supervisors, Personal Care and Service Workers
Transportation, Tourism, and Lodging Attendants

Crafts

Construction Trades Workers
Electrical and Electronic Equipment Mechanics, Installers, and Repairers
Extraction Workers
Material Moving Workers
Other Construction and Related Workers
Other Installation, Maintenance, and Repair Occupations
Plant and System Operators
Supervisors of Installation, Maintenance, and Repair Workers
Supervisors, Construction and Extraction Workers
Vehicle and Mobile Equipment Mechanics,

Installers, and Repairers
Woodworkers

Operative Workers

Assemblers and Fabricators
Communications Equipment Operators
Food Processing Workers
Metal Workers and Plastic Workers
Motor Vehicle Operators
Other Production Occupations
Printing Workers
Supervisors, Production Workers
Textile, Apparel, and Furnishings Workers

Transportation

Air Transportation Workers
Other Transportation Workers
Rail Transportation Workers
Supervisors, Transportation and Material
Moving Workers
Water Transportation Workers

Laborers

Agricultural Workers
Animal Care and Service Workers
Fishing and Hunting Workers
Forest, Conservation, and Logging Workers
Grounds Maintenance Workers
Helpers, Construction Trades
Supervisors, Building and Grounds Cleaning
and Maintenance Workers
Supervisors, Farming, Fishing, and Forestry
Workers

Exhibit B: Work Force Report Job Categories-Trade

Brick, Block or Stone Masons

Brickmasons and Blockmasons
Stonemasons

Carpenters

Carpet, floor and Tile Installers and Finishers

Carpet Installers
Floor Layers, except Carpet, Wood and Hard
Tiles
Floor Sanders and Finishers
Tile and Marble Setters

Cement Masons, Concrete Finishers

Cement Masons and Concrete Finishers
Terrazzo Workers and Finishers

Construction Laborers

Drywall Installers, Ceiling Tile Inst

Drywall and Ceiling Tile Installers
Tapers

Electricians

Elevator Installers and Repairers

First-Line Supervisors/Managers

First-line Supervisors/Managers of
Construction Trades and Extraction Workers

Glaziers

Helpers, Construction Trade

Brickmasons, Blockmasons, and Tile and
Marble Setters
Carpenters
Electricians
Painters, Paperhangers, Plasterers and Stucco
Pipelayers, Plumbers, Pipefitters and
Steamfitters
Roofers
All other Construction Trades

Millwrights

Heating, Air Conditioning and Refrigeration
Mechanics and Installers
Mechanical Door Repairers
Control and Valve Installers and Repairers
Other Installation, Maintenance and Repair
Occupations

Misc. Const. Equipment Operators

Paving, Surfacing and Tamping Equipment
Operators
Pile-Driver Operators
Operating Engineers and Other Construction
Equipment Operators

Painters, Const. Maintenance

Painters, Construction and Maintenance
Paperhangers

Pipelayers and Plumbers

Pipelayers
Plumbers, Pipefitters and Steamfitters

Plasterers and Stucco Masons**Roofers****Security Guards & Surveillance Officers****Sheet Metal Workers****Structural Iron and Steel Workers****Welding, Soldering and Brazing Workers**

Welders, Cutter, Solderers and Brazers
Welding, Soldering and Brazing Machine
Setter, Operators and Tenders

Workers, Extractive Crafts, Miners

POST IN CONSPICUOUS PLACE OR KEEP ON PERSON

CITY OF SAN DIEGO * CERTIFICATE OF PAYMENT OF BUSINESS TAX

POLYDYNE INC
PO BOX 279
RICEBORO GA 31323-0279

Certificate Number: B2006009880
Business Name: POLYDYNE INC
Business Owner: POLYDYNE INC
Business Address: 1 CHEMICAL PLANT RD
RICEBORO GA 31323-0279

Primary Business Activity: OTH PROFESSIONAL/SCIENTIFIC/TECHNICAL SERVICE

Secondary Business Activity:

Effective Date: 01/01/2019
Expiration Date: 12/31/2019

PLEASE NOTIFY THE CITY TREASURER'S OFFICE IN WRITING OF ANY CHANGE IN OWNERSHIP OR ADDRESS - PLEASE SEE REVERSE SIDE FOR ADDITIONAL INFORMATION

