



June 9, 2021

City of Santa Fe
Attn: Purchasing Office
200 Lincoln Ave., Room 122
Santa Fe, NM 87505

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

To whom it may concern,

DuBois Chemicals, Inc. is in receipt of the above RFQ, due Thursday, June 10, 2021 at 2:00 PM. We are pleased to quote on your chemical requirements as listed on the attached Bid Sheet.

Should DuBois Chemicals Inc's offer be accepted, I have also included contact information for placing orders, as well as my contact information for any future bid or contract related issues/questions.

DuBois Chemicals, Inc. appreciates the opportunity to quote on your requirements, and we look forward to hearing the results of the bid opening. Please feel free to contact customer service or myself, should you have any questions.

Sincerely,

A handwritten signature in black ink that reads 'Laura Lanthier'.

Laura Lanthier
Manager, Municipal Bids & Contracts
Email: laura.lanthier@duboischchemicals.com
bids@duboischchemicals.com
Office: (208) 932-6615



Company Information 2021

Company Name: DuBois Chemicals, Inc.

Company Corporate Address: 3630 E. Kemper Rd.
Cincinnati, OH 45241

Phone Number: 1-800-438-2647
Fax Number: 1-800-543-1720

Federal Tax ID#: 80-0244824

State of Formation: Delaware

Payment Remit to Address: DuBois Chemicals, Inc.
2659 SOLUTION CENTER
CHICAGO, IL 60677-2066

Bids & Contracts: Mailing Address:
1717 E Fargo Ave
Nampa, ID 83687

Group Email: bids@duboischchemicals.com

Laura Lanthier
Manager, Municipal Bids & Contracts
Phone: 208-932-6615
Email: laura.lanthier@duboischchemicals.com

Betty Kendall-Jones
Municipal Bid Specialist
Phone: 385-549-0086
Email: Betty.Kendall-Jones@duboischchemicals.com

Fluorosilicic Acid Order Placement:

Email: FSA@duboischchemicals.com

Customer Service

Veronica Childers

Direct Line: 208-541-2812

Office: 208-466-8437

Fax: 208-466-8989

Veronica.Childers@duboischchemicals.com

Soda Ash and Other Chemical Order Placement:

Email: BHS_orders@duboischchemicals.com
and CS@duboischchemicals.com

Toll Free: (800) 999-8233

Fax: (801) 973-8838

Customer Service

Direct Line: 801-973-8232

Email: gia.frederick@duboischchemicals.com



WRITTEN CONSENT OF DUBOIS CHEMICALS, INC.

{THE "CORPORATION"}

The undersigned, constituting Chief Executive Officer who has been authorized by the Board of Directors of DuBois Chemicals, Inc. to sign, adopt and consent on behalf of the Board of Directors to the following action and resolution:

1. DuBois employment of Laura Lanthier, Manager Bids and Contracts of the Corporation and Betty Kendall-Jones, Municipal Bids Specialist.
2. Laura Lanthier and Betty Kendall-Jones are authorized to execute, for and on behalf of this Corporation, all bid documents and instruments as may be necessary to complete and enter into Governmental Contracts or Agreements.



Jeff W. Welsh
President and CEO

March 26, 2018
Date



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

Regarding Item 4: Zinc Orthophosphate:

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

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

Q. How many pounds are delivered per shipment?

A. 45,000 LBS

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

A. BDD uses about 20,000/year

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

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

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

A. Airgas

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

A. .013 per CF

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

A. Approximately 42,000 gallons

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

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

Q. Is the current liquid oxygen tank customer owned?

A. Yes

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

A. Yes



City of Santa Fe

Invitation to Bid

BDD Water Treatment Chemicals

Agreement

ITB # 21/39/B

NIGP Commodity Code: 885

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

Bidder MUST complete as applicable and sign the following in order for the Invitation to Bid (Bid) to be valid (type or print clearly):

