

## **CITY OF OLATHE PRICE AGREEMENT**

THIS AGREEMENT is made in Johnson County, Kansas, by and between the City of Olathe, Kansas, hereinafter "City," and PVS Technologies Inc, hereinafter "Vendor" (each individually a "Party" and collectively, the "Parties"). City needs water and wastewater treatment chemicals, and contracts with Vendor to supply the goods or services described in **Exhibit A**, as needed and as requested by City.

**1. PRICE AGREEMENT, ORDERS, AND TERM.** City agrees to pay Vendor at the prices listed in **Exhibit A** to supply the goods or services described in **Exhibit A**, as needed and as requested by City. City will have no financial obligation under this Agreement until an order has been placed. Any order placed under this Agreement remains subject to any applicable procurement policies of City, including approval by the appropriate authority based on the dollar amount of the order. Any order placed pursuant to this Agreement is subject to all terms and provisions of this Agreement. This contract will be a one (1)-year contract with the option to renew for up to five (5) additional one (1)-year periods upon the written agreement of both parties.

**2. ADDITIONAL SERVICES.** Vendor may provide services in addition to those listed **Exhibit A** when authorized in writing by City.

**3. BILLING.** Vendor may bill City monthly for all completed work and reimbursable expenses. Vendor must submit a bill which itemizes the work and reimbursable expenses. City agrees to pay Vendor within thirty (30) days of approval by the Governing Body or other agent of City in accordance with the City's Procurement Policy. The bill must be mailed to the attention of Account Payable, City of Olathe, PO Box 768, Olathe, KS 66051-0768 or emailed to [apolathe@olatheks.org](mailto:apolathe@olatheks.org). The bill must indicate it is for work or expenses under this Agreement (include Agreement date for identification).

**4. PAYMENT.** If City becomes credibly informed that any representations of Vendor provided in its billing are wholly or partially inaccurate, City may withhold payment of sums then or in the future due to Vendor until the inaccuracy and the cause thereof is corrected to City's reasonable satisfaction.

**5. STANDARD OF CARE.** Vendor will exercise the same degree of care, skill, and diligence in the performance of the work as is ordinarily possessed and exercised by a professional under similar circumstances. If Vendor fails to meet the foregoing standard, Vendor will perform at its own cost, and without reimbursement, any work necessary to correct errors and omissions which are caused by Vendor's negligence.

**6. TERMINATION FOR CONVENIENCE.** City may terminate this Agreement for convenience by providing fifteen (15) days' written notice to Vendor. City will compensate Vendor for all work completed and accepted and reimbursable expenses incurred to the date of its receipt of the termination notice. Compensation will not include anticipatory profit or consequential damages, neither of which will be allowed.

**7. TERMINATION FOR LACK OF FUNDS.** If, for whatever reason, adequate funding is not made available by City to support or justify continuation of the level of work to be provided by Vendor under this Agreement, City may terminate or reduce the amount of work to be provided by Vendor under this Agreement. In such event, City will notify Vendor in writing at

least thirty (30) days in advance of such termination or reduction of work for lack of funds.

**8. DISPUTE RESOLUTION.** The Parties agree that disputes regarding the work will first be addressed by negotiations between the Parties. If negotiations fail to resolve the dispute, the Party initiating the claim that is the basis for the dispute may take such steps as it deems necessary to protect its interests. Notwithstanding any such dispute, Vendor will proceed with undisputed work as if no dispute existed, and City will continue to pay for Vendor's completed undisputed work. No dispute will be submitted to arbitration without both Parties' written approval.

**9. SUBCONTRACTING.** Vendor may not subcontract or assign any of the work to be performed under this Agreement without first obtaining the written approval of City. Unless stated in the written approval to an assignment, no assignment will release or discharge Vendor from any obligation under this Agreement. Any person or entity providing subcontracted work under this Agreement must comply with **Section 11 (Insurance)**.

**10. OWNERSHIP OF DOCUMENTS.** All final documents provided to City as part of the work provided under this Agreement, including but not limited to reports, plans, and related documents, will become City's property except that Vendor's copyrighted documents will remain owned by Vendor. Such documents must be clearly marked and identified as copyrighted by Vendor.

**11. INSURANCE.** Vendor and any subcontractor will maintain for the term of this Agreement insurance as provided in **Exhibit B**.

**12. INDEMNIFICATION AND HOLD HARMLESS.** For purposes of this Agreement, Vendor agrees to indemnify, defend, and hold harmless City, its officers, appointees, employees, and agents from any and all loss, damage, liability or expense, of any nature whatsoever caused or incurred as a result of the negligence or other actionable fault of Vendor, its affiliates, subsidiaries, employees, agents, assignees, and subcontractors and their respective employees and agents. Vendor is not required hereunder to defend City, its officers, appointees, employees, or agents from assertions that they were negligent, nor to indemnify and hold them harmless from liability based on City's negligence. City does not indemnify Vendor.

