



March 7, 2018

REQUEST FOR PROPOSAL

NOTICE TO BIDDERS

Sealed proposals will be received by the Board of Water and Light (BWL) up to **2:00 P.M., local time, Wednesday, 03/21/18**, for furnishing:

Mid-Michigan Bulk Water Chemicals Consortium 2018

Proposals must be in full accordance with the enclosed Specification.

Proposals may be submitted via hard copy or electronic format. If submitting hard copy proposals, please submit two (2) signed BWL Proposal Form(s) with attachments and supplemental information to the **Board of Water and Light, Attn: Cathy Davila, Purchasing and Warehousing Department, 1232 Haco Dr, Lansing, Michigan 48910**. Do not include copies of the other BWL RFP documents in your proposal package. The proposal package shall be marked on the outside of the cover with:

- (a) The Bidder's name;
- (b) The title of the Specification;
- (c) Attention: Rachelle Hall, Board of Water and Light;

Electronic copies shall be in a non-protected, Adobe pdf format and e-mailed to sealedbids@lbwl.com. For ease of identification, enter "**(your company name) Chemical Consortium Bid**" in the subject line of your e-mail proposal. You will receive an automatic reply to your submittal which confirms the BWL has received your emailed message.

The BWL reserves the right to reject any or all proposals, waive irregularities or technicalities in any proposal, and accept any proposal in whole or in part, which in the opinion of the BWL, is in its best interest. The BWL does not limit the methods or factors to be used for evaluation.

Questions regarding this RFP will be accepted through **Wednesday, 3/14/2018**. Responses to these questions will be issued to all bidders via addenda to this RFP (reference Article 6 in the enclosed Instruction to Bidders). Direct all questions concerning this Request for Proposal via email to **Cathy Davila** at catherine.davila@lbwl.com.

Sincerely,

BOARD OF WATER AND LIGHT

Cathy Davila
Purchasing & Warehousing Department
(517) 702-6288
(517) 702-6042 Fax
catherine.davila@lbwl.com



INSTRUCTIONS TO BIDDERS
Mid-Michigan Bulk Water Chemical Consortium 2018

1. THE REQUEST FOR PROPOSAL CONSISTS OF THE FOLLOWING:

- (a) Notice to Bidders;
- (b) Instructions to Bidders;
- (c) Addenda, if issued;
- (d) Scope of Work / Specifications, including
 - (i) Special Requirements;
 - (ii) Drawings and List of Drawings.
- (e) Proposal Form;
- (f) Sworn and Notarized Affidavit of Compliance - Iran Economic Sanctions Act; and
- (g) Terms and Conditions for Consulting Services.

2. PROPOSAL SECURITY

N/A

3. TERMS AND CONDITIONS

Do not submit BIDDER's standard terms and conditions as a replacement to the BWL's Standard Terms and Conditions. BIDDER shall submit their proposal based upon the BWL's Standard Terms and Conditions as attached. BIDDER may request clarifications, tender exceptions consistent with Section 8 (or provide alternative language that corresponds to a tendered exception as provided in Section 8) to the BWL's Standard Terms and Conditions. Exceptions to the BWL's Standard Terms and Conditions must be noted on the Proposal Form in the space provided. Wholesale rejection of the BWL's Standard Terms and Conditions, as well as replacing with BIDDER'S standard terms and conditions will not receive consideration and result in a rejection in BIDDER'S proposal in its entirety. Further, proposals which are submitted and contingent upon BIDDER'S standard terms and conditions will be rejected.

4. BIDDER'S RESPONSIBILITY

It shall be the BIDDER'S responsibility to be familiar with the Proposal Documents and with the BWL, scope of work, and conditions that are likely to be encountered. BIDDER shall visit the site and specific areas on the site wherein the Work will be performed.

Any failure by the successful BIDDER to familiarize itself with conditions likely to be encountered, to acquaint itself with the available information, or to attend any meeting of BIDDERS shall not relieve the BIDDER from responsibility for providing the specified equipment, materials, and service. A failure to comply with this requirement does not constitute grounds for extra compensation over the pricing stated in the BIDDER'S proposal.

BIDDER shall be prepared to make a presentation at the BWL's request on its proposal and to answer questions.

5. AVAILABILITY OF LABOR AND MATERIALS

The BWL will not furnish any labor, facilities, services, utilities, materials, equipment or supplies unless specifically stated in the Proposal Documents.

BIDDER shall assess and determine the availability of necessary labor and the prevailing wages applicable to that workforce. In addition, BIDDER shall assess and determine the availability of materials and equipment necessary to fulfill the contract in a complete and timely manner. The BWL will not honor any claim for additional cost premised on the unavailability of materials or equipment, shortage of labor, or unexpected wage rates.

6. ADDENDA

The BWL will clarify any questions or correct the Request for Proposal by the issuance of an Addendum to all BIDDERS.

Each BIDDER shall acknowledge receipt of each Addendum by filling in the blank space provided on the Proposal Form.

7. DRAWINGS

N/A

8. PREPARATION OF PROPOSAL FORM

The Proposal Form is included in the Proposal Documents. BIDDER shall prepare proposals and submit them as stated in the Notice to Bidders.

Proposals must be prepared in full accordance with the Proposal Documents. The proposal price(s) stated on the Proposal Form must include all cost provisions of the complete Scope of Work. If the BIDDER chooses to submit an alternate or take an exception to any provision contained in the Proposal Documents, the alternate or exception must be specifically stated in BIDDER'S proposal, must reference the objectionable article of the Proposal Documents, and must propose alternate language or alternate Work. Any exception to the Proposal Documents, including any exception to the BWL's Standard Terms and Conditions must be raised in BIDDER'S proposal as exceptions provided subsequently will not be considered. Once a purchase order has been issued, and the Acknowledgement returned, a binding contract exists between the parties and further negotiation of terms is not permitted.

Proposals received after the time and date for receipt of proposals will not be accepted. The BIDDER is responsible for timely delivery of the Proposal at the designated location and time for receipt of Proposals.

The Proposal must be signed with the full name and address of the BIDDER. Proposals received without signature will not be accepted. If the BIDDER is a co-partnership, the firm name and signature of all parties are required. If the BIDDER is a corporation, full corporate name, signature of authorized official is required. BIDDER shall certify that the person who signs the proposal is empowered to do so by the corporation. Such certificate shall be up-to-date and current at time of the Proposal Form submittal.

A proposal may not be modified, withdrawn or canceled unilaterally by the BIDDER for a period of sixty (60) days following the time and date designated for the receipt of Proposals, and BIDDER so agrees in submitting the Proposal. A proposal submission is a confirmation by the BIDDER that it is prepared to commence and complete the various stages of the Work as described in the Proposal Documents.

Expenses for developing and presenting proposals shall be the responsibility of the BIDDER. It is the BIDDER'S responsibility to ensure that no conflict of interest or other ethical concern precludes the BWL from considering BIDDER'S proposal.

9. SUBSTITUTION

Under certain circumstances, the Proposal Documents may permit substitution of products. Those areas where substitution is permitted will be designated with the qualifying phrase or equal as may be approved by the BWL REPRESENTATIVE. If BIDDER would like to substitute a product, BIDDER must make a proposal including the products specified in the Proposal Documents AND an alternate proposal including the proposed substitution, specifically referencing any price change based on the substitution.

BIDDER'S proposal shall contain data to substantiate that the substitution is, in fact, equal to the products specified. Substantiating data may consist of drawings or other documents necessary or helpful to indicate any modifications resulting from use of proposed substitutions. BIDDER bears the burden of proving that the proposed substitutions meet the quality standards established in the Proposal Documents.

If BIDDER is eventually awarded a Purchase Order, the Purchase Order will indicate whether the substitution was acceptable or whether the original product must be used.

The acceptance of a substitution does not alleviate BIDDER of any contractual responsibility.

10. BONDS

N/A

11. INSURANCE

The certificates of insurance required by the Contract Documents must also accompany the Acknowledgment of Award. All these documents should be directed to the attention of the BWL Buyer listed on the Notice to Bidders with a copy to the person designated as "BWL REPRESENTATIVE.". The purchase order number must be indicated on the Acknowledgement, bonds, and certificates of insurance.