BUSINESS FILE COPY

CITY OF SAN DIEGO
CERTIFICATE OF PAYMENT OF BUSINESS TAX
PO BOX 122289, SAN DIEGO, CA 92112-2289
1200 3RD AVENUE, MS 51T, SAN DIEGO, CA 92101
(619) 615-1500; FAX (619) 533-3272
www.sandiego.gov/treasurer

Certificate Number: B2006009880 PIN: BHSWL
Business Name: POLYDYNE INC
Business Owner: POLYDYNE INC
Business Address: 1 CHEMICAL PLANT RD
RICEBORO GA 31323-0279

Primary Business Activity: OTH PROFESSIONAL/SCIENTIFIC/TECHNICAL SERVICE

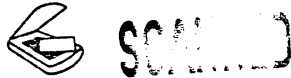
Secondary Business Activity:

Effective Date: 01/01/2019
Expiration Date: 12/31/2019

Mailing Address: POLYDYNE INC
PO BOX 279
RICEBORO GA 31323-0279



POLYDYNE INC
PO BOX 279
RICEBORO, GA 31323-0279



This certificate acknowledges payment of business taxes pursuant to the San Diego Municipal Code. This **is not** a License to do business within the City of San Diego in violation of any section of the Municipal Code or regulation adopted by the City Council including, but not limited to: Zoning restrictions; Land Use specifications as defined in Planned Districts, Redevelopment areas, Historical Districts, or Revitalization areas; Business Tax Regulations; Police Department Regulations; and Fire, Health or Sanitation Permits and Regulations.

This document is issued without verification that the payer is subject to or exempt from licensing by the State of California.

Payment of the required tax at the time or times due is for the term and purpose stated and is pursuant to City Ordinance. Please refer to delinquency information under "Notice".

NOTICE: It is the responsibility of the certificate holder to renew this certificate of payment of business tax within the proper time limits. Failure to do so, even if you have not received a renewal notice, will result in the assessment of a penalty. Please note your expiration date on this certificate above. The certificate holder is requested to notify the City Treasurer's Office upon sale or closure of the business, change of location, or change of business activity.

The tax or fees collected are **Not Refundable** unless collected as a direct result of an error by the City of San Diego.

This certificate is NOT transferable for a change in business ownership.

See reverse side.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/27/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

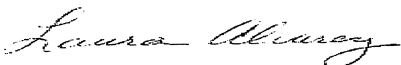
PRODUCER Frenkel & Company, an EPIC company 350 Hudson Street – 4 th Floor New York, NY 10014	Phone No.: (212) 488-0200 Fax No.: (212) 488-0220	CONTACT NAME: PHONE (A/C, No, Ext): E-MAIL ADDRESS:	FAX (A/C, No):
	INSURER(S) AFFORDING COVERAGE		NAIC #
INSURED Polydyne Inc. One Chemical Plant Road PO Box 250 Riceboro GA 31323	INSURER A: AIG SPECIALTY INSURANCE COMPANY		26883
	INSURER B: COMMERCE & INDUSTRY INSURANCE COMPANY		19410
	INSURER C: TRUMBULL INSURANCE COMPANY		27120
	INSURER D:		
	INSURER E:		
	INSURER F:		

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	X		EG14362834	12/31/2018	12/31/2019	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$500,000 MED EXP (Any one person) \$25,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	X		CA4691818	12/31/2018	12/31/2019	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTIONS\$			EGU18403155	12/31/2018	12/31/2019	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
C	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		X	10WNR30600	12/31/2018	12/31/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
The City and County of San Diego, its respective elected officials, officers, employees agents, and representatives are included as Additional Insureds on the Commercial General Liability and Automobile Liability policies as required by written with respects to operations by the Named Insured as their interest may appear and subject to the policy terms and conditions. Waiver of Subrogation is granted under the Workers Compensation coverage according to the terms as required by contract. The coverage is primary and non-contributory under the General Liability coverage as required by contract. 30 DAY CANCELLATION CLAUSE INCLUDED
RE: Bid No. 10089553-19-V Cationic Polymer

CERTIFICATE HOLDER City of San Diego 1200 Third Avenue, Suite 200 San Diego, CA 92101-4195	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISION AUTHORIZED REPRESENTATIVE 
----------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

WARRANTY

Polydyne Inc. guarantees that the chemical it proposes to furnish shall be of the highest quality and shall meet the intent of the specifications free from defects in material and workmanship.