**13. LIMITATION OF LIABILITY FOR BREACH OF CONTRACT OR NEGLIGENT PERFORMANCE.** Any attempt to limit liability for breach of contract or negligent performance to the amount of the payment to Vendor by City is void. Any attempt to limit Vendor's liability to City for consequential, exemplary, or punitive damages, or any other measure of damages permitted by law, in any action against Vendor for breach of contract is void.

**14. KANSAS ACT AGAINST DISCRIMINATION.** *Unless* Vendor employs fewer than four (4) employees during the term of this Agreement, or *unless* the total of all agreements (including this Agreement) between Vendor and City during a calendar year are cumulatively less than \$5,000, *then* during the performance of this Agreement, Vendor agrees that:

- a. Vendor will observe the provisions of the Kansas Act Against Discrimination (K.S.A. 44-1001 *et seq.*) and will not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, disability, national origin, or ancestry;

- b. in all solicitations or advertisements for employees, Vendor will include the phrase, "equal opportunity employer," or a similar phrase to be approved by the Kansas Human Rights Commission ("commission");
- c. if Vendor fails to comply with the way Vendor reports to the commission in accordance with the provisions of K.S.A. 44-1031 and amendments thereto, Vendor will be deemed to have breached the present contract and it may be canceled, terminated, or suspended, in whole or in part, by City without penalty;
- d. if Vendor is found guilty of a violation of the Kansas Act Against Discrimination under a decision or order of the commission which has become final, Vendor will be deemed to have breached the present contract and it may be canceled, terminated, or suspended, in whole or in part, by the contracting agency; and
- e. Vendor will include the provisions of subsections a. through d. in every subcontract or purchase order so that such provisions will be binding upon such subcontractor or vendor.

**15. KANSAS OPEN RECORDS ACT.** Vendor acknowledges that City is subject to the Kansas Open Records Act (K.S.A. 45-215, *et seq.*). City retains the final authority to determine whether it must disclose any document or other record under the Kansas Open Records Act and the manner in which such document or other record should be disclosed.

**16. ENTIRE AGREEMENT.** This Agreement, including all documents and exhibits included by reference herein, constitutes the entire Agreement between the Parties and supersedes all prior agreements, whether oral or written, covering the same subject matter. This Agreement may not be modified or amended except in writing mutually agreed to by both Parties. No form or document provided by Vendor after execution of this Agreement will modify this Agreement, even if signed by both Parties, unless it: 1) identifies the specific section number and section title of this Agreement that is being modified and 2) indicates the specific changes being made to the language contained in this Agreement.

**17. NO THIRD-PARTY BENEFICIARIES.** Nothing contained herein will create a contractual relationship with, or any rights in favor of, any Third Party.

**18. INDEPENDENT CONTRACTOR STATUS.** Vendor is an independent contractor and not an agent or employee of City.

**19. COMPLIANCE WITH LAWS.** Vendor will abide by all applicable federal, state, and local laws, ordinances, and regulations.

**20. FORCE MAJEURE CLAUSE.** Neither Party will be considered in default under this Contract because of any delays in performance of obligations hereunder due to causes beyond the control and without fault or negligence on the part of the delayed Party, including but not restricted to, an act of God or of a public enemy, civil unrest, volcano, earthquake, fire, flood, tornado, epidemic, quarantine restrictions, area-wide strike, freight embargo, unusually severe weather or delay of subcontractor or supplies due to such cause; provided that the delayed Party must notify the other Party in writing of the cause of delay and its probable extent within ten (10) days from the beginning of such delay. Such notification will not be the basis for a claim for additional compensation. The delayed Party must make all reasonable efforts to remove or

eliminate the cause of delay and must, upon cessation of the cause, diligently pursue performance of its obligation under the Agreement.

**21. APPLICABLE LAW, JURISDICTION, VENUE.** Interpretation of this Agreement and disputes arising out of or related to this Agreement will be subject to and governed by the laws of the State of Kansas, excluding Kansas' choice-of-law principles. Jurisdiction and venue for any suit arising out of or related to this Agreement will be in the District Court of Johnson County, Kansas.

**22. SEVERABILITY.** If any provision of this Agreement is determined to be void, invalid, unenforceable, or illegal for whatever reason, such provision(s) will be null and void; provided, however, that the remaining provisions of this Agreement will be unaffected and will continue to be valid and enforceable.

**23. ORDER OF PRECEDENCE.** If there is any conflict between the terms of this Agreement, excluding exhibits, and anything contained in the exhibits referenced herein or attached hereto, the terms and provisions of this Agreement, excluding exhibits, shall control.

*[The remainder of this page is intentionally left blank.]*

The Parties hereto have caused this Agreement to be executed this \_\_\_\_ day of  
\_\_\_\_\_ 20\_\_\_\_.