12. EVALUATION OF PROPOSALS

All proposals will be sealed until the time designated on the Notice to Bidders. At the opening, the names of all BIDDERS will be made public.

To evaluate the proposals, the BWL will consider such factors as responsiveness of proposal, price, time of completion, exceptions to the Proposal Documents, financial stability, recent and past experience and similar factors in determining which proposal it deems to be in its best interest. The BWL does not herein limit the methods or factors to be used for evaluation. The intent of the evaluation process is to choose the best-evaluated proposal.

The BWL reserves the right to enter into private negotiations with the selected BIDDER(S), for further scrutiny, even though these negotiations may result in changes to the BWL specifications or to the BIDDER(S) services, price quotations, etc.

The BWL may reject any Proposal, waive irregularities or technicalities in any Proposal, and accept any Proposal in whole or in part. The BWL may cancel, in whole or in part, the entire Request for Proposal at any time prior to full execution of a contract between both parties.

13. QUESTIONS, MEETING OF BIDDERS, AND ADDENDA

In the beginning of the bid preparation period, the BWL REPRESENTATIVE may notify each BIDDER of a Meeting of BIDDERS to be held at a later date, usually during the second week of the proposal preparation time. If a meeting is held, BIDDERS are required to attend the meeting to present their questions about the Proposal Documents, to receive answers to questions, to receive copies of Addenda, to participate in open discussion of the Project, and to participate in the only conducted tour of the Site. The Notice of Meeting will give complete details about the meeting and instructions regarding preparation for the meeting

Changes, revisions, and corrections that may result from the discussions that occur during the Meeting of BIDDERS will be confirmed by the issuance of an Addendum. Suggestions of topics for the Meeting agenda should be directed to the person designated on the Notice to Bidders.

14. CONTRACT PRICE

The contract price shall be equal to the proposal price adjusted to any price changes as agreed upon in writing by the BIDDER and the BWL.

The contract price may be modified via a change order upon mutual agreement of both parties.

15. EXECUTION OF ACKNOWLEDGMENT OF AWARD

The successful BIDDER shall, within twenty-four hours after issuance of the Purchase Order, return the properly executed Acknowledgment of Award to the person designated on the Notice to Bidders. BIDDER shall certify that the person who signs the Acknowledgment is empowered to do so. Upon execution, an agreement will be deemed consummated and the documents, as specified in the list of RFP documents set forth in Section 1 herein, along with any mutually agreed written changes, shall constitute the full and binding agreement between the parties. If the properly executed Acknowledgement, along with any required bonds and insurance certificates, are not returned within five (5) calendar days, the BWL may deem the Purchase Order rejected and offer the Purchase Order to another BIDDER without penalty.

16. CONFIDENTIALITY

All complete, in-process or conceptual work are the sole property of the BWL and may not be used without the consent of the BWL. Any product used, such as, drawings and specifications, photos, campaigns, drafts, etc. are the sole property of the BWL. All BWL information will be kept confidential at all times. The BIDDER shall not disclose to others, without the written consent of the BWL, any information concerning the service provided, the organization, its personnel, or its activities, which the BIDDER may obtain as a result of, or in connection with the performance of the services.

17. FREEDOM OF INFORMATION ACT (FOIA)

The BWL is subject to the Freedom of Information Act (MCL §15.231 et seq.). The BWL may be required to make available certain information submitted with your bid or proposal available to the public if requested. This information may include comparative pricing and other data which the BIDDER may normally consider to be proprietary or confidential. If the BIDDER submits any information it deems to be exempt from FOIA requirements, the BIDDER shall clearly mark it as such.

18. LOCAL PREFERENCE

Applies to bids of \$100,000 or greater only.

Businesses with an office in the BWL service area shall be given the following advantage when the BWL receives a sealed proposal:

- (a) After the proposals are evaluated and the best-evaluated proposal is selected, the BWL shall determine whether the best-evaluated BIDDER is a Local business.
- (b) If a Local business was not selected as the best-evaluated BIDDER due entirely to its proposal price being higher than the price of the best-evaluated proposal, the BWL shall determine whether the best-evaluated Local business's proposal was within 5% of the proposal price of the best evaluated proposal. If so, this Local business shall then have the opportunity to reduce its price to match the price of the original best-evaluated BIDDER, and upon such agreement, shall be deemed the best-evaluated proposal.
- (c) If more than one Local business is within 5% of the price of the best-evaluated proposal and is otherwise equal to the best-evaluated proposal, and the Local business identified in (b) refuses to lower its proposal price, the same opportunity shall be afforded to the other qualifying Lansing-based businesses, in order of ascending price.

If no Lansing-based business agrees to the conditions described above, the contract shall be awarded to the person or business originally deemed the best-evaluated BIDDER.

19. SAFETY

Unless excepted in the Proposal, and accepted by the BWL, all BIDDERS will be required to comply with the BWL's Safety Manual. All BIDDERS should read and understand the BWL Safety Manual before submitting a Proposal. The BWL Safety Manual can be found on the BWL's website, <http://www.lbwl.com> by selecting first "Business Services" and then "Doing Business with BWL."

END OF INSTRUCTIONS TO BIDDERS

SCOPE OF WORK
Mid-Michigan Bulk Water Chemicals Consortium 2018

1. GENERAL

The Lansing Board of Water and Light (BWL) is soliciting proposals for a joint chemical contract. This contract is for one year, July 01, 2018 – June 30, 2019. The entities participating in this contract are as follows: BWL, City of Jackson, City of Ann Arbor, City of Lansing, City of Adrian, East Lansing – Meridian Water & Sewer Authority, City of East Lansing, and Delhi Township. All chemicals must conform to NSF standards for use in potable drinking water and meet all specifications listed in bid documents. Prices per ton of chemical are for delivery to any and all of the facilities listed in the proposal.

2. BOARD OF WATER AND LIGHT BACKGROUND

The Board of Water and Light was founded in 1885 and is the largest municipally owned electric utility in Michigan and among the 30 largest in the United States. An eight-member Board of Commissioners appointed by the mayor and confirmed by the Lansing City Council governs the BWL.

The Board employs approximately 700 bargaining and non-bargaining employees. The bargaining unit employees are represented by the International Brotherhood of Electrical workers (IBEW) local 352.

The Board owns and operates:

- (a) an electric system, which generates, purchases and distributes electric power and energy, and provides electric service to approximately 95,000 residential, commercial, and industrial customers in the greater Lansing, Michigan area;
- (b) water wells, a raw water transmission system, water conditioning facilities, and an extensive water distribution system serving potable water to approximately 55,000 residential, commercial, and industrial customers in the greater Lansing area;
- (c) steam generation boilers, a steam transmission and distribution system serving approximately 185 customers, and a chilled water facility and distribution piping system serving 16 customers in the city of Lansing.

The Board's total operating revenue for fiscal 2016 was \$360,935,415.

Additional BWL background and information may be viewed at www.lbwl.com.