Company Name: DuBois Chemicals, Inc. Address: Corporate: 3630 E. Kemper Rd., Sharonville, OH 45241
DBA (if applicable): n/a Bid Dept. 1717 E Fargo Ave, Nampa, ID 83687
Co. Email: bids@duboischchemicals.com
Co. Phone No.: 208-466-8437
NM Gross Receipts Tax # (CRS) n/a Federal Tax ID # 80-0244824

Payment terms: Net 30 (e.g., Net 30. Discount will not be considered in computing the low bid, see "Terms and Conditions")

F.O.B. Point must be Destination, unless otherwise indicated in the Invitation to Bid.

Contractor's Delivery: Delivery Included, 5-7 days(May be considered in the award)

Authorized Signature:  Print or type name: Laura Lanthier
Signatory Email: laura.lanthier@duboischchemicals.com Phone No: (208) 932-6615

* It is your responsibility as a bidder to ensure your bid is correct and accurate.

If you have any questions regarding this ITB please contact:

Procurement Specialist: **Jessica Chavez** Telephone: **505-629-8351** Email: **jjchavez@santafenm.gov**

No amendment will be issued later than three (3) days prior to the date for receipt of bids, except an amendment withdrawing the bids or one which includes postponement of the date for receipt of bids.

1 - Memorandum
Amendment No. X Dated: not dated Amendment No. Dated:

If applicable, Bidder acknowledges receipt of the following amendment(s): *only received memorandum*

Bids are subject to the "Terms and Conditions" shown on the attached pages of this document, and any additional bidding instructions or requirements. NOTE: if you decide not to bid, do not return this document.

Terms and Conditions
(Unless otherwise specified)

1. **General:** When the City of Santa Fe's Chief Procurement Officer (CPO) or his/her designee approves a purchase document in response to the bid, a binding contract is created.

2. **Variation in Quantity:** No variation in the quantity of any item called for by this order will be accepted unless such variation has been caused by conditions of loading, shipping, packing or allowances in manufacturing process and then only to the extent, if any, specified in this order.

3. **Assignment:**

a. Neither the order, nor any interest therein, nor any claim thereunder, shall be assigned or transferred by Contractor, except as set forth in Subparagraph 3b or as expressly authorized in writing by the CPO or his/her designee. No such assignment or transfer shall relieve Contractor from the obligations and liabilities under this order.

b. Contractor agrees that any and all claims for overcharge resulting from antitrust violations which are borne by the City of Santa Fe (City) as to goods, services, and materials purchased in connection with this bid are hereby assigned to the City.

4. **County Furnished Property:** City furnished property shall be returned to the City upon request in the same condition as received except for ordinary wear, tear and modifications ordered hereunder.

5. **Discounts:** Prompt payment discounts will not be considered in computing the low bid.

6. **Inspection:** Final inspection and acceptance will be made at the destination. Supplies rejected at the destination for nonconformance with specifications shall be removed at Contractor's risk and expense, promptly after notice of rejection.

7. **Inspection of Plant:** The CPO or his/her designee may inspect, at any reasonable time, the part of the Contractor's, or any subcontractor's plant or place of business, which is related to the performance of this contract.

8. **Commercial Warranty:** Contractor agrees that the supplies or services furnished under this order shall be covered by the most favorable commercial warranties Contractor gives for such to any customer for such supplies or services. The rights and remedies provided herein shall extend to the City and are in addition to and do not limit any rights afforded to the City by any other clause of this order. **Contractor agrees not to disclaim warranties of fitness for a particular purpose of merchantability.**

9. **Taxes:** Price shall not include state gross receipts tax or local option tax. Such tax or taxes shall be added at time of invoicing at current rate and shown as a separate item to be paid by the Requesting Department.