**CITY OF OLATHE, KANSAS**

By: \_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk (SEAL)

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney or Deputy/Assistant City Attorney

PVS Technologies Inc

By:   
(INSERT NAME & TITLE) Jeffrey A. Daniel, Vice President  
10900 Harper Avenue  
Detroit, MI 48213

**Exhibit A**  
**Vendor's Proposal**

Item	Description	Unit	Unit Price	Brand
Ferrous Chloride	Bulk truck, approx 4,500 gal shipments	gal	2.64	PVS - NSF Certified
Ferric Chloride, B407-98	Bulk truck, approx 4,000 gal shipments	lb	0.246	PVS Technologies



CITY OF OLATHE, KANSAS  
PROCUREMENT DIVISION  
CITY HALL  
100 E. SANTA FE  
OLATHE, KANSAS 66061

## **INVITATION FOR BID**

### **WATER & WASTEWATER TREATMENT CHEMICALS**

Date of Issuance: **FEBRUARY 13, 2025**

Bid Number: **IFB-25-0020**

Response Deadline Date: **MARCH 13, 2025**

Time: **10:00 A.M.**

Questions regarding this invitation should be directed to [Bonfire](#)  
**The deadline for receipt of questions from bidders is close of business on March 7, 2025.**

Bids must be received electronically by the date and time indicated at [Bonfire](#)

#### **HOW TO COMPLETE THIS DOCUMENT:**

1. Save this document onto your computer before you start filling it out.
2. Use the 'Tab' key to navigate through this document and complete the required fields; fields will expand automatically
3. When you have completed filling in the blanks, attach the saved document to your electronic bid submittal
4. Enter your pricing directly on the website, [Bonfire](#)

☒ Supplier is submitting a firm bid which is not revocable for ninety (90) days.

☐ Supplier is not submitting because \_\_\_\_\_

Bidder's Name: Tanya Lipanovich

Phone No.: 313-319-7868

Company Name: PVS Technologies, Inc.

Fax No.: 313-571-6765

Address: 10900 Harper Avenue

Email: bids@pvschemicals.com

City, State, Zip: Detroit, MI 48213

**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

**INTENT**

It is the intent of this Invitation for Bids (IFB) to establish contracts with qualified vendors to provide water and wastewater treatment chemicals for the City of Olathe, Kansas on an as needed basis.

**RESPONSE DOCUMENTS**

The following documents must be downloaded, completed, and uploaded to [Bonfire](#) to provide a complete bid response package:

- IFB document, all response fields completed
- Certifications for chemicals
- Warranty information

***All pricing must be entered online at [Bonfire](#)***

Bidder proposes to furnish and deliver F.O.B. Olathe, Kansas, the items listed below. Enter your pricing directly on the website at [Bonfire](#). Be sure to include unit price, brand, and model number in each of the available fields for each item. Failure to provide any requested information may result in rejection of your bid.

**INQUIRIES**

Questions regarding this Invitation for Bid must be submitted to [Bonfire](#). **The deadline for receipt of questions from bidders is 5:00PM (CT) March 7, 2025.** No further questions or clarifications will be provided after that date. Answers to all questions will be posted on Bonfire website.

**No communication regarding this IFB should be directed to any other City official or employee. All queries will be responded to in the form of written addenda and posted [Bonfire](#).**

Bidders shall include confirmation of the receipt of any addenda with their bids. Failure to do so could result in your bid being deemed non-responsive.

**PRICING**

**Bidder proposes to furnish and deliver items ordered from this bid F.O.B. Olathe, Kansas. Pricing shall include all travel, shipping, freight, surcharges and handling costs.** Bidder signifies that they have read all bid documents and are providing detailed, expressed warranties with this bid. It shall be unacceptable for any bidder to make the statement "see specifications" instead of listing all exceptions and additions in the specifications of this bid documents.

Bidders shall enter unit pricing on [Bonfire](#) where indicated. Specific response instructions are provided on the website under "Bid Response Instructions." Failure to provide any requested information may result in rejection of your bid.

**EVALUATION CRITERIA**

The award will be made to the lowest most responsive and responsible bidder, which will be judged on the basis of price, conformance to specifications, past experience providing like work, proposed completion time, past vendor performance, quality of product, payment terms, references, and in the best interest of the City of Olathe, all factors being considered. The City reserves the right to award this bid in whole or in part.

**CITY ORDINANCE #3.50.140 - LOCAL PREFERENCE STANDARDS**

For supplies, materials, and equipment acquired through bids, where an award is to be made to the lowest responsive and responsible bidder, a bid from a local business may be selected over the lowest responsive and responsible bid only if:

- A. The bid from the local business is responsive and responsible.
- B. The quality, suitability, and usability of the supplies, materials, and/or equipment are equal to that of the lowest responsible bidder; and



**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

- C. The amount of the bid of the local business does not vary more than two percent (2%) and does not exceed Five Thousand Dollars (\$5,000) above the amount of the lowest responsible bid. Such variance shall be calculated based on the total contract price.