3. DELIVERY AND BILLING ADDRESSES

The chemical is to be delivered and billed to the facilities and cities as listed below:

| | DELIVERY ADDRESS | BILLING ADDRESS |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LANSING BOARD OF WATER AND LIGHT | <p>Lansing Board of Water and Light Dye Water 148 S. Cedar St. Lansing, MI 48912-1139</p> <p>Deliveries: Mon-Fri 7:00 am – 2:00 pm. Call one hour in advance of delivery. P: 517-643-6621</p> <hr/> <p>Lansing Board of Water and Light Wise Rd. 5411 Wise Rd. Lansing, MI 48911-3409</p> <p>Deliveries: Mon-Fri 7:00 am – 12:00 pm. Call one hour in advance of delivery. P: 517-643-6621</p> | <p>Lansing Board of Water and Light Attn: Accounting Dept.- Accounts Payable P: 517-702-6186 E: crystal.jefferson@lbwl.com E: bwlinvoices@lbwl.com</p> <p>*Special note: BWL requires all invoices for chemicals to be emailed to us within 3 business days of delivery.</p> |
| CITY OF ANN ARBOR | <p>Ann Arbor Water Treatment Plant 919 Sunset Road Ann Arbor, MI 48103 Del Hours: 7am to 3pm</p> <hr/> <p>Ann Arbor Waste Water Treatment Plant 49 S. Dixboro Rd Ann Arbor, MI 48105 Del Hours: 8am to 5pm</p> | <p>City of Ann Arbor c/o Finance 301 East Huron St. PO Box 8647 Ann Arbor, MI 48107</p> |
| CITY OF JACKSON | <p>City of Jackson Water & Wastewater Treatment Plants 740 East Mansion St. Jackson, MI 49203</p> <hr/> <p>Wastewater Treatment Plant 2995 Lansing Ave. Jackson, MI 49201</p> | <p>City of Jackson, Michigan 161 W. Michigan Avenue Jackson, Michigan 49201</p> |
| CITY OF LANSING | <p>City of Lansing – Public Service Waste Water Division 1625 Sunset Ave Lansing, MI 48917</p> <p>Deliveries: Mon.-Fri. 7:00 am – 2:00 pm. No weekends or holidays unless prearranged or</p> | <p>City of Lansing – Public Service Waste Water Division 1625 Sunset Ave Lansing, MI 48917</p> |

| | | |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| | emergency. | |
| CITY OF ADRIAN | <p>Adrian Water Treatment 815 Bent Oak Ave. Adrian MI 49221</p> <p>Deliveries: Mon. – Fri. 7:00am to 2:00pm. No weekends or holidays unless prearranged or emergency</p> <hr/> <p>1001 Oakwood Rd. Adrian, MI 49221</p> | <p>City of Adrian Utilities Attn: Accounting 135 E. Maumee St. Adrian, MI 49221</p> |
| EAST LANSING-MERIDIAN WATER & SEWER AUTHORITY | <p>2470 Burcham Dr. East Lansing, MI 48823</p> | <p>East Lansing-Meridian Water & Sewer Authority 2470 Burcham Drive East Lansing, MI 48823</p> |
| CITY OF EAST LANSING | <p>Water Resource Recovery Facility 1700 Trowbridge Road East Lansing, MI 48823</p> <hr/> | <p>Water Resource Recovery Facility 1700 Trowbridge Road East Lansing, MI 48823</p> <hr/> |
| OWOSSO | <p>Waste Water Treatment Plant 1410 Chippewa Trail Owosso, MI 48867</p> <p>Owosso Water Filtration Plant 1111 Allendale Ave Owosso, MI 48867</p> | <p>City of Owosso Attn: Accounts Payable – Rhonda Pritchett 301 W. Main St. Owosso, MI 48867</p> |
| | | |

4. ESTIMATED ANNUAL USAGES PER MUNICIPALITY

| <u>MUNICIPALITY</u> | <u>CHEMICAL</u> | <u>ESTIMATED YEARLY USAGE</u> | <u>MINIMUM DELIVERY</u> |
|----------------------------------|---------------------|-------------------------------|-------------------------------------|
| LANSING BOARD OF WATER AND LIGHT | SODIUM HYPOCHLORITE | 225,000 gallons | 4000-4800 gallon shipments required |
| | HYDROFLUOSILIC ACID | 90 tons | 30,000 and 40,000 lbs. shipments |
| | FERRIC CHLORIDE | 48 ton | 18 ton 2 – 3 times a year |
| | PEBBLE QUICKLIME | 11,650 tons | 1 or 2 50 ton deliveries a week |

| | | | |
|-----------------------------------------------|---------------------|----------------------------|--------------------------------------------------|
| CITY OF JACKSON | SODIUM HYPOCHLORITE | 73,000 gallons | 5,000 gallons maximum |
| | HYDROFLUOSILIC ACID | 55 tons | Self-unloading truck, 2,500 gallons required |
| | FERRIC ACID | 60 tons | 3,000 gal |
| | PEBBLE QUICKLIME | 3,700 tons | 50-100 ton loads (prefer 100 ton del) |
| CITY OF ANN ARBOR | SODIUM HYPOCHLORITE | 850 tons | 60,000 gal once per month |
| | HYDROFLUOSILIC ACID | 68 tons | Delivery is 2-3 times per year |
| | FERRIC CHLORIDE | Dry: 105 Liquid: 48,000 | 3,000 gal min |
| | PEBBLE QUICKLIME | 5,000 ton | Delivery 2-3 times per week |
| CITY OF LANSING | FERRIC CHLORIDE | 468 dry tons | 8,000 dry gallon shipments preferred |
| | SODIUM HYPOCHLORITE | 80,000 gallons | 4000-4800 gallon shipments required |
| | PEBBLE QUICKLIME | 850 dry ton | 10 deliveries a year |
| CITY OF ADRIAN | SODIUM HYPOCHLORITE | 45,000 gallons | 4,500 gallons every two months |
| | FERRIC CHLORIDE | 66,000 liquid gallons | 6,000 liquid gallons every five weeks |
| | HYDROFLUOSILIC ACID | 14,000 lbs wet | Min delivery 2,000 gals –PRICE IN LBS ON INVOICE |
| | PEBBLE QUICKLIME | 1,200 tons | 40 ton dry |
| EAST LANSING-MERIDIAN WATER & SEWER AUTHORITY | SODIUM HYPOCHLORITE | 60,000 gallons | 4,000 gallons per delivery, every 2-3 weeks |
| | HYDROFLUOSILIC ACID | 7 tons | 2,500 gallons per delivery, about one per year |
| | FERRIC CHLORIDE | 27 liquid tons | Self Unloading truck, 2,500 gal delivery |
| | PEBBLE QUICKLIME | 2,100 tons | Pneumatic truck-load 1 per week |
| CITY OF EAST LANSING | FERRIC CHLORIDE | 420 dry tons | 8,000 gallons every two weeks |
| | SODIUM HYPOCHLORITE | 45 wet tons | 4,5000 gallons 1 or twice per year |
| OWOSSO | SODIUM HYPOCHLORITE | 54,000 gal | 4,500 gal per month |
| | FERRIC CHLORIDE | 72,000 lbs | 6,000 lbs Fe per month |

| | | | |
|--|------------------|-----------------|--------------------------------------------------------------|
| | PEBBLE QUICKLIME | 720 to 960 tons | 60 to 80 tons per month. Max del of 55 tons can be accepted. |
|--|------------------|-----------------|--------------------------------------------------------------|

5. CHEMICAL SPECIFICATIONS

NSF certification and MSDS shall accompany all orders and shipments. The Contractor/ Driver are responsible for appropriate hoses, adapters, and attachments to properly connect to unloading lines.

Sodium Hypochlorite

- Shall meet NSF Standard 60 and AWWA B300.
- Sodium Hypochlorite to be between 12% and 17% by weight.

Hydrofluosilic Acid

- Pricing is on an "as is" basis. Price shall stay the same regardless of the assay received.
- Must meet NSF Standard 60 and AWWA B703-00.
- Truck must be capable of maintaining 20 PSIG air pressure during unloading

Ferric Chloride

- Dry
 - Actual delivered solution to be 38% ferric chloride
 - Propose per dry ton price
- Liquid Ton
 - Ferric chloride shall be furnished as liquid ferric chloride with a density of 11 to 12 pounds per gallon. The ferric chloride content will be between 38.5% and 45.0% by weight. Bids are to be submitted on a basis of 100% ferric chloride.

Pebble Quick Lime

- Pebble quicklime shall meet all chemical specifications set forth in AWWA B202-93 unless otherwise specified.
- Water soluble calcium oxide content shall not be less than 90% as determined by the "Modified Scaife Method" as set forth in AWWA-202-88 (ASIM C25-58) Chemical Analysis of Lime
- Pebble Quicklime shall meet the following slaking test as detailed in AWWA 202-93:
 - Place 100 grams of sample from shipment in 400 ml of distilled water at 25°C temperature, stirring constantly for 3 minutes and read temperature. Temperature rise shall be a minimum of 40°C and all lime shall be slaked at the end of 10 minutes.
 - The lime shall not contain any organic or inorganic substances in quantities capable of producing deleterious effect upon the health of people drinking the water that has been treated with it.