10. **Packing, Shipping, and Invoicing:**

a. The City's purchasing document number and Contractor's name, Requesting Department's name and location shall be shown on each packing and delivery ticket, package, bill of lading and other correspondence in connection with the shipments. The Requesting Departments' count will be accepted by the Contractor as final and conclusive on all shipments not accompanied by a packing ticket.

b. Contractor's invoice shall be submitted duly certified and shall contain the following information: order number, description of supplies or services, quantities, unit price and extended totals. Separate invoices shall be

rendered for each and every complete shipment.

c. Invoices must be submitted to the Requesting Department and NOT to the City Procurement Officer.

11. **Default:** The City reserves the right to cancel all or any part of this order without cost to the City, if Contractor fails to meet the provisions of this order and, except as otherwise provided herein, to hold Contractor liable for any excess cost occasioned by the City due to Contractor's default. Contractor shall not be liable for any excess costs if failure to perform the order arises out of causes beyond the control and without the fault or negligence of Contractor, such causes include but are not restricted to, acts of God or the public enemy, acts of the State or Federal Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather and defaults of subcontractors due to any of the above, unless the City shall determine that the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit Contractor to meet the required delivery scheduled. The rights of the City provided in this paragraph shall not be exclusive and are in addition to any other rights now being provided by law or under this order.

12. **Non-Collusion:** In signing this bid Contractor certifies he/she has not, either directly or indirectly, entered into action in restraint of free competitive bidding in connection with this offer submitted to the CPO or his/her designee.

13. **Nondiscrimination:** Contractor doing business with the City must be in compliance with the Federal Civil Rights Act of 1964 and Title VII of the Act (Rev. 1979) and the Americans with Disabilities Act of 1990 (Public Law 101-336).

14. **Penalties:** Sections 13-1-28 through 13-1-199 NMSA 1978, imposes civil and criminal penalties for its violation. In addition, the New Mexico criminal statutes impose felony penalties for bribes, gratuities, and kickbacks.

15. **Items:** All bid items are to be NEW and of most current production, unless otherwise specified.

16. **Payment for Purchases:** Except as otherwise agreed to: Pursuant to Section 13-1-158 NMSA 1978, within fifteen (15) days after the date the Requesting Department receives written notice from Contractor that the payment is requested for services, construction or items of tangible personal property delivered on site and received, the Requesting Department shall issue a written certification of complete or partial acceptance or rejection of the services, construction or items of tangible personal property. If the Requesting Department finds that the services, construction or items of tangible personal property are not acceptable, it shall, within thirty (30) days after the date of receipt or written notice from Contractor that payment is requested, provide to Contractor, a letter of exception explaining the defect or objection to the services, construction or delivered tangible personal property along with the details of how Contractor may proceed to provide remedial action. Upon certification by the Requesting Department that the services, construction, or delivered tangible personal property have been received and accepted, payment shall be tendered to Contractor within thirty (30) days after the date of certification. If payment is made by mail, the payment shall be deemed tendered on the date it is postmarked. After the thirtieth (30th) day from the date that written certification of acceptance is issued, late payment charges shall be paid on the unpaid balance due on the contract to Contractor at the rate of one and one half percent (1 ½%) per month. For purchases funded by state or federal grants to local public bodies, if the local public body has not received the funds from the federal or state funding agency, but has already certified that the services or items of tangible personal property have been received and accepted, payments shall be tendered to Contractor within five (5) working days of receipt of funds from that funding agency.

17. **Workers' Compensation:** Contractor agrees to comply with state laws and rules pertaining to Workers' Compensation benefits for its employees. If Contractor fails to comply with Workers' Compensation Act and applicable rules when required to do so, this Agreement may be terminated by the City.

19. **Contractor Personnel:** Personnel proposed in Contractor’s written bid to the Requesting Department are considered material to any work performed under this Agreement. Once a Purchase Order or contract has been executed, no changes of personnel will be made by Contractor without prior written consent of the Requesting Department. Replacement of any Contractor personnel, if approved, shall be with personnel of equal ability, experience, and qualifications. Contractor will be responsible for any expenses incurred in familiarizing the replacement personnel to insure their being productive to the project immediately upon receiving assignments. Approval of replacement personnel shall not be unreasonably withheld. The Requesting Department shall retain the right to request the removal of any of Contractor’s personnel at any time.