The local preference described in this Section shall not apply to bids in which federal funds or other governmental funds are used when the use of such funds prohibits the application of local preference policies.

**INVOICING**

Invoice submitted for payment must be completely itemized to include a detailed breakdown of all items. Invoice must not exceed original bid unless prior authorization has been given by the department supervisor or their designee. The invoice shall be mailed to the attention of Accounts Payable, PO Box 768, Olathe KS 66051-0768 or emailed to: [apolathe@olatheks.org](mailto:apolathe@olatheks.org).

**PAYMENT TERMS**

☒ Net 30 days      ☐ Other: \_\_\_\_\_

Will your company accept the City's VISA P-Card for payment without additional cost? Yes \_\_\_\_\_ No: ☒

**CONTRACT TERM**

The term of this contract will be for five (5) years from date of award. Prices quoted must be firm for an initial (12) month period. If funds are no longer available to support continuation of the contract, the contract shall be cancelled at the discretion of the City.

**ESCALATION/DE-ESCALATION CLAUSE**

In the event prevailing market conditions warrant an adjustment in contract pricing, refer to Item 39 of the Instructions to Bidders.

**COOPERATIVE PURCHASING BY OTHER INSTITUTIONS UNDER THIS CONTRACT**

If the City of Olathe awarded you the proposed Contract, you hereby agree to sell, under the prices and terms of this Contract, to any Municipal, County, Public Utility, Hospital, or Educational Institution having membership in an affiliated chapter of the National Institute of Governmental Purchasing (NIGP) and located within the Greater Kansas City Metropolitan Trade Area? (All deliveries are to be F.O.B. Destination and there shall be no obligations on the part of any member of such chapter to utilize this Contract).

(Check One) Yes ☒ No \_\_\_\_\_ Minimum order if, applicable \$ Not Applicable  
Pricing for cooperative purchases will remain in effect through first 12 months

**REFERENCES**

Bidder shall provide a minimum of three (3) references which shows experience in providing water & wastewater chemicals in the past three (3) years. A reference form is included online with bidding documents. Failure to complete the requested information could result in the rejection of your bid.

**PRICE AGREEMENT AND ORDERS**

A price agreement will be issued to the successful vendor(s) by the Procurement Manager, which will authorize City personnel to issue department purchase orders for actual quantities required. All invoices for orders shall indicate the department purchase order number for identification and payment purposes.

**WARRANTY**

The City requires a minimum one-year warranty on all commodities purchased. Failure to provide warranty information is grounds for possible rejection of your bid.

State the terms of your warranty: \_\_\_\_\_

Comply \_\_\_\_\_ Exception: ☒ Warranty does not apply to chemical commodities

**ESTIMATED QUANTITIES**

The quantities indicated on the online bid form are the City of Olathe's estimated annual usage only. The contract shall be binding only for the actual quantities ordered during the contract period.

**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

Comply ✓ Exception: \_\_\_\_\_

**CITY OF OLATHE, KS INSURANCE REQUIREMENTS**

- A. Contractor shall procure, and maintain as required, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the project. The cost of such insurance shall be included in the Contractor's bid
- B. Contractor shall maintain the following coverages and minimum limits.
1. Commercial General Liability: [ISO "occurrence" form or its equivalent] \$1,000,000 per occurrence limit and products - completed operations limit. Any general aggregate limit should be at least \$2 million.
  2. Business Auto Coverage: (*Owned, hired, and non-owned autos*) \$1,000,000 per occurrence limit including Pollution Liability / Accidental Environmental Damage, including Cost of Cleanup.
  3. Workers Compensation and Employers Liability: Workers' compensation limits as required by the statutes of the state of Kansas and employers' liability limits of \$500,000/\$500,000/\$500,000. When workers compensation insurance policy is applicable "other states" coverage is required.
  4. Umbrella Liability: minimum limit of \$1,000,000.
  5. Coverage Limits. Coverage limits for General and Auto Liability exposures may be met by a combination of primary and umbrella policy limits.
  6. Exposure Limits: The above are minimum acceptable coverage limits and do not infer or place a limit on the liability of the Contractor nor has the City assessed the risk that may be applicable to Contractor. Contractor shall assess its own risks and if it deems appropriate and/or prudent maintain higher limits and/or broader coverages. The Contractor's insurance shall be primary, and any insurance or self-insurance maintained by the City shall be excess and not contribute with the coverage maintained by Contractor.
- C. Additional Insured. The City shall be listed by ISO endorsement or its equivalent as additional insured for the project. Any and all coverage available to the named insured is applicable to the additional insured. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- D. Verification of Coverage.
1. A certificate of insurance accompanied by an additional insured ISO form endorsement (CG 20 10; and CG 20 37) or equivalent effecting the coverage required by the City which includes products and completed operations.
  2. The insurance coverages are to be provided by Kansas admitted insurance companies with a Best's rating of at least A-:VII. Those not admitted must be approved by City.
  3. Any self-insurance or self-insured retentions must be specified on the certificate of insurance. In addition, when self-insured the name, address, and telephone number of the claims office must be indicated on the certificate or separate attached document. Any and all deductibles or self-insurance in the above describes coverages shall be the responsibility and at the sole risk of the Contractor.
  4. The commercial general liability policy shall not contain an endorsement excluding contractual or completed operations liability.
  5. When any of the foregoing insurance coverages are required to remain in force after final payment, additional certificates with appropriate endorsements evidencing continuation of such coverage shall be submitted along with the application for final payment.
  6. Any coverage provided by a Claims-Made form policy must contain a three-year tail option, extended reporting period, or must be maintained for three years post contract.
- E. Cancellation. Each insurance policy required shall not be suspended, voided, or canceled; except after thirty (30) days' advance written notice has been given to the City.
- F. Subcontractors. All coverages for subcontractors shall be subject to all of the requirements stated herein.