- The purchase price of Calcium Oxide shall be based on 90% or greater available calcium oxide content. There shall be a reduction of 1.5% of the bid price for each 1.0%, or fraction thereof, deficiency of available calcium oxide content between 90% and 80%, and a 2.0% reduction for each 10%, or fraction thereof, deficiency of available calcium oxide content below 80% based on analysis done by the municipality's laboratory analysis using method AWWA 202-93.
- The vendor shall supply a sample of each load to the Operations Supervisor upon delivery. One-half of each sample will be retained for 30 days for inspection or analysis by the supplier. The municipality will notify the supplier within ten days of receipt of a shipment that does not meet specifications.

PROPOSAL FORM
Mid-Michigan Bulk Water Chemical Consortium 2018

Note: This form may be completed using MS Word®

Provide the following business and contact information:

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------|
| Legal Name: Mosaic Global Sales, LLC | | Federal ID or Social Security Number: 35-2510179 |
| Address: 13830 Circa Crossing Drive | | State of Incorporation DE |
| City: Lithia | State & Zip: FL, 33547 | Primary E-Mail: FSA.Group@mosaicco.com |
| Type of Organization: <input type="checkbox"/> Corporation <input checked="" type="checkbox"/> LLC <input type="checkbox"/> LLP <input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Partnership <input type="checkbox"/> S-Corporation <input type="checkbox"/> Other (Explain) | | |
| Office Phone: 800.578.7891 | Alternate Office Phone: 800.514.8027 | Office Fax: 813.571.6915 |
| Primary Contact: Stacey Cole | Contact Phone: 800.578.7891 | Contact Fax: 813.571.6915 |
| Contact Mobile: 813.957.8006 | Contact E-Mail: FSA.Group@mosaicco.com | Website URL: www.mosaicco.com |

Provide responses to the following questions:

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| How many years has your firm been in business under the present ownership? | 13 |
| Have you done business with the Board of Water and Light? If so, furnish specifics. | Yes, 7/1/16 - 06/30/17 |
| Have you done business with the City of Lansing? If so, furnish specifics. | Yes, 7/1/16 - 06/30/17 |
| Have you ever defaulted on a contract or been involved in litigation with the Board of Water and Light or the City of Lansing? If so, furnish specifics. | NO |
| Have you ever defaulted on a contract or been involved in litigation or pending litigation or claims with any other client in the past five years? If so, furnish specifics. | NO |
| List any relationships between your firm's staff and any current BWL employee. | N/A |
| Specify your background, training, experience, credentials and other factors which qualify you to perform the work described in the Scope of Work included in this Request for Proposal. | Mosaic Crop Nutrition, LLC was formed October 22, 2014 by merging Cargill in Riverview and IMC-Agrico in Uncle Sam, LA. Both companies manufactured Hydrofluorosilicic Acid (HFS) for over 30 years. Mosaic Crop Nutrition, LLC is owned by MOS Holdings, Inc. located in Plymouth, MN In June 2014, Mosaic Crop Nutrition, LLC, changed the name of their US operations to Mosaic Global Sales, LLC. |
| List at least three (3) references for similar work you have performed for other clients. Include Client name, contact name, title and phone number. | City of Tampa, FL - Penny Hammock, Buyer 813.274.8638 City of Baltimore, MD - Mukesh Vasavada, Buyer 410.396.5711 American Water (multiple locations) - Robert Fredericks, Buyer 856.727.6236 |
| List subcontractors that you plan to use on this project. | N/A |
| Indicate any exceptions to the enclosed General Requirements. | N/A |
| Include any additional information you may deem helpful in evaluating your proposal. | Mosaic Global Sales, LLC is a manufacture of Hydrofluorosilicic Acid that supplies domestic product only. |

PROPOSAL FORM
Mid-Michigan Bulk Water Chemical Consortium 2018

The undersigned Bidder hereby acknowledges receipt of the following addenda:

| Addendum No. | Date | Enter addenda numbers and received dates if applicable |
|--------------|------|--------------------------------------------------------|
| | | |
| | | |
| | | |

Provide pricing:

| Activity | Unit Pricing |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Sodium Hypochlorite Chemical: \$ <u>NO BID</u> / gal Demurrage: \$ <u>N/A</u> / hour *first 4 hours free | |
| Hydrofluosilic Acid Chemical in minimum 40,000 lbs. shipments: \$ <u>294.00</u> / ton Chemical in minimum 30,000 lbs. shipments: \$ <u>316.00</u> / ton Chemical split between Dye and Wise Plants minimum 40,000 lbs. shipments: \$ <u>299.00</u> / ton Demurrage: \$ <u>0.00</u> / hour *first 4 hours free | |
| Ferric Chloride Dry Chemical: \$ <u>NO BID</u> / ton Liquid Chemical: \$ <u>NO BID</u> / ton Demurrage: \$ <u>N/A</u> / hour *first 4 hours free | |
| Pebble Quick Lime Chemical: \$ <u>NO BID</u> / ton Demurrage: \$ <u>N/A</u> / hour *first 4 hours free | |

The undersigned Bidder states that this proposal is made in conformity with the Proposal Documents and agrees that, in the event of any discrepancies or differences between any conditions of their proposal and the Proposal Documents, the provisions of the latter shall prevail. No verbal or written agreements or understandings considered or entered into prior to signing of a contract in the form of a purchase order, shall be binding after the signing of the contract unless incorporated in the contract.

The undersigned Bidder certifies that this proposal is made in good faith, without collusion or connection with any other person or persons submitting proposals for the work.

| |
|------------------------------------------------------------------------------------------------|
| Company Name: <u>Mosaic Global Sales, LLC</u> |
| Signature:  |

PROPOSAL FORM
Mid-Michigan Bulk Water Chemical Consortium 2018

| |
|-------------------------|
| Name: Don Jernstrom |
| Title: Business Manager |
| Date: 3/20/18 |

END OF PROPOSAL FORM

TERMS AND CONDITIONS FOR WATER CHEMICALS

General Requirements may be individually modified or superseded by PURCHASER Supplemental Requirements. In case of conflicts, the PURCHASER Supplemental Requirements shall govern.

1. DEFINITIONS

All terms and conditions of the Seller most recent Permit application shall remain in effect except as may be modified herein.

2. TERM

The following meanings are ascribed to the terms used in these General Requirements:

PURCHASER – means the City of Lansing, by its Board of Water and Light.

Consortium – means Mid-Michigan Drinking Water Consortium, consisting of the City of Lansing, by its Board of Water and Light, City of Jackson Water and Wastewater, City of Adrian, Ann Arbor Drinking Water Treatment Plant, East Lansing-Meridian Water and Sewer Authority, Delhi Charter Township, and Delta Township.

Contract Documents – means the PURCHASER's solicitation, including the invitation to bid or request for proposal or quotation, instructions to bidders/offerors, SELLER'S response to the solicitation, PURCHASER drawings, the specifications, any addenda or supplements including Change Orders, the purchase order, these General Requirements, and Supplemental Requirements.

SELLER– means the individual, partnership, corporation or other entity awarded a purchase order by the PURCHASER.

Day – means a calendar day.

Designated Representative – means the General Manager of the PURCHASER, or authorized designee. Designated Representative shall be the individual designated to receive submissions and notices from SELLER and to represent the PURCHASER in the performance of the Contract. Any interaction with another division of the PURCHASER shall be coordinated through the Designated Representative.

Participants – means entities part of Mid-Michigan Drinking Water Consortium.

Work – means the products and services to be furnished under the Contract Documents. Work includes and is the result of performing services, transporting chemicals, and furnishing chemicals.

3. TERMS

A. QUALITY

- (1) Chemicals shall meet all criteria identified in the Specifications.
- (2) The PURCHASER reserves the right to reject all chemicals that fail to meet those criteria.
- (3) Chemicals that fail to meet those criteria that have been delivered to the PURCHASER must be removed by the SELLER at SELLER's expense.