20. **Subcontracting:** Contractor shall not subcontract any portion of the Agreement without the prior written approval of the Requesting Department. No such subcontracting shall relieve the Contractor from its obligations and liabilities under this Agreement, nor shall any subcontracting obligate payment from the Requesting Department.

21. **Records and Audit:** Contractor shall maintain detailed time and expenditure records that indicate the date, time, nature, and cost of services rendered during this Agreement’s term and effect, and retain them for a period of three (3) years from the date of final payment under this Agreement. The records shall be subject to inspection by the Requesting Department and the City. The Requesting Department shall have the right to audit billings, both before and after payment. Payment for services under this Agreement shall not foreclose the right of the Requesting Department to recover excessive or illegal payments.

22. **Requesting Department:** Requesting Department is the Buckman Direct Diversion Board with the City of Santa Fe (“BDDDB”)

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

Important Bidding Information

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

The Bid is to be delivered to:

Submissions of all Invitation to Bids must be accomplished via email to: purchasing@santafenm.gov.

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

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

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

CPO contact information is:
Fran Dunaway, CPO, CNM
200 Lincoln Ave., Room 122
Santa Fe, NM 87505
fadunway@santafenm.gov

Bidders may contact ONLY the CPO or his/her designee regarding the terminology stated in the solicitation. Other City employees do not have the authority to respond on behalf of the City.

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

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

X **No financial interest** ___ **Yes financial interest**

If yes specify by name: _____

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Only written signed orders are valid under this Agreement.

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

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

Shipping and Billing Instructions

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

Termination

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

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

Amendment

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

Hold Harmless and Indemnification Clause:

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

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

Quantities:

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

Specifications:

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

Item 1: Ferric Chloride

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

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

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

LIQUID FERRIC CHLORIDE QUALITY

Total FeCl₃ by weight 28% to 47%

Total iron as Fe 9.6% to 16.2%

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

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

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

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

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

Item 2: Sodium Hydroxide

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

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

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

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

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

LIQUID SODIUM HYDROXIDE QUALITY

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

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

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

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

Delivery off-loading process will be by fork truck. **Empty used tote containers will have to be removed by Bidder and disposed of.**

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

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

OTHER POLYMER

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

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

1. Minimum solids feed rate: 120 gpm at 5.0 percent solids.
2. Maximum hydraulic loading rate: 350 gpm at 2.0 percent solids.
3. Maximum solids loading rate: 3,300 dry pounds per hour.
4. Minimum cake solids: 20 percent.
5. Minimum solids capture: 95 percent of the sludge feed total solids.
6. Maximum polymer dosage as active polymer: 12 pounds per dry ton of solids.
7. Minimum demonstration test run time at steady state: 2 hours continuous.

B. Percent Solids Capture = $(C/F) \times [(F-E)/(C-E)] \times 100$ Where C = Dewatered sludge total solids in mg/kg
F*= Feed TS in mg/kg, excluding any dilution flow from polymer solution flow; E = Centrate total suspended solids (TSS) in mg/kg, excluding any dilution from polymer solution flow.

14 * Feed refers to sludge feed excluding active polymer and polymer dilution water flow rates. A polymer may be selected from those demonstrated to be the most cost effective at meeting the above criteria. If selected, the polymer is to be ordered in 275 Gallon tote quantities. Deliveries to be made to BDD Water Treatment Facility plant site. Delivery off-loading process will be by fork truck.

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

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

POLYMER QUALITY

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

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

Item 4: Zinc Orthophosphate (ZOP)

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

ZOP solutions are miscible with water in all proportions.