CITY OF OLATHE, KS  
IFB-25-0020  
WATER & WASTEWATER TREATMENT CHEMICALS

**SPECIFIC REQUIREMENTS:**

**SHIPPING**

Standard delivery must be made within two (2) days after receipt of order, unless otherwise stated in this IFB. Emergency orders must be delivered within eight (8) hours after receipt of order, except where otherwise indicated. The successful contractor(s) are expected to retain stock of the items on the contract. If item is out of stock, the successful contractor shall inform the City's requester at the time the order is placed and provide an alternative delivery date. Continuous stock outs will be considered to be a default on the contract.

Comply ✓ Exception: \_\_\_\_\_

**DELIVERY**

Chemicals shall be shipped F.O.B. Olathe, KS and Lenexa, KS. **All freight, handling, and delivery charges, fuel surcharges, etc. shall be included in the bid price.**

The successful contractor(s) will be responsible for delivery of all items awarded on this bid. The successful contractor(s) shall also be responsible for unloading bulk deliveries of quicklime and liquid chemicals. The City shall be responsible to assist with unloading chemicals in bags, totes or drums for the Water Production and Wastewater Treatment Divisions. The successful contractor's delivery driver shall be responsible to assist with loading all empty 55-gallon drums, totes, and empty pallets. All drums and totes must be returnable to the vendor.

The City of Olathe will not accept the responsibility of empty chemical containers; all empty 55-gallon drums, totes, and empty pallets shall be returned to the successful contractor(s). Empty drums or totes shall be returned with each new order of chemical or the successful contractor will be contacted to pick up returnable empty containers. Any successful contractor that does not pick up empty containers left at the City for more than 30 days will be charged a late pickup fee of \$10.00 per day per container until the containers are picked up. The late fees will be deducted from the successful contractor's invoice.

All shipments received must be in the container size specified on the bid. Where indicated to provide chemicals in "totes" the vendor will provide standard size Intermediate Bulk Containers (IBC's) that include all necessary accessories. Accessories shall include, but not be limited to provisions for handling of the IBC by forklift, a vented lid, ball valve and quick connect on the discharge of the IBC. All drum deliveries will come bundled on a pallet suitable for handling with a forklift. Items received in a frozen condition **will not** be accepted. The successful contractor shall be responsible for cleanup of spills or leaks during delivery.

An authorized City employee shall indicate the designated storage location of the items being delivered. The successful delivery contractor's delivery driver shall verify the chemical is being offloaded into the correct tank based on signage at the delivery location. The successful contractor shall deliver and unload bulk materials in a safe and timely manner. Faulty delivery equipment or poorly trained personnel may result in rejection of delivery.

**The City reserves the right to sample any chemical prior to accepting the delivery. If any sample does not conform to the specifications, the City has the right to reject the delivery without any costs to the City.** A Certificate of Analysis representative of the load being delivered shall be furnished to the Plant Control Operator prior to unloading each load of ammonia, fluorosilicic acid, polyphosphate, sodium hypochlorite, ferric sulfate, hydrochloric acid, sodium chlorite, ferrous chloride, carbon dioxide, ferric chloride, or quicklime. In addition, a sample of quicklime shall be furnished by the contractor to the Plant Control Operator for each load delivered prior to unloading. The sample must be representative of the load and shall be taken immediately prior to unloading the truck.

The Plant Control Operator will verify chemical by receiving the bill of lading, receiving the Certificate of Analysis (if required), receiving a sample of the product (if required), verify chemical delivered, verify location of delivery, take off the coupler to the fill line, and receive any other documentation required. Connections to all chemical fill lines will be verified by the contractor.