B. CHEMICALS FURNISHED BY SELLER

- (1) The SELLER shall arrange and pay all charges for the proper delivery, receipt, rigging, unloading, and storage of all chemicals requested by the PURCHASER. The place of delivery is the PURCHASER's place of business. The PURCHASER will provide an area for storage of the material at its delivery site. SELLER must supply a sufficient number of individuals to promptly unload and store chemicals. SELLER continues to bear all responsibility for care, custody, control and protection of the chemicals until the chemicals are properly stored. After storage, SELLER retains responsibility only for the quality of the chemicals.

- (2) The SELLER shall notify the PURCHASER's Representative when any material is ready for shipment. Before arranging for any shipment, SELLER must ensure that the delivery will not cause undue blocking at the delivery site.
- (3) SELLER shall supply the manufacturer's name and catalog number for each item, if applicable.
- (4) PURCHASER's Designated Representative must coordinate shipment to the site.
- (5) If requested by the PURCHASER's Designated Representative, SELLER shall furnish copies of bills of lading, shipping manifests, and other papers showing shipment of chemicals and/or reports of their receipt.
- (6) SELLER shall show the PURCHASER's purchase order number and release number on all shipments, packing lists, and invoices. Shipments may be refused without this information.
- (7) All chemicals shall be new and from a reputable manufacturer currently engaged in the production of like chemicals.

4. PERMITS

SELLER shall obtain all permits necessary to transport and deliver chemicals to the PURCHASER. The PURCHASER shall obtain any necessary permit to store the chemicals on its properties.

5. PRICE

All prices shall be a firm delivered price for the term of the contract, unless specified in SELLER's proposal or bid and accepted by the PURCHASER before award. Prices shall include any fuel surcharge.

The PURCHASER shall solely be financially responsible for such material it procures on its own behalf and through its own bilateral contracts under the proposal of this agreement. The PURCHASER shall not in any shape or form be financially responsible for any procured material obtained from contracts by any other Participant(s) of Consortium.

6. SAFETY

- (1) SELLER shall proceed with the Work in a manner dictated by all applicable federal and state safety regulations, the PURCHASER Safety Manual, and safe practice, using chemicals, tools and rigging of a safe character. The current version of the PURCHASER's Safety Manual can be found at http://www.lbw.com/uploadedFiles/MainSite/Content/Doing_Business/BWL_Safety_Manual.pdf. SELLER shall strictly comply with these laws, rules and regulations including, but not limited to, OSHA and MIOSHA requirements, including without limitation MIOSHA "Right to Know" obligations, MCL 408.1001 et seq., and shall provide documented evidence of that compliance upon the Designated Representative's request.
- (2) SELLER shall provide and use all protective devices to permit safe working conditions for SELLER's employees and to prevent hazards to employees of other Seller, the PURCHASER and its employees, or the public.
- (3) While on PURCHASER property, SELLER'S personnel shall wear appropriate personal protection equipment.
- (4) If, in the PURCHASER's opinion, SELLER is not proceeding with its Work in a safe manner or in accordance with federal, state, or PURCHASER safety regulations, the PURCHASER may issue a Seller Safety Violation Notice or otherwise stop the Work and direct the SELLER to rectify the unsafe conditions immediately. If SELLER fails to promptly rectify the situation, the PURCHASER may proceed to rectify the unsafe conditions at SELLER'S expense. Compliance with this paragraph shall effect neither the Contract price nor the schedule. SELLER shall comply with all PURCHASERS, OSHA, and MIOSHA confined space requirements and procedures, including PURCHASER permitting requirements.

7. INSURANCE

- (1) At its own expense, SELLER shall acquire and continue in effect for the term of the Contract, insurance providing the following coverage(s):
 - (a) Commercial General Liability Insurance on an occurrence basis. This coverage shall include Personal Injury, Contractual Liability, and Products/Completed Operations insurance. The limit of liability shall be at least \$1,000,000 combined single limit for bodily injury and property damage. There shall be no exclusion for work within any distance of railroad property.
 - (b) Automobile liability insurance that complies with the requirements of the Michigan No-fault law with residual liability limit of at least \$1,000,000 combined single limit for bodily injury and property damage. There shall be coverage for owned, hired, and non-owned vehicles.
 - (c) Worker's compensation insurance as required by Michigan law.

- (2) SELLER shall purchase insurance from companies acceptable to the PURCHASER. Generally, a company rated A- or better by A.M. Best and domiciled in the United States will be acceptable to the PURCHASER. The A.M. Best website can be found at: <http://www.ambest.com/>.
- (3) Certificates of insurance shall state that they will not be canceled nor any changes made, which alters, restricts or reduces the insurance provided or changes the name of the insured, without first giving thirty (30) days' notice in writing to the Corporate Secretary, PURCHASER, 1232 Haco Dr., P.O. Box 13007, Lansing, Michigan 48901.

8. INDEMNITY

SELLER shall, to the fullest extent allowed by law, defend, indemnify, and hold harmless the PURCHASER, the City of Lansing, their respective officers, agents, employees and insurers against any liability, loss, damage, demand, governmental action, citation, cause of action, or expense of whatever nature (including costs of defense, settlement, court costs and attorney's fees) which may result from any loss, injury, death, or damage (including environmental harm) allegedly sustained by any person, firm, corporation, or other entity, which arises out of or is caused by any act or omission of SELLER its officers, agents, or employees in connection with or in any way arising out of this Contract. SELLER's obligations under this paragraph shall survive the expiration or termination of this Contract.

9. REMEDIES

If SELLER fails or refuses to substantially perform according to the terms of this Contract, SELLER shall be declared to be in default by the PURCHASER by a written notice and shall be given an opportunity to perform in accordance with the notice. If the default has not been corrected or begun to be corrected within the time specified in the notice, or the SELLER has ceased to pursue the correction with due diligence, the PURCHASER may elect to (a) "cover" by purchasing the chemicals from another responsible vendor at the lowest cost available to the PURCHASER, and passing any additional cost on to the SELLER, who must pay the additional costs within 30 days of invoice receipt; (b) terminate the agreement and seek damages, or (c) treat the agreement as continuing and require specific performance, or (d) avail itself of any other remedy at law or equity.

If the PURCHASER fails or refuses to substantially perform according to the terms of this Contract, the PURCHASER shall be declared to be in default by the SELLER by a written notice and shall be given an opportunity to perform in accordance with the notice. If the default has not been corrected or begun to be corrected within the time specified in the notice, or the PURCHASER has ceased to pursue the correction with due diligence, the SELLER may elect to (a) terminate the agreement and seek damages, or (b) treat the agreement as continuing and require specific performance, or (c) avail itself of any other remedy at law or equity.

10. PLANT PROTECTION AND SECURITY

- (1) If the Work requires SELLER'S employees to enter a protected or policed area of the PURCHASER, including all utility operating areas, the SELLER shall arrange, in conjunction with PURCHASER security, for visible identification badges for all SELLER personnel employed on such Work. SELLER's trucks or common carriers entering PURCHASER property are subject to inspection.
- (2) SELLER, its employees, or suppliers, shall observe traffic rules, speed regulations, or other safety rules in the operation of its vehicles and equipment on PURCHASER property, as established by PURCHASER.
- (3) SELLER's employees shall comply with the PURCHASER's "Weapons in the Workplace" policy and "Prevention of Violence in the Workplace" policy.

11. TIME AND MANNER OF PERFORMANCE

- (1) The PURCHASER's Designated Representative shall contact SELLER when a shipment of chemicals is needed. The SELLER shall deliver the chemicals within 21 days to the PURCHASER location identified by the PURCHASER's Designated Representative, unless a shorter time is specified in the bid/proposal documents. In some cases, a shipment may be split between two PURCHASER locations.
- (2) SELLER shall keep a sufficient quantity of chemicals on hand to meet the PURCHASER's demands, in accordance with the Specifications.
- (3) Any activities occurring on PURCHASER property shall be performed from 8 a.m. through 5 p.m., Monday through Friday, excluding PURCHASER holidays. If SELLER wishes to perform Work on PURCHASER property during other times, SELLER must receive express written permission from the Designated Representative.