The specific gravity of the solutions will vary depending on the ratio of Zn to PO₄³⁻ and can range from 1.20 to 1.70 at 720 F Zinc Orthophosphate solution is to be ordered in tanker truck load quantities. Deliveries to be made to BDD Water Treatment Facility plant site in tank trailers. Delivery off-loading process will be by truck powered air pressure only.

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

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

ZINC ORTHOPHOSATE QUALITY

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

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

Item 5: Calcium Thiosulfate Captor® Calcium Thiosulfate or Equal

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

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

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

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

CAPTOR Calcium Thiosulfate QUALITY

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

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

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

Item 6: Sulfuric Acid

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

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

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

SULFURIC ACID QUALITY

Total H₂SO₄% by weight 93%

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

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

Item 7: Liquid Oxygen (LOX)

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

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

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

LIQUID OXYGEN QUALITY

LOX shall have an oxygen content of at least 99.0 percent, by weight. The water content of the LOX shall not exceed a dew point of -80°F at the time of delivery.

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

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

Item 8: Hydrofluorosilicic Acid

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

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

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

HYDROFLUOROSILICIC ACID QUALITY

Total Hydrofluorosilicic acid % by weight 20% to 30%

Maximum free acid, expressed as HF, shall not exceed 1.0%.

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

Item 9: Sodium Hypochlorite

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

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

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

SODIUM HYPOCHLORITE QUALITY

Total sodium hypochlorite% 10% to 12.5%

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

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

Method of Award:

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

Term:

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

- Ferric Chloride
- Sodium Hydroxide
- Zinc Orthophosphate
- Sulfuric Acid
- Liquid Oxygen
- Sodium Hypochlorite
- Hydrofluorosilicic Acid
- Calcium Thiosulfate
- Polymer

General Conditions:

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

Escalation/Reduction Clause:

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

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

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

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

Contractors Note:

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

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

The remainder of this page was left blank intentionally

Price Schedule:

Bids shall include all costs of delivery to:

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

Item #	Description	Price Per LB	Price	Estimated QTY	Cost
Item 1	Ferric Chloride	Price per LB	No Bid	800,000 LBS	No Bid
Item 2	Sodium Hydroxide	Price per LB 25%	No Bid	250,000 LBS	No Bid
Item 3	Polymer	Price per LB	No Bid	25,000 LBS	No Bid
Item 4	Zinc Orthophosphate	Price per LBS	No Bid	30,000 LBS	No Bid
Item 5	Calcium Thiosulfate	Price per LB	No Bid	20,000 LBS	No Bid
Item 6	Sulfuric Acid	Price per LB	No Bid	15,000	No Bid
Item 7	Liquid Oxygen	Price per CU.FT	No Bid	10,000,000 CU. FT	No Bid
Item 8	Hydrofluorosilicic Acid	Price per LB	\$0.295/lb *	25,000 LBS	\$7,375.00
Item 9	Sodium Hypochlorite	Price per Gallon	No Bid	50,000 Gallons	No Bid

*23% Assay Adjusted basis, minimum order 3,000 gallons.


BIDDER'S:

DuBois Chemicals, Inc.

Firm

1717 E Fargo Ave, Nampa, ID 83687

Address


Authorized Signature

Laura Lanthier

Print Name

Manager, Municipal Bids & Contracts

Position

(208) 932-6615

Phone Number

(208) 466-8989

Fax Number

June 9, 2021

DATE

N.M. RESIDENT PREFERENCE NUMBER (if applicable): N/A

TWO COMPLETE COPIES OF THE BID SUBMITTAL IS REQUIRED



Subject: Product Information - Fluoride

To Whom It May Concern,

The Fluorosilicic Acid is manufactured by J.R. Simplot Company, located in Rock Springs, WY. Once produced the product is loaded into rubber-lined railcars and shipped to NSF terminals. The product then will be transloaded at those locations and shipped via dedicated rubber-lined tanker truck to customer delivery locations.