If at any time there are questions about Polydyne Inc. products or if technical service is required, please contact one of the Polydyne representative listed below:

Olawale Igbekoi, Technical Sales Representative
Cellular Phone: (661) 803-2466

Rawlin Castro, Regional Sales Manager
Business Phone: (415) 218-6089

Customer Service:
(800) 848-7659
Monday – Friday, 8:00 a.m. – 5:00 p.m. E.S.T.



Mark Schlag
Vice-President

May 23, 2019
Date



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, June 26, 2019** at 12:15 a.m. Eastern Time. Please contact NSF 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 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 Designation****Product Function****Max Use**

Floperse 30 S	Well Cleaning Aid Well Drilling Aid	NA
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[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.

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-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 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	1mg/L
Clarifloc® A-3360	Coagulation & Flocculation	3mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3 mg/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

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

Polyamines[PY]

Trade Designation

Clarifloc® C-309P
 Clarifloc® C-319
 Clarifloc® C-329
 Clarifloc® C-339
 Clarifloc® C-349
 Clarifloc® C-359
 Clarifloc® C-379
 Clarifloc® C-389
 Clarifloc® C-399
 FLOQUAT™ FL 3050 PWG
 PRP 3050

Product Function

Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation

Max Use

10mg/L
 10mg/L
 10mg/L
 10mg/L
 10mg/L
 10mg/L
 10mg/L
 10mg/L
 10mg/L
 10mg/L
 10mg/L

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

Sodium Polyacrylate[1] [2]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Floperse 30	Distillation Antiscalant	20mg/L
	Reverse 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)**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
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	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

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**

Clarifloc® C-309D
 Clarifloc® C-309P
 Clarifloc® C-319
 Clarifloc® C-329
 Clarifloc® C-339
 Clarifloc® C-349
 Clarifloc® C-359
 Clarifloc® C-379
 Clarifloc® C-389
 Clarifloc® C-399
 FLOQUAT™ FL 3050 PWG
 PRP 3050

Product Function

Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation
 Coagulation & Flocculation

Max Use

32mg/L
 10mg/L
 20mg/L
 20mg/L
 10mg/L
 10mg/L
 10mg/L
 20mg/L
 10mg/L
 10mg/L
 10mg/L
 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 184

Processing time was 0 seconds

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POLYDYNE

CLARIFLOC C-308P POLYMER

PRODUCT BULLETIN

CHARACTERISTICS

CLARIFLOC C-308P polymer is a low molecular weight, homopolymer of diallyldimethylammonium chloride. It is an effective organic coagulant for water clarification in a variety of municipal applications. CLARIFLOC C-308P can partially or totally replace alum, ferric, lime and other inorganic coagulants, thereby reducing sludge volume. Unlike inorganics, it is effective over very wide pH ranges. CLARIFLOC C-308P is NSF certified for clarification of potable water at dosages up to 50 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear Amber Liquid
Density	8.6 Lbs/Gal
Freezing Point	25F. (-4C.)
Solubility	Totally Water Soluble

PREPARATION AND FEEDING

CLARIFLOC C-308P is a solution polymer which can be diluted to any convenient concentration for feeding. No special make-down or activation procedures are necessary. The polymer can be diluted in-line using a static mixer or in a stirred vessel. Diluting to 1-10% is highly recommended for all clarification applications because the coagulant will be distributed more efficiently into the system with less chance of overdose.

MATERIALS OF CONSTRUCTION

Crosslinked polyethylene, fiberglass, stainless steel and lined mild steel are the preferred materials of construction for bulk tanks. Unlined mild steel, black iron, galvanized steel, or copper are not recommended in any part of the polymer feed system. Stainless steel or PVC are the best choice for pump heads and feed lines.