12. REPORTING

SELLER shall provide quarterly reports to the PURCHASER, including sales per month, order fulfillment percentage, backorder reports, on time delivery tracking, and other information requested by the PURCHASER.

13. DELAY

- (1) Time is of the essence in the execution of the Work.
- (2) If SELLER fails to deliver the chemicals within 21 days after demand, or shorter time specified in the bid/proposal documents, and the delay is not caused by the PURCHASER or its agent, SELLER shall pay the PURCHASER's direct costs caused by the delay, including the need to "cover" by purchasing chemicals from another vendor, if applicable. The PURCHASER may elect to waive this penalty, in writing, by permitting a back-order of up to fourteen days past the expected delivery date.

13. GOVERNING LAW AND VENUE

- (1) The Contract Documents shall be interpreted in accordance with the laws of the State of Michigan, without regard to conflict of laws provisions.
- (2) Venue shall be in Ingham County, Michigan.

14. FORCE MAJEURE

Neither the PURCHASER nor SELLER shall be held responsible for any delay or default caused by fire, act of God, riot, terrorist act, other violent act, war, or flood where such cause was beyond the delaying or defaulting party's reasonable control. However, SELLER shall make all reasonable efforts to remove or eliminate such a cause of delay or default and shall, upon the cessation of the cause, diligently pursue performance or its obligation under this Contract. SELLER'S management of its plant operations and compliance with regulations, even if they impact SELLER'S ability to meet the contract requirements, do not constitute force majeure.

15. RIGHT TO AUDIT RECORDS

The PURCHASER shall be entitled to audit the books and records of a SELLER or under any PURCHASER contract or subcontract to the extent that such books, documents, papers and records are pertinent to the performance of such contract or subcontract. The SELLER shall maintain such books and records for a period of three years from the date of final payment under the prime contract for a period of three years from the date of final payment under the subcontract.

16. NONDISCRIMINATION

SELLER agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, creed, religion, national origin, sex, disability, age, height, weight, veteran status, marital status, or any other reason prohibited by law. A breach of this covenant shall be considered a material breach of contract.

17. INDEPENDENT SELLER

SELLER shall be, for all purposes, an independent SELLER and not an employee or agent of the PURCHASER. SELLER shall not hold itself out as an agent of the PURCHASER or the City of Lansing.

SELLER acknowledges that PARTICIPANTS are, for all purposes, independent SELLER(S) and not an employee or agent of the PURCHASER or the City of Lansing.

18. TERMINATION FOR CONVENIENCE

The PURCHASER may also terminate this Contract for its own convenience upon thirty days written notice. If the PURCHASER terminates for convenience, however, it shall compensate SELLER for all Specification-conforming chemicals delivered to the PURCHASER.

19. CONTRACT

The final versions of the Contract Documents, taken as a whole, constitute the sole and final agreement between the parties (Contract), which can only be modified by a written document properly executed by both parties.

20. LOADING/UNLOADING

Prior to offloading any chemical, the facility personnel shall:

- Verify the Bill of Lading for the correct chemical and correct PURCHASER delivery address.
- Assure that the material is being off loaded into the correct bulk tank.
- Determine the available tank volume is sufficient for the incoming delivery.
- Require that the driver remain in line of sight of the delivery hose and bulk tank connection at all times.
- Require that the driver have the appropriate facility personal protective equipment, including but not limited to hardhat, steel toed shoes, chemical safety goggles, etc.
- Require that the driver have appropriate spill response supplies and that any storm drains in the immediate area will be protected with appropriate "drain blocker" mats or plugs prior to starting the off-loading process.

Immediately report to management any problems with driver actions, PURCHASER tank fill connections, fill valve containment, tank level indicators, secondary containment, or any other safety or environmental concern.

SWORN AND NOTARIZED AFFIDAVIT OF COMPLIANCE

IRAN ECONOMIC SANCTIONS ACT

Michigan Public Act No. 517 of 2012

All bidders must submit the following certification statement in compliance with Public Act No. 517 of 2012 (the "Iran Economic Sanctions Act") and attach this form to the bid. **The Lansing Board of Water & Light shall not accept any bid that does not include this sworn and notarized certification of statement.**

The undersigned, the owner or authorized officer of Mosaic Global Sales, LLC (the Bidder), pursuant to the compliance certification requirement provided in the Lansing Board of Water & Light Request for Proposal, hereby certifies, represents and warrants that the Bidder (including its officers, directors and employees) is not an "Iran linked business" within the meaning of the Iran Economic Sanctions Act, and that in the event the Bidder is awarded a contract as a result of the aforementioned Request for Proposal, the Bidder will not become an "Iran linked business" at any time during the course of performing the work or any services under the contract.

The Bidder further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or two (2) times the amount of the contract or proposed contract for which the false certification is made, whichever is greater, the cost of the Lansing Board of Water & Light's investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a Request for Proposal for three (3) years from the date it is determined that the person has submitted the false certification.

BIDDER

Mosaic Global Sales, LLC

By: Don Jernstrom - [Signature]

Its: Business Manager

Date: 03/20/18

STATE OF FLORIDA)

COUNTY OF HILLSBOROUGH)

This instrument was acknowledged before me on the 20th day of March, 2018, by
Don Jernstrom.



[Signature]

Heidi Schmitz, Notary Public

Hillsborough County, Florida

My Commission Expires: 07/23/21

Acting in the County of: Hillsborough

**CERTIFICATE OF SECRETARY
OF
MOSAIC GLOBAL SALES, LLC
AS TO CORPORATE AUTHORIZATION**

The undersigned, Mark J. Isaacson, hereby certifies that he is the Corporate Secretary of Mosaic Global Sales, LLC, a Delaware limited liability company (the "Company"), and further certifies as follows:

1. Mosaic Crop Nutrition, LLC, a Delaware limited liability company ("MCN") is the managing member of the Company.
2. He is a member of the Board of Managers of MCN.
3. The following is a true and correct copy of resolutions passed by the Managing Member of the Company on November 13, 2017, pursuant to authority set forth in Sections 18-402 and 18-407 of the Delaware Limited Liability Company Act, which resolutions remain in full force and effect:

"FSA GOVERNMENTAL CONTRACT AUTHORIZATION"

WHEREAS, the Company enters into agreements relating to the distribution of Fluorosilicic Acid ("FSA") to governmental authorities, including municipalities, throughout the United States (the "Governmental Contracts");

WHEREAS, the Company desires to grant authority to Kristina E. Dulkoski, Don Jernstrom, and Gustavo Navar (the "Authorized Persons") and each of them acting alone, to negotiate and enter into Governmental Contracts relating to the sale and distribution of FSA and documents relating thereto on behalf of the Company, which Governmental Contracts shall be (i) for a term of not more than two years; (ii) made in the Company's ordinary course of business; (iii) on terms and conditions in which the Company has customarily entered into such contracts; and (iv) on forms approved by the Company for sale and distribution of FSA ("FSA Governmental Contract Authorization"); and


WHEREAS, the Managing Member has determined that granting the FSA Governmental Contract Authorization is in the best interests of the Company.

NOW THEREFORE, BE IT RESOLVED, that:

1. The FSA Governmental Contract Authorization is hereby authorized and approved.
2. Kristina E. Dulkoski, Don Jernstrom, and Gustavo Navar, and each of them acting alone, be and they hereby are authorized, for and on behalf of the Company, to execute any and all documents as may be necessary to complete and enter into the Governmental Contracts including, but not limited to municipal bids or quotes, sales contracts, purchase orders, performance bonds, extension agreements and all ancillary documents related thereto.


3. Any action taken prior to the date hereof necessary or appropriate to effect the transactions contemplated by this resolution is hereby ratified, confirmed and approved in all respects."

IN WITNESS WHEREOF, I have hereto set my hand and the seal of said Company this 13 day of November 2017.