The manufacturing process is in accordance with AWWA Standard Specifications and is ANSI/NSF 60 Standard Certified. During the production of phosphoric acid fluoride gases are produced that are recovered as fluorosilicic acid (FSA or H_2SiF_6).

Fluorosilicic Acid is used to treat potable water to reduce the incidence of dental caries. Please see attached Certificate of Analysis and Product Data sheets as well as NSF Certifications.

DuBois Chemicals appreciates your business and looks forward to continuing to supply your chemical requirements. Please contact me if you need further clarification regarding this letter.

Sincerely,

A handwritten signature in cursive script that reads "Laura Lanthier".

Laura Lanthier

Manager, Municipal Bids & Contracts

Email: laura.lanthier@duboischemicals.com

Office: (208) 932-6615



July 6, 2020

Certificate of Authorization

This is to certify that DuBois Chemicals is the exclusive distributor authorized by the J. R. Simplot Company to sell Fluorosilicic Acid (FSA). This further will certify that the FSA manufactured by the J. R. Simplot Company is produced in accordance with AWWA standard B703a-13 and ANSI/NSF 60 standard specifications.

Sincerely,
J. R. Simplot Company

A handwritten signature in black ink, appearing to read "Jon Davidson".

Jon Davidson
Director Industrial, Silica and Feed



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Tuesday, February 16, 2021** 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?CompanyName=DuBois+Chemicals%2C+Inc%2E&ChemicalName=Fluorosilicic+Acid&PlantCountry=UNITED+STATES&>

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

DuBois Chemicals, Inc. formerly known as BHS Marketing LLC

3630 East Kemper Road
 Sharonville, OH 45241
 United States
 800-438-2647

[Visit this company's website \(http://www.duboischemicals.com\)](http://www.duboischemicals.com)

Facility : Fremont, CA

Fluorosilicic Acid

Trade Designation

Fluorosilicic Acid

Product Function

Fluoridation

Max Use

5mg/L

Facility : Vernon, CA

Fluorosilicic Acid

Trade Designation

Fluorosilicic Acid

Product Function

Fluoridation

Max Use

5mg/L

Facility : Mulberry, FL

Fluorosilicic Acid

Trade Designation

FSA

Product Function

Fluoridation

Max Use

5mg/L

Facility : Distribution Center - East St. Louis, IL

Fluorosilicic Acid

Trade Designation

FSA

Fluorosilicic Acid

Product Function

Fluoridation

Fluoridation

Max Use

5mg/L

5mg/L

Facility : Distribution Center - Seattle, WA

Fluosilicic Acid

Trade Designation

Fluosilicic Acid

Hydrofluosilicic Acid

Product Function

Fluoridation

Fluoridation

Max Use

6mg/L

6mg/L

Number of matching Manufacturers is 1

Number of matching Products is 7

Processing time was 1 seconds



The Public Health and Safety Organization

NSF Product and Service Listings

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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?CompanyName=jr+Simplot&ChemicalName=Fluorosilicic+Acid&>

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

J. R. Simplot Company

999 Main Street, Suite 1300

Boise, ID 83702

United States

208-336-2110

Visit this company's website (<http://www.simplot.com>)

Facility : Rock Springs, WY

Fluosilicic Acid

Trade Designation

Fluorosilicic Acid

Fluosilicic Acid

Hydrofluosilicic Acid

Product Function

Fluoridation

Fluoridation

Fluoridation

Max Use

5mg/L

5mg/L

5mg/L

Number of matching Manufacturers is 1

Number of matching Products is 3

Processing time was 0 seconds

FLUOROSILICIC ACID (FSA)

HYDROFLUOROSILIC ACID (HFS)