MANUFACTURING SPECIFICATIONS

Specific Gravity	1.03-1.05
% Active	19.0-22.0
Product Viscosity	80-180 cPs
Product pH	5.0-7.0

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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HANDLING AND STORAGE

CLARIFLOC C-308P has a suggested in-plant storage life of one year in unopened drums. For best results, store at 40-90 F. Protect from freezing. If the product freezes, allow it to warm up in a heated area and thaw thoroughly before attempting to use it. For spills of CLARIFLOC C-308P, sprinkle sawdust or vermiculite over the spill area and sweep the material into approved chemical disposal containers.

PRODUCT SAFETY INFORMATION

CLARIFLOC C-308P is a mildly acidic product that can irritate the skin and eyes, so gloves, rubber apron and goggles should be worn during the handling of this product. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling information outlined in the POLYDYNE Material Safety Data Sheet. In the event of an emergency with CLARIFLOC C-308P, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC C-308P Polymer is shipped in 55 gallon drums containing 450 pounds net and 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

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

(800) 848-7659



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™ C-308P**

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:

SAFETY DATA SHEET

CLARIFLOC™ C-308P

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

This product is a mixture.

Hazardous components

Contains no reportable hazardous substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

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. Get medical attention immediately if symptoms occur.

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: Fire-fighting 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.

5.2. Special hazards arising from the substance or mixture*Hazardous decomposition products:*

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

5.3. Advice for fire-fighters*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***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

Do not contaminate 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.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:
None known.

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:

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.

SAFETY DATA SHEET**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

a) Appearance:	Clear to slightly yellow liquid.
b) Odour:	None.
c) Odour Threshold:	Not applicable.
d) pH:	3 - 7
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.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/litre @ 20°C
m) Relative density:	1.0 - 1.2
n) Solubility(ies):	Completely miscible.
o) Partition coefficient:	< 0
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
q) Decomposition temperature:	> 150°C
r) Viscosity:	See Technical Bulletin.
s) Explosive properties:	Not expected to be explosive based on the chemical structure.
t) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.

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

None known.

10.6. Hazardous decomposition products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO_x), carbon oxides (CO_x). Hydrogen cyanide (hydrocyanic acid).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

<i>Acute oral toxicity:</i>	LD50/oral/rat > 5000 mg/kg
<i>Acute dermal toxicity:</i>	LD50/dermal/rat > 5000 mg/kg.
<i>Acute inhalation toxicity:</i>	Testing by the inhalation route is inappropriate because exposure of humans via inhalation is unlikely: the substance has no vapour pressure and there is practically no exposure to inhalable aerosols.
<i>Skin corrosion/irritation:</i>	Not irritating.
<i>Serious eye damage/eye irritation:</i>	Slightly irritating.
<i>Respiratory/skin sensitisation:</i>	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.
<i>Mutagenicity:</i>	Not mutagenic.
<i>Carcinogenicity:</i>	By analogy with similar substances, this substance is not expected to be carcinogenic.
<i>Reproductive toxicity:</i>	By analogy with similar substances, this substance is not expected to be toxic for reproduction.
<i>STOT - Single exposure:</i>	No known effects.
<i>STOT - Repeated exposure:</i>	No known effect.
<i>Aspiration hazard:</i>	No hazards resulting from the material as supplied.

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
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L.
Acute toxicity to algae:	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.
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	EC0/activated sludge/0.5 hours = 1000 mg/L (OECD 209)
Effects on terrestrial organisms:	Exposure to soil is unlikely.
Sediment toxicity:	Exposure to sediment is unlikely.

12.2. Persistence and degradabilityInformation on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

12.3. Bioaccumulative potentialInformation on the product as supplied:

Not bioaccumulating.	
Partition co-efficient (Log Pow):	< 0
Bioconcentration factor (BCF):	~0

12.4. Mobility in soilInformation on the product as supplied:

SAFETY DATA SHEET

Exposure to soil is not to be expected.

Koc: ~0

12.5. Other adverse effects

None.

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.

Recycling:

Store containers and offer for recycling of material when in accordance with the local 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 on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SAFETY DATA SHEET

CLARIFLOC™ C-308P

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.

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:

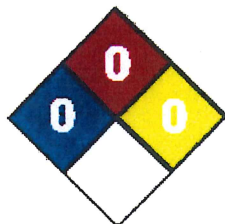
Not concerned.