**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

**All deliveries of chemicals shall be made between the hours of 7:00 AM and 3:00 PM on the date requested.** Delivery outside specified hours on the date requested may be refused or unloading may be delayed until after 7:00 AM the following workday (Monday through Friday), at no additional cost to the City. **If there is to be a delivery delay for whatever reason to Olathe Water Plant, the Plant Control Operator shall be notified.**

Comply ☒ Exception \_\_\_\_\_

**CITY OF OLATHE, KS DELIVERY SITES**

- |    |   |   |
|----|---|---|
| 1. | Olathe Water Plant (WP)                         | 27065 W. 83 <sup>rd</sup> Street<br>(2 ½ miles West of K-7 Hwy)<br>Lenexa, KS 66227 |
| 2. | Harold Street Wastewater Treatment Plant (WWHS) | 200 W Harold Street<br>Olathe, KS 66061   |
| 3. | Cedar Creek Wastewater Treatment Plant (WWCC)   | 25915 W 119 <sup>th</sup> St<br>Olathe, KS 66061                                    |

**SECURITY**

WP and WWCC have an intercom located at the front gate. Delivery person shall follow the instructions provided via the intercom for delivery of product. Access to the facility will be granted only after the chemical vendor has been satisfactorily identified with proper identification. All chemical vendors must sign in and out. No unauthorized persons shall be allowed to enter the plant areas unless escorted by a City of Olathe representative.

**CERTIFICATIONS**

All chemicals delivered to the Olathe Water Plant, with the exception of ammonia, shall be NSF (National Sanitation Foundation) listed for use in drinking water/potable water applications. All chemicals delivered to Harold Street Wastewater Treatment Plant and Cedar Creek Wastewater Treatment Plant shall be UL (Underwriters Laboratories) listed. Ammonia shall meet National Research Council Codex for Ammonium Hydroxide. The bidder's Sodium Hypochlorite solution must be approved and registered with EPA for use in potable water systems and shall be manufactured in the USA. Bidder's own EPA registration MUST be included with your bid submittal as a separate attachment when you upload your bid documents on [Bonfire](#).

Bidders are **REQUIRED** to submit a detailed specification, typical analysis, material certification and MSD sheets for each item bid, in addition to an affidavit that the product(s) complies with the latest applicable requirements of the AWWA and NSF standard specified. The most current MSD sheets for each bid item MUST be included with the bid. If the MSD sheet revised- or reviewed-date is more than one year prior to the bid date, bidder MUST submit a statement on its company letterhead that the submitted MSD sheet is the most current available for the product. **Failure to submit this information may result in rejection of bid.**

Comply ☒ Exception \_\_\_\_\_

**NO SUBSTITUTES**

**The words "NO SUBSTITUTES" means that the City has standardized on a brand or type of chemical and will not accept substitutions.**

**DETAILED SPECIFICATIONS**

Bidders are required to document the specifications in the space provided by completing the requested information and indicating comply, not comply, or entering an explanation in the exception field. Failure to complete this information is grounds for rejection of bid. Pricing for all chemicals shall be entered on the online bid form at [Bonfire](#). Bidders are requested to retain a copy of these specifications for future reference.

1. **AMMONIA/WP:**

Ammonium Hydroxide (aqua ammonia) shall meet AWWA Standard B306, latest revision, and the National Research Council Codex for Ammonium Hydroxide 20.4° – 20.9° baume, 19% Aqua Ammonia – Bulk truck delivery (approximately 13-14 tons). CAS Number 1336-21-6

CITY OF OLATHE, KS  
IFB-25-0020  
WATER & WASTEWATER TREATMENT CHEMICALS

Comply \_\_\_\_\_ Exception **NO BID**

2. **CARBON DIOXIDE/WP:** Meet AWWA standard B510, latest revision; meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects, deliver in bulk by truck in approximately 22-ton shipments. No less than 99.5% Carbon Dioxide by weight. CAS Number 124-38-9

Comply \_\_\_\_\_ Exception **NO BID**

3. **CAUSTIC SODA/WP:** Meet AWWA standard B501, latest revision; meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; 50% solution, diaphragm or membrane grade, deliver in 55-gallon drums.

Physical/Chemical Properties

CAS Number 1310-73-2

Specific Gravity (water = 1) 2.13 at 20°C

Completely soluble in water, Clear to opaque liquid with no distinct odor

Comply \_\_\_\_\_ Exception **NO BID**

- 4, 5, and 6. **CITRIC ACID/WP:** Meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; deliver in 55-gallon drums, 330-gallon totes, or approximately 2,500-gallon shipments.

Physical/Chemical Properties

CAS Number 77-92-9

Citric Acid 48-50%, Water 48-50%

Kosher/Food Grade

PH < 2.5

Arsenic < 1 ppm

Heavy Metals < 5 ppm

Tridodecyclamine < 0.1 ppm

Liquid, clear white to medium yellow

Specific Gravity 1.238 @ 63°F

Comply \_\_\_\_\_ Exception **NO BID**

7. **FERRIC SULFATE/WP:** Meet AWWA standard B406, latest revision; meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; deliver in bulk by truck in 4,000-gallon shipments.