NSF⁽¹⁾ & AWWA⁽²⁾ CERTIFIED

CHEMICAL PROPERTIES	SPECIFICATION ⁽³⁾	TYPICAL ⁽³⁾
ASSAY	23.0% Min - 25.0% Max	24.0%
FLUORINE (F)	18.0% Min	19.0%
LEAD (Pb)	200.0	0.4
HYDROFLUORIC ACID (HF)	1.0% Max	0.5%
ARSENIC (As)	<40.0
IRON (Fe)	20.0
PHOSPHATE (P ₂ O ₅)	<200.0

PHYSICAL PROPERTIES

Chemical Formula (H₂SiF₆)

Specific Gravity @ 60°F & 24% FSA	1.23
Density (lbs/gal) @ 24% FSA	10.25
Boiling Point °F	222.5
Freezing Point °F	-4.0
Color (APHA)	<10
Visible Suspended Matter	None

SHIPPING POINT

Rock Springs, WY



Certified to
NSF/ANSI 60
Max Use
5 mg/L

⁽¹⁾Meets NSF/ANSI Standard 60

⁽²⁾Meets AWWA Standard B703-19

⁽³⁾ppm unless otherwise specified



Certificate of Analysis (COA)

SIMPLOT PHOSPHATES LLC
 515 South Hwy 430
 Rock Springs, WY 82901

DATE: **Thursday, February 11, 2021**

TO: [REDACTED] **C/O DuBois Chemical**

Product:	Fluorosilicic Acid (FSA)
Shipper Number	8142818
Rail Car Number	GATX 61408
Date Analyzed:	February 1, 2021
Other Information:	Release # 4726515.1

Analysis Name	Specification		Analysis
	Max	Min	
% Assay (H ₂ SiF ₆)	25%	23%	24.61
% HF	1.0%		0.42
% P2O5			0
Specific gravity @ 60°F			1.224
Lead (Pb) ppm			1.35
Arsenic ppm			5.24
Color (APHA)	200		5
Visible Suspended Matter			none



Certified to	Max. use:
NSF/ANSI 60	5 mg/L

Quentin Hardesty

Quentin Hardesty, Lab Manager

Meets ANSI / AWWA B703-19

Fluorosilicic Acid (FSA)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 03/25/2021 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Substance
 Substance name : Fluorosilicic Acid (FSA)
 Chemical name : Hydro Fluorosilicic Acid (HSA)
 Product code : M17200

1.2. Recommended use and restrictions on use

1.3. Supplier

JR Simplot Company
 P.O. Box 70013
 Boise, ID 83707
 T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Corrosive to metals, Category 1 H290 May be corrosive to metals.
 Acute toxicity (oral), Category 4 H302 Harmful if swallowed.
 Skin corrosion/irritation, Category 1 H314 Causes severe skin burns and eye damage.

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) : 

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H290 - May be corrosive to metals.
 H302 - Harmful if swallowed.
 H314 - Causes severe skin burns and eye damage.

Precautionary statements (GHS US) : P234 - Keep only in original container.
 P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312 - If swallowed: Call a poison center/doctor/... if you feel unwell
 P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
 P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 - Immediately call a poison center/doctor/...
 P321 - Specific treatment (see supplemental first aid instruction on this label)
 P330 - Rinse mouth.
 P363 - Wash contaminated clothing before reuse.
 P390 - Absorb spillage to prevent material damage.
 P405 - Store locked up.
 P406 - Store in corrosive resistant container with a resistant inner liner.
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

Fluorosilicic Acid (FSA)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Fluorosilicic Acid (FSA)

Name	Product identifier	%	GHS-US classification
Water	(CAS-No.) 7732-18-5	75 – 78	Not classified
hexafluorosilicic acid	(CAS-No.) 16961-83-4	23 – 25	Skin Corr. 1B, H314

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : If you feel unwell, seek medical advice. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor if you feel unwell. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

- Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.
- Symptoms/effects after skin contact : Burns.
- Symptoms/effects after eye contact : Serious damage to eyes.
- Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

Fluorosilicic Acid (FSA)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Absorb spillage to prevent material damage.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13. See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

Hygiene measures : Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Metals.