By: **Mark J. Isaacson**
Its: **Corporate Secretary**

STATE OF MINNESOTA)
)ss
COUNTY OF HENNEPIN)

The foregoing instrument was executed the 13 day of November, 2017, by Mark J. Isaacson, the Corporate Secretary of Mosaic Global Sales, LLC, a Delaware limited liability company, on behalf of the Company.


Notary Public





CERTIFIED TO NSF / ANSI 60

SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Hydrofluosilicic Acid
Chemical Name: Silicate(2-), hexafluoro-, dihydrogen
CAS Number: 16961-83-4
Chemical Family: Inorganic Fluorides
Synonyms: Fluorosilicic Acid, Fluosilicic Acid, Hexafluosilicic Acid, HFS, FSA
Primary Use: Industrial Chemical, Water treatment
Company Information: THE MOSAIC COMPANY
3033 Campus Drive
Plymouth, MN 55441
www.mosaicco.com
(800) 918-8270 or (763) 577-2700 8 AM to 5 PM Central Time US
Emergency Phone: 24 Hour Emergency Telephone Number:
For Chemical Emergencies: Spill, Leak, Fire or Accident
Call CHEMTREC North America: (800) 424-9300 CCN 201871
Others: (703) 527-3887 (collect)

SECTION 2

HAZARD IDENTIFICATION

GHS Classification

Acute Tox Category 4 (Oral)
Skin Corrosion/Irritation: Category 1B
Serious Eye Damage/Eye Irritation: Category 1

Hazard Statement H302
Hazard Statement H314
Hazard Statement H318



Signal Word: DANGER

Hazard Statement(s)

H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage

Label Elements:

Precautionary Statements

Prevention:

P260 Do not breath fumes/gas/mist/vapors/spray
P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing / Wear eye protection/face protection
P284 In case of inadequate ventilation/ wear respiratory protection



CERTIFIED TO NSF / ANSI 60

| | | |
|------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| Response: | P301+ P312 | IF SWALLOWED: Call a Poison Center/Doctor if you feel unwell. |
| | P301+P330+P331 | IF SWALLOWED: Rinse mouth, Do NOT induce vomiting. |
| | P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes; Remove contact lenses, if present and easy to do. Continue rinsing. |
| | P303+P361+P353 | IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water. |
| | P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing |
| | P310 | Immediately call a doctor |
| | P363 | Wash contaminated clothing before reuse. |
| | P390 | Absorb Spillage to prevent material damage. |
| Storage: | P405 | Store locked up |
| Disposal: | P501 | Disposal of content/containers to be in accordance with local/regional/national regulations. |

SECTION 3

COMPOSITION INFORMATION ON INGREDIENTS

| | | | |
|--------------|-----------------------|------------|------------|
| Formula: | H_2SiF_6 | | |
| | Hazardous Component | CAS Number | Percentage |
| Composition: | Hydrofluosilicic Acid | 16961-83-4 | 23-25% |

SECTION 4

FIRST AID MEASURES

| | |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| First Aid Procedures: | Eyes: Immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately. |
| | Skin: If on skin, promptly wash the contaminated area with soap and plenty of water. Immediately flush with plenty of water. Discard clothes if contaminated. Get medical attention if irritation occurs |
| | Inhalation: Move to fresh air. Administer oxygen. Treat symptomatically. Get medical attention promptly. Observe for possible delayed reaction. |
| | Ingestion: Do Not induce vomiting. Give large quantities of milk or water to patient if conscious. Seek medical attention promptly. |
| Most important symptoms and effects, both acute and delayed | Refer to Section 11 – Toxicological Information |
| Note to Physician: | None |

SECTION 5

FIRE FIGHTING MEASURES

| | |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extinguishing Media: | Suitable extinguishing media: |
| | Small fires: Use water spray, dry chemical or carbon dioxide (CO ₂). |
| | Large fires: Use water spray, foam, dry chemical or carbon dioxide (CO ₂). |
| | Move containers from fire area if you can do it without risk. Do not get water inside containers. Cool containers with flooding quantities of water until well after fire is out. |
| | Unsuitable extinguishing media: None known |



CERTIFIED TO NSF / ANSI 60

**Unusual Fire and
Explosion Hazards**

Flash Point: Not Applicable
Flammable OSHA Flammability Class: Not applicable
Properties LEL/UEL: Not Applicable
Auto-Ignition Temperature: Not Applicable.

Protection of Fire-fighters

Wear self-contained breathing apparatus with full protective clothing.
Fluorosilicic Acid is a non-combustible; substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

SECTION 6

ACCIDENTAL RELEASE MEASURES

**Advice for non-
emergency personnel:**

Prevent further leakage or spillage if safe to do so. Keep away from incompatible materials.

**Advice for emergency
responders:**

Wear suitable protective clothing, gloves and eye/face protection. Use recommended respiratory protection. Stop leak if you can do it without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Ventilate area.

**Environmental
Precautions:**

Prevent further leakage or spillage if safe to do so. Do not let product get into drains; do not flush into surface water or sanitary sewer system.

Response Techniques:

Pick up mechanically. Use neutralizing agent. Absorb with liquid-binding material (dry earth, sand, vermiculite, acid binders). Ensure adequate ventilation. Dispose spilled/contaminated material as described in Section 13 "Disposal Considerations".

SECTION 7

HANDLING AND STORAGE

Handling:

Use only in well-ventilated areas. Use only equipment and materials which are compatible with the product. Preferably transfer by pump or gravity. Keep away from incompatible products. For precautions see Section 2.

Storage:

Do not use packing made of metal. Store only in the original container. Do not store together with strong bases or very alkaline substances. Do not store together with substances which can be oxidized. Do not store together with flammable substances/solutions. Do not store near sources of heat or ignition, or reactive materials. Must be stored in a room with spill collection facilities. Keep containers tightly closed in a cool, well-ventilated place and away from heat. Keep in a contained area. Keep away from Incompatible products.

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Assure that ventilation is adequate to control airborne levels.

**Personal Protective
Equipment (PPE):**

Eye/Face: Splash proof goggles and full-face shield should be worn at all times.
Skin: Acid proof gloves, headgear, protective shoes and clothing should be worn to prevent contact.
Respiratory: Wear NIOSH approved respiratory protective equipment when vapor or mists may exceed applicable concentration limits.
Other: Facilities utilizing or storing this material should be equipped with an eyewash station and a safety shower.

**General Hygiene
Considerations:**

Avoid breathing fumes. Avoid ingestion. Wash thoroughly after handling. Avoid contact with eyes or skin Use with adequate ventilation



CERTIFIED TO NSF / ANSI 60

| | | |
|----------------------|-----------------------------------------|-----------------------------------|
| Exposure Guidelines: | OSHA Permissible Exposure Limits (PEL): | 2.5 mg/m ³ as Fluoride |
| | ACGIH Threshold Limit Value (TLV): | 2.5 mg/m ³ as Fluoride |

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Note: Unless otherwise stated, values in this section are determined at 20 °C (68 °F) and 760 mm Hg (1 atm).