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	0
Instability:	0

**HMIS:**

Health:	0
Flammability:	0
Physical Hazard:	0
PPE Code:	B

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

SECTION 5. Fire-fighting measures, 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

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: 17.01.a

LDCC010A

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.

SNF

POLYDYNE

CLARIFLOC C-318 POLYMER

PRODUCT BULLETIN

CHARACTERISTICS

CLARIFLOC C-318 polymer is a low molecular weight, homopolymer of diallyldimethylammonium chloride. It is an effective organic coagulant for water and wastewater clarification in a wide variety of municipal applications. CLARIFLOC C-318 can partially or totally replace alum, ferric, lime and other inorganic coagulants, thereby reducing sludge volume. Unlike inorganics, it is effective over very wide pH ranges. CLARIFLOC C-318 is NSF certified for clarification of potable water at dosages up to 25 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear Straw Colored Liquid
Density	8.7 - 9.1 lbs/gal
Freezing Point	25 F. (-4 C.)
Solubility	Totally Water Soluble

PREPARATION AND FEEDING

CLARIFLOC C-318 is a solution polymer which can be diluted to any convenient concentration for feeding. Fill the dilution tank with enough water to cover the mixing blades, add the desired quantity of CLARIFLOC C-318 and allow to mix while topping-off the tank with water. Totally automatic dilution equipment is available.

MATERIALS OF CONSTRUCTION

Crosslinked polyethylene, fiberglass, stainless steel and lined mild steel are the preferred materials of construction for bulk tanks. Unlined mild steel, black iron, galvanized steel, or copper are not recommended in any part of the polymer feed system. Stainless steel or PVC are the best choice for pump heads and feed lines.

MANUFACTURING SPECIFICATIONS

Specific Gravity	1.08 - 1.09
% Active	39.0 - 42.0
Product Viscosity	1,000 - 3,000 cPs
Product pH	5.0 - 7.0

HANDLING AND STORAGE

CLARIFLOC C-318 has a suggested in-plant storage life of one year in unopened drums. For best results, store at 40-90 F. Protect from freezing. If the product freezes, allow it to warm up in a heated area and thaw thoroughly before attempting to use it. For spills of CLARIFLOC C-318, sprinkle sawdust or vermiculite over the spill area and sweep the material into approved chemical disposal containers.

PRODUCT SAFETY INFORMATION

CLARIFLOC C-318 is a mildly acidic product that can irritate the skin and eyes, so gloves, rubber apron and goggles should be worn during the handling of this product. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling information outlined in the POLYDYNE Material Safety Data Sheet. In the event of an emergency with CLARIFLOC C-318, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC C-318 Polymer is shipped in 55 gallon drums containing 500 pounds net and in 275 gallon tote bins containing 2500 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from any location 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™ C-318**

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:

Hazard symbol(s): None.

Signal word: None.

Hazard statement(s): None.

Precautionary statement(s): None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

For explanation of abbreviations see Section 16.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable, this product is a mixture.

3.2. Mixtures

This product is a mixture.

Hazardous components

Contains no reportable hazardous substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

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. Get medical attention immediately if symptoms occur.

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: Fire-fighting 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.

5.2. Special hazards arising from the substance or mixture*Hazardous decomposition products:*

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

5.3. Advice for fire-fighters*Protective measures:*

Wear self-contained breathing apparatus and protective suit.

Other information:

Spills produce extremely slippery surfaces. Will not burn until water is evaporated.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures***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

Do not contaminate 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. Clean up promptly by scoop or vacuum.

Residues:

Soak up with inert absorbent material. 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.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Occupational exposure limits:
None known.

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:

Wash hands and face before breaks and immediately after handling the product. Wash hands before breaks and at the end of workday.

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:	Clear to slightly yellow liquid.
b) Odour:	None.
c) Odour Threshold:	Not applicable.
d) pH:	4 - 8
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.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/litre @ 20°C
m) Relative density:	1.0 - 1.2
n) Solubility(ies):	Completely miscible.
o) Partition coefficient:	< 0
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
q) Decomposition temperature:	> 150°C
r) Viscosity:	See Technical Bulletin.
s) Explosive properties:	Not expected to be explosive based on the chemical structure.
t) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.

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

None known.