Packaging materials : Store in corrosive resistant container with a resistant inner liner.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Fluorosilicic Acid (FSA)	
No additional information available	
Water (7732-18-5)	
No additional information available	
hexafluorosilicic acid (16961-83-4)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	2.5 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

Fluorosilicic Acid (FSA)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Materials for protective clothing:

Use chemically protective clothing

Hand protection:

Acid proof gloves should be worn to prevent contact

Eye protection:

Splash proof goggles and full-face shield should be worn at all times. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear, colorless to pale straw liquid.
Colour	: Colourless
Odour	: characteristic
Odour threshold	: No data available
pH	: 1
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 105 °C
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

Fluorosilicic Acid (FSA)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.2. Chemical stability

Stable. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high temperatures. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Alkalis. Chlorites. Combustible solids and organic peroxides. Strong acids. Strong bases. metals. May be corrosive to metals.

10.6. Hazardous decomposition products

Corrosive fumes of fluorides. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Fluorosilicic Acid (FSA)	
LD50 oral rat	430 mg/kg
ATE US (oral)	430 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns.
pH: 1
Serious eye damage/irritation : Assumed to cause serious eye damage
pH: 1
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

hexafluorosilicic acid (16961-83-4)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.
Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. Before neutralisation, the product may represent a danger to aquatic organisms.

hexafluorosilicic acid (16961-83-4)	
LC50 fish 1	> 10 mg/l (96 h; Brachydanio rerio)
Threshold limit algae 1	10 mg/l (96 h; Scenedesmus quadricauda; Cell numbers)

Fluorosilicic Acid (FSA)

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12.2. Persistence and degradability

Fluorosilicic Acid (FSA)	
Persistence and degradability	Not established.
Water (7732-18-5)	
Persistence and degradability	Not established.
hexafluorosilicic acid (16961-83-4)	
Persistence and degradability	Biodegradability: not applicable. Reacts with water: release of toxic/harmful substances. No (test)data on mobility of the components available. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Fluorosilicic Acid (FSA)	
Bioaccumulative potential	Not established.
Water (7732-18-5)	
Bioaccumulative potential	Not established.
hexafluorosilicic acid (16961-83-4)	
Bioaccumulative potential	Not bioaccumulative. Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid unintentional release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Ecology - waste materials : Avoid unintentional release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1778 Fluorosilicic acid, 8, II
UN-No.(DOT) : UN1778
Proper Shipping Name (DOT) : Fluorosilicic acid
Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Packing group (DOT) : II - Medium Danger
Hazard labels (DOT) : 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

Fluorosilicic Acid (FSA)

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DOT Special Provisions (49 CFR 172.102)	: A6 - For combination packagings, if plastic inner packagings are used, they must be packed in tightly closed metal receptacles before packing in outer packagings. A7 - Steel packagings must be corrosion-resistant or have protection against corrosion. B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized. B15 - Packagings must be protected with non-metallic linings impervious to the lading or have a suitable corrosion allowance. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. N3 - Glass inner packagings are permitted in combination or composite packagings only if the hazardous material is free from hydrofluoric acid. N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material. T8 - 4 178.274(d)(2) Normal..... Prohibited TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. TP12 - This material is considered highly corrosive to steel.
DOT Packaging Exceptions (49 CFR 173.xxx)	: None
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 30 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information	: No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Air transport

SECTION 15: Regulatory information

15.1. US Federal regulations

Fluorosilicic Acid (FSA)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

hexafluorosilicic acid (16961-83-4)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Fluorosilicic Acid (FSA)

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Component	State or local regulations
hexafluorosilicic acid(16961-83-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

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Other information : None.

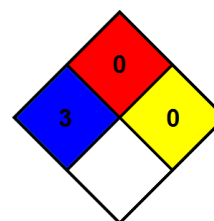
Full text of H-statements:

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

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