Material Description

| | |
|-------------------------|-----------------------------------------------|
| Appearance/Description: | Colorless to amber liquid with a pungent odor |
| Color: | Colorless to amber |
| Physical State: | Liquid |
| Odor: | Pungent |
| Odor Threshold: | Not data available. |

General Properties

| | |
|------------------------------------|-----------------------------|
| Boiling Point: | 105°C (221°F) @ 23%-25% |
| Freezing/Melting Point: | -18° to -20°C (-1° to -4°F) |
| Thermal Decomposition: | >105°C (>221°F) @ 23%-25% |
| pH (1 % Solution): | 1.2 |
| Specific Gravity: | 1.2. Water = 1 |
| Bulk Density: | 10.2 lb./gallon |
| Solubility in water: | 100% soluble in water |
| Viscosity: | 6.5 cps |
| Molecular Weight of Pure Material: | 144.11 g/mol |

Volatility

| | |
|--------------------------|--------------------|
| Volatility: | No data available. |
| Vapor Pressure (mm Hg): | 22.5 @ 25°C (77°F) |
| Vapor Density (air = 1): | No data available. |
| Evaporation Rate: | No data available. |

Flammability

| | |
|------------------------------------|-----------------|
| Flash Point: | Not applicable. |
| Flammability/Explosive Limits (%): | Not applicable. |
| Auto-ignition Temperature: | Not applicable. |

Environmental

| | |
|-------------------------------------|--------------------|
| Octanol/Water Partition Coefficient | No data available. |
|-------------------------------------|--------------------|



CERTIFIED TO NSF / ANSI 60

SECTION 10

STABILITY AND REACTIVITY

| | |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity | No data available |
| Chemical Stability: | Stable under recommended conditions of storage, handling and proper use. |
| Possibility of Hazardous Reactions | Corrosive in contact with metals, It may give off hydrogen gas by reaction with metals. |
| Conditions to Avoid: | Avoid thermal decomposition, do not overheat. |
| Incompatible Materials: | Bases, acids, strong oxidizing agents, metals, stoneware and glass. |
| Hazardous Decomposition Products: | Extreme temperatures such as a fire cause formation of highly toxic and corrosive fumes of fluorides such as SiF ₄ and HF. |
| Hazardous Polymerization: | Will not occur. |
| Corrosiveness: | Attacks silica bearing materials, metals, and stoneware |

SECTION 11

TOXICOLOGICAL INFORMATION

GHS Properties

Classification

| | | |
|----------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------|
| Acute Toxicity: | Oral 4: ATE _{mx} (oral) = 1,720 mg/Kg | Oral : LD ₅₀ (oral, rat) 430 mg/kg |
| | Inhalation: No data available. | |
| | Dermal: No data available | |
| Aspiration Hazard | No data available. | |
| Carcinogenicity: | No data available. | |
| Germ Cell Mutagenesis | No data available. | |
| Skin Corrosion Irritation | Causes severe skin burns and eye irritation. Acid with extreme pH ≤ 2. | |
| Serious eye damage/irritation | Causes serious eye damage. Acid with extreme pH ≤ 2. | |
| Skin sensitization | No data available. | |
| Specific Target Organ Toxicity - Single Exposure: | No data available. | |
| Specific Target Organ Toxicity - Repeated Exposure | No data available. | |
| Reproductive Toxicity | No data available. | |
| Respiratory Sensitization | No data available. | |
| Additional information: | The Registry of Toxic Effects of Chemical Substances (RTECS) VV8225000 | |



CERTIFIED TO NSF / ANSI 60

Potential Health Effects

| | |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye | Acute (immediate): Causes serious eye damage. Chronic (Delayed): Repeated or prolonged exposure to corrosive materials may cause conjunctivitis. |
| Skin | Acute (immediate): Causes severe skin burns and eye damage. Chronic (Delayed): Repeated or prolonged exposure to corrosive materials will cause dermatitis. |
| Inhalation | Acute (immediate): May cause corrosive burns Chronic (Delayed): Repeated or prolonged exposure to corrosive fume may cause bronchial irritation with chronic cough. |
| Ingestion | Acute (immediate): Harmful if swallowed. Chronic (Delayed): Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances. |

SECTION 12

ECOLOGICAL INFORMATION

| | | | |
|------------------------------------|----------------------------------------------------------------------------------------------|-------------------------|--------------------------------|
| Toxicity | No data available. | | |
| Persistence and degradability | Not relevant. (Inorganic substance). | | |
| Bio accumulative potential | Log Pow: Not applicable | Log Kow: Not applicable | Bio accumulative potential low |
| Mobility in soil | No data available. | | |
| Results of PBT and vPvB assessment | PBT /vPvB assessment not available as chemical safety assessment not required/not conducted. | | |
| Other adverse effects | No data available. | | |

SECTION 13

DISPOSAL CONSIDERATIONS

Recover or recycle if possible. Keep material in a closed DOT- approved container pending disposal in accordance with all applicable regulations.

Disposal should be in accordance with applicable, regional, national, and local laws and regulations.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste disposal and disposal methods in accordance with applicable regulations.

SECTION 14

TRANSPORT INFO

| | | | | |
|------------------------|------------------------------|--------------------|----------------------|-------------------------|
| Regulatory Status: | USDOT | Canada TDG | IATA | IMO/IMDG |
| Proper Shipping Name: | Fluorosilicic Acid | Fluorosilicic Acid | Fluorosilicic Acid | Fluorosilicic Acid |
| Hazard Class: | Class 8 (Corrosive) | 8 | 8 | 8 |
| Packing Group | II | II | II | II |
| Identification Number: | UN 1778 | UN 1778 | UN 1778 | UN 1778 |
| Emergency Guide No. | 154 | 154 | 8L | EMS-No: F-A, S-B |
| US DOT | Poison Inhalation Hazard: No | | Marine Pollutant: No | Reportable Quantity: No |

Status: Revised
Section(s) Revised: All
Revision Date: 07/13/2015

Page 6 of 7

Issue Date: 07/13/2015
MSDS #: MOS 200011.01



CERTIFIED TO NSF / ANSI 60

SECTION 15

REGULATORY INFORMATION

CERCLA: Not Regulated. Product is not listed with an RQ (Reportable Quantity)

RCRA 261.33: Not Regulated

SARA TITLE III: Section 302/304: Not Regulated Reportable Quantity: No TPQ: No

Section 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No Reactivity: No

Section 313: Not Regulated

TSCA: Listed on TSCA Inventory

Canada DSL: Yes NDSL: No

WHMIS 1988: Fluorosilicic Acid is listed as Class E (Corrosive) and D1B (Toxic material). This SDS has been prepared according to the hazard criteria of the Controlled Product Regulations (CPR) and the SDS contains all of the information required by the CPR.

CA Proposition 65: (Health & Safety Code Section 25249.5) Not listed

SECTION 16

OTHER INFORMATION

NFPA Health: 3 Flammability: 0 Instability: 1 Special Hazard: None

HMIS Health: 3 Flammability: 0 Physical Hazard: 0 PPE: Determined by user.
See Section 8

Disclaimer: The information in this document is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make their own determination as to suitability of the product for their particular purpose and on the condition that they assume the risk of their use thereof. The conditions and use of this product are beyond the control of Mosaic, and Mosaic disclaims any liability for loss or damage incurred in connection with the use or misuse of this substance.

Preparation: The preparation of this SDS was in accordance with ANSI Z400.1-2010.

Revision Date: July 13, 2015

Sections Revised: All

SDS Number: MOS 200011.01

References: Globally Harmonized System of Classification and Labelling of Chemicals (GHS) – 4th Edition 2011
OSHA Hazard Communication Standard, 2012



Mosaic Global Sales, LLC
13830 Circa Crossing Drive
Lithia, FL 33547
PH: 800.578.7891

AFFIDAVIT OF PRODUCT COMPLIANCE

We certify that the Fluorosilicic Acid manufactured and distributed by Mosaic Global Sales, LLC will meet the specifications of AWWA Standard B703-11 and further it has been certified by NSF to meet ANSI/NSF Standard 60 for the treatment of potable water and has been produced within the continental limits of the United States.

A handwritten signature in black ink, appearing to read "G. Navar" or "Gustavo Navar". The signature is fluid and cursive, with a large, stylized initial "G" and a clear "Navar" following it.

Gustavo Navar - FSA Technical Services Manager

NSF International

789 N. Dixboro Road, Ann Arbor, MI 48105 USA

RECOGNIZES

The Mosaic Company

Facility: Riverview, FL

AS COMPLYING WITH NSF/ANSI 60 AND ALL APPLICABLE REQUIREMENTS.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.



ANSI Accredited Program
PRODUCT CERTIFICATION
ACQ 1001
Certification Program
Accredited by the
American National
Standards Institute



Certification Program
Accredited by the
Standards Council
of Canada

This certificate is the property of NSF International and must be returned upon request. This certificate remains valid as long as this client has products in Listing for the referenced standards. For the most current and complete Listing information, please access NSF's website (www.nsf.org).

Theresa Bellish

November 4, 2015
Certificate# 00966 - 02

Theresa Bellish
General Manager, Water Systems