10.6. Hazardous decomposition products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO_x), carbon oxides (CO_x). Hydrogen cyanide (hydrocyanic acid).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

<i>Acute oral toxicity:</i>	LD50/oral/rat > 5000 mg/kg
<i>Acute dermal toxicity:</i>	LD50/dermal/rat > 5000 mg/kg.
<i>Acute inhalation toxicity:</i>	Testing by the inhalation route is inappropriate because exposure of humans via inhalation is unlikely: the substance has no vapour pressure and there is practically no exposure to inhalable aerosols.
<i>Skin corrosion/irritation:</i>	Not irritating.
<i>Serious eye damage/eye irritation:</i>	Slightly irritating.
<i>Respiratory/skin sensitisation:</i>	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.
<i>Mutagenicity:</i>	By analogy with similar products, this product is not expected to be mutagenic.
<i>Carcinogenicity:</i>	By analogy with similar substances, this substance is not expected to be carcinogenic.
<i>Reproductive toxicity:</i>	By analogy with similar substances, this substance is not expected to be toxic for reproduction.
<i>STOT - Single exposure:</i>	No known effects.
<i>STOT - Repeated exposure:</i>	No known effect.
<i>Aspiration hazard:</i>	No hazards resulting from the material as supplied.

SECTION 12: Ecological information**12.1. Toxicity**Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours = 10 - 100 mg/L
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours = 10 - 100 mg/L.
Acute toxicity to algae:	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.
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	EC0/activated sludge/0.5 hours = 1000 mg/L (OECD 209)
Effects on terrestrial organisms:	Exposure to soil is unlikely.
Sediment toxicity:	Exposure to sediment is unlikely.

12.2. Persistence and degradabilityInformation on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

12.3. Bioaccumulative potentialInformation on the product as supplied:

Not bioaccumulating.	
Partition co-efficient (Log Pow):	< 0
Bioconcentration factor (BCF):	~0

12.4. Mobility in soil

Information on the product as supplied:

Exposure to soil is not to be expected.

Koc: ~0

12.5. Other adverse effects

None.

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.

Recycling:

Store containers and offer for recycling of material when in accordance with the local 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 on the inventory or are exempt from listing.

SAFETY DATA SHEET

CLARIFLOC™ C-318

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.

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.

GERCLA

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

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

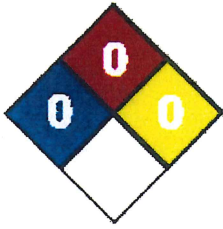
Not concerned.

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	0
Instability:	0

**HMIS:**

Health: 0
Flammability: 0
Physical Hazard: 0
PPE Code: B

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

SECTION 5. Fire-fighting measures, 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

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: 17.01.a

LDCC003A

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.

SNF

POLYDYNE

CLARIFLOC C-358 POLYMER

PRODUCT BULLETIN

CHARACTERISTICS

CLARIFLOC C-358 polymer is a **high** molecular weight, homopolymer of diallyldimethylammonium chloride. It is an effective organic coagulant for water and wastewater clarification in a wide variety of municipal applications. CLARIFLOC C-358 can partially or totally replace alum, ferric, lime and other inorganic coagulants, thereby reducing sludge volume. Unlike inorganics, it is effective over very wide pH ranges. CLARIFLOC C-358 is NSF certified for clarification of potable water at dosages up to 50 mg/L.

TYPICAL PROPERTIES

Physical Form	Amber Liquid
Density	8.5 - 8.9 lbs/gal
Freezing Point	-3 C.
Solubility	Totally Water Soluble

PREPARATION AND FEEDING

CLARIFLOC C-358 is a solution polymer which can be diluted to any convenient concentration for feeding. No special make-down or activation procedures are necessary. The polymer can be diluted in-line using a static mixer or in a stirred vessel. Diluting to 1-10% product is highly recommended for all clarification application because the coagulant will be distributed more efficiently into the system with less chance of overdose.

MATERIALS OF CONSTRUCTION

Crosslinked polyethylene, fiberglass, stainless steel and lined mild steel are the preferred materials of construction for bulk tanks. Unlined mild steel, black iron, galvanized steel, or copper are not recommended in any part of the polymer feed system. Stainless steel or PVC are the best choice for pump heads and feed lines.