Physical/Chemical Properties

CAS Number 10028-22-5

Specific Gravity 1.58-1.60

% Ferric Sulfate 59% or >

Red-Brown solution with no odor

Comply \_\_\_\_\_ Exception **NO BID**

8. **FLUOROSILIC ACID/WP:** Meet AWWA standard B703, latest revision; meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; deliver in bulk by truck in approximately 4,500-gallon shipments. No less than 23% H<sub>2</sub>SiF<sub>6</sub> by weight. Acid shall be completely soluble in water and heavy metal content shall not exceed 20 ppm.

CAS Number 16961-83-4

Comply \_\_\_\_\_ Exception **NO BID**

9. **POLYPHOSPHATE/WP:** Meet AWWA standard B502, latest revision; meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; deliver in bulk by truck in 3,500 to 4,000-gallon shipments. No less than 32% Polyphosphate content (as PO [4]).

CAS Number 10124-56-8

Comply \_\_\_\_\_ Exception **NO BID**

**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

10. **QUICKLIME/WP:** Meet AWWA standard B202, latest revision; meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; state percentage of available calcium oxide, state particle size distribution, deliver in bulk by truck in approximately 22-ton shipments, 3/8" and under-particle size CAS Number 1305-78-8.

*Delivery Time:*

*Normal Conditions – 48 hours*

*Emergency – 24 hours*

**Physical Analysis**

Minus	0.375"	100%
Minus	100 Mesh	15% Max.
Minus	8 Mesh	0%

The maximum limit on insoluble matter is 7%

Range (%) of available CaO (90% min.) \_\_\_\_\_ to \_\_\_\_\_

Average (%) of available CaO (90% min.) \_\_\_\_\_

Temperature must rise at least 40°C in 3 minutes or less (when mixing 100 grams of lime with 400 ml of water with an initial temperature of 26°C). When the quicklime is mixed with water at 25°C the pH shall be a minimum of 12.45.

Comply \_\_\_\_\_ Exception **NO BID**

11. **SODIUM BISULFITE/WP/WW:** Deliver in 55-gallon drums, 1-2 drums per shipment

**Physical/Chemical Properties**

CAS Number 7631-90-5

Sodium Bisulfite 35-44% by weight

Specific Gravity 1.33

Comply \_\_\_\_\_ Exception **NO BID**

12. **SODIUM HYPOCHLORITE/WP:** Meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; meet AWWA standard 303, latest revision, deliver in bulk by truck in 4,500-gallon shipments.

**Physical/Chemical Properties**

CAS Number 7681-52-9

10-15% by weight

Specific Gravity 1.115-1.173

Delivered pH 11-13

Soluble in water, clear yellow, chlorine bleach odor

Iron < 0.3 mg/l, Nickel < 0.03 mg/l, Chlorate < 1,500 mg/l

Bromate < 20 mg/l; Copper < 0.03 mg/l, Insoluble material less than 0.15% by weight

Shipments delivered shall achieve a filtration rate of < 3 minutes for 1000 ml when applying the "Suspended Solids Quality Test for Bleach using Vacuum Filtration"

Minimum of 0.1% by weight Sodium Hypochlorite and maximum of 0.4% by weight Sodium Hydroxide

The City reserves the right to sample and test Sodium Hypochlorite deliveries to ensure the chemical's conformance with requirements specified herein in addition to other applicable EPA/AWWA specifications and standards. Failure to comply with these specifications/standards shall constitute grounds for rejection of deliveries and repeated failures may result in cancellation of the contract.

Comply \_\_\_\_\_ Exception **NO BID**

13. **HYDROCHLORIC ACID 15%/WP:** Meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; aqueous solution of 15% by weight; deliver in bulk by truck in 4,500-gallon shipments.

CAS 7647-01-0

Comply \_\_\_\_\_ Exception **NO BID**

14. **SODIUM CHLORITE 25%/WP:** Meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; deliver in bulk by truck in 4,500-gallon shipments.

**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

Physical/Chemical Properties

CAS 7758-19-2

pH: 12.0 to 12.3

Specific Gravity 25% Sodium Chlorite Solution: 1.21 – 1.22 (10.2 lbs per gallon)

Freezing Point: 0 to 4°C

Solubility in Water – Soluble

Clear to pale yellow liquid with a faint bleach odor

Comply \_\_\_\_\_ Exception **NO BID**

15. **FERROUS CHLORIDE/WP:** Meet ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects; deliver in bulk by truck in 4,500-gallon shipments.