MANUFACTURING SPECIFICATIONS

Specific Gravity	1.02 - 1.04
% Active	19.0 - 22.0
Product Viscosity	700 - 1,000 cPs
Product pH	5.0 - 7.0

HANDLING AND STORAGE

CLARIFLOC C-358 has a suggested in-plant storage life of six months in unopened drums. For best results, store at 40-90 F. Protect from freezing. If the product freezes, allow it to warm up in a heated area and thaw thoroughly before attempting to use it. For spills of CLARIFLOC C-358, sprinkle sawdust or vermiculite over the spill area and sweep the material into approved chemical disposal containers.

PRODUCT SAFETY INFORMATION

CLARIFLOC C-358 is a mildly acidic product that can irritate the skin and eyes, so gloves, rubber apron and goggles should be worn during the handling of this product. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling information outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with CLARIFLOC C-358, contact Chemtrecc anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC C-358 Polymer is shipped in 55 gallon drums containing 450 pounds net and in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from any location 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™ C-358**

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:

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

This product is a mixture.

Hazardous components

Contains no reportable hazardous substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

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. Get medical attention immediately if symptoms occur.

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: Fire-fighting 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.

5.2. Special hazards arising from the substance or mixture*Hazardous decomposition products:*

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

5.3. Advice for fire-fighters*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***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

Do not contaminate 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.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:
None known.

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:

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:	Clear to slightly yellow liquid.
b) Odour:	None.
c) Odour Threshold:	Not applicable.
d) pH:	3 - 7
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.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/litre @ 20°C
m) Relative density:	1.0 - 1.2
n) Solubility(ies):	Completely miscible.
o) Partition coefficient:	< 0
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
q) Decomposition temperature:	> 150°C
r) Viscosity:	See Technical Bulletin.
s) Explosive properties:	Not expected to be explosive based on the chemical structure.
t) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.

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

None known.

10.6. Hazardous decomposition products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

<i>Acute oral toxicity:</i>	LD50/oral/rat > 5000 mg/kg
<i>Acute dermal toxicity:</i>	LD50/dermal/rat > 5000 mg/kg.
<i>Acute inhalation toxicity:</i>	Testing by the inhalation route is inappropriate because exposure of humans via inhalation is unlikely: the substance has no vapour pressure and there is practically no exposure to inhalable aerosols.
<i>Skin corrosion/irritation:</i>	Not irritating.
<i>Serious eye damage/eye irritation:</i>	Slightly irritating.
<i>Respiratory/skin sensitisation:</i>	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.
<i>Mutagenicity:</i>	Not mutagenic.
<i>Carcinogenicity:</i>	By analogy with similar substances, this substance is not expected to be carcinogenic.
<i>Reproductive toxicity:</i>	By analogy with similar substances, this substance is not expected to be toxic for reproduction.
<i>STOT - Single exposure:</i>	No known effects.
<i>STOT - Repeated exposure:</i>	No known effect.
<i>Aspiration hazard:</i>	No hazards resulting from the material as supplied.

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
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L.
Acute toxicity to algae:	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.
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	EC0/activated sludge/0.5 hours = 1000 mg/L (OECD 209)
Effects on terrestrial organisms:	Exposure to soil is unlikely.
Sediment toxicity:	Exposure to sediment is unlikely.

12.2. Persistence and degradabilityInformation on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

12.3. Bioaccumulative potentialInformation on the product as supplied:

Not bioaccumulating.	
Partition co-efficient (Log Pow):	< 0
Bioconcentration factor (BCF):	~0

12.4. Mobility in soilInformation on the product as supplied:

Exposure to soil is not to be expected.

Koc: ~0

12.5. Other adverse effects

None.

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.

Recycling:

Store containers and offer for recycling of material when in accordance with the local 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 on the inventory or are exempt from listing.

US SARA Reporting Requirements:

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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.

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:

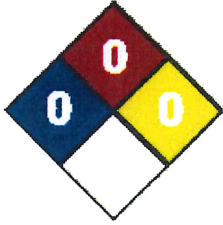
Not concerned.

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	0
Instability:	0

*HMIS:*

Health: 0
Flammability: 0
Physical Hazard: 0
PPE Code: B

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

SECTION 5. Fire-fighting measures, 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

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: 17.01.a

LDCC010A

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.