Physical/Chemical Properties

Alternate Name Iron (II) Chloride

CAS Number 7758-94-3 (Ferrous Chloride) 7647-01-0 (Hydrochloric)

> 28% Ferrous Chloride

11.6%-13.1% Fe<sup>2+</sup>

< 5% Hydrochloric Acid

Specific Gravity 1.18-1.40

pH <2

Infinitely soluble in water, light green liquid, acidic odor

No more than 0.05% insoluble matter

The City reserves the right to sample and test Ferrous Chloride deliveries to ensure the chemical's conformance with requirements specified herein in addition to other applicable EPA/AWWA specifications and standards. Failure to comply with these specifications/standards shall constitute grounds for rejection of deliveries and repeated failures may result in cancellation of the contract.

Comply ✓ Exception \_\_\_\_\_

16. **FERRIC CHLORIDE/WWCC/WWHS:** Meet AWWA standard B407, latest revision; deliver in bulk by truck in 4,000-gallon shipments. Shipments will need to be split between both facilities.

Physical/Chemical Properties

CAS Number 7705-08-0

Specific Gravity 1.39-1.49

% Ferric Chloride 37% - 45%

Dark Red-Brown solution with no odor

Comply ✓ Exception \_\_\_\_\_

CITY OF OLATHE, KS  
IFB-25-0020  
WATER & WASTEWATER TREATMENT CHEMICALS

**CITY OF OLATHE, KANSAS  
PROCUREMENT DIVISION**

**INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS**  
(Revised 12/24)

1. **SCOPE:** These instructions to bidders and general conditions apply to solicitations for material, equipment, supplies or services with an estimated single or combined cost of \$100,000.00 or more. These conditions shall be in force unless otherwise modified by the City in this bid document. Bidders shall be advised that the City of Olathe is not responsible for the content of any bid package received through any 3<sup>rd</sup> party bid service other than Merrell Source to Contract. It is the sole responsibility of the vendor to ensure the completeness of the documents received from any 3<sup>rd</sup> party source other than Merrell Source to Contract.
2. **DEFINITIONS (AS USED HEREIN):**
  - a. The term "Invitation For Bid" means a solicitation of formal sealed bids with a combined or single unit value \$100,000.00 and over. The acronym "IFB" means Invitation For Bid.
  - b. The term "Quick Quote" means a solicitation of informal bids with a combined or single unit value between \$10,000.00 and \$99,999.00. The acronym "QQ" means Quick Quote.
  - b. The term "bid" means the offer by the bidder.
  - c. The term "bidder" means the person or organization responding to the solicitation.
  - d. The term "contractor" means a person or organization who is the successful bidder and who enters into a contract with the City.
  - e. The term "change order" means a written order from the Procurement Manager directing the contractor to make changes to a contract.
  - f. The term "City" means the City of Olathe, Kansas.
  - g. The term "City Council" means the governing body of the City of Olathe.
3. **PREPARATION OF BIDS:** Bidders shall review the specifications, drawings, and all special and general conditions. Failure to do so will be at the bidder's risk.

Each bidder shall furnish the information required in the solicitation. The bidder shall provide their name, address, e-mail address, and telephone number where indicated in the affidavit of the solicitation documents. The affidavit must be signed by an officer or employee having the authority to bind the company or organization by his/her signature, notarized, and uploaded with bid response on [Bonfire](#).

Unit price for each unit offered must be provided. The unit price will be presumed correct.

The bidder must state a definite time for delivery of supplies or performance of services.

4. **SUBMITTING A BID:** Bids must be received electronically in the sealed lockbox at [Merrell Source to Contract](#) BEFORE the time of opening indicated in the solicitation. All references to time shall be Olathe, Kansas time (Central time zone). Hard copy (paper) bids will not be accepted. Late bids will be rejected. Any exceptions or additional information required on a solicitation will be noted in the bid documents. Failure to provide any requested information or to follow these procedures may result in the rejection of your bid.
5. **BID DOCUMENT MISTAKES:** (Kansas Statutes K.S.A. 75-6901 through 75-6906). The bidder shall not be allowed to modify or correct mistakes in the bid document after the opening of the bid. Failure to complete the entire bid accurately may result in declaring the bid as non-responsive and the bid may be rejected.

Bids may not be withdrawn after the bid opening time and date if a bid mistake is based upon an error in judgment. If a nonjudgmental mistake, such as a math error, is suspected by the City or the bidder, the bidder shall respond within two (2) business days of the bid opening with a request for the City to consider verification of the mistake. Once a bid has been verified, it shall be considered submitted as verified. The City shall permit a bidder to withdraw its bid without penalty or forfeiture of bid security if: (a) a nonjudgmental mistake is evident on the face of the bid, or (b) the bidder establishes by clear and convincing evidence that a nonjudgmental mistake was made.

If multiple bids are received from the same vendor, the City will either consider only one of the bids from that vendor, or reject all bids from that vendor, at the sole discretion of the City.



**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

6. **ACCEPTANCE OF OFFER:** The submitted bid is considered an offer on the part of the bidder; such offer is deemed accepted upon issuance by the City of a Purchase Order, Price Agreement, or other contractual document.
7. **FIRM PRICES:** By submitting the bid, bidder signifies that the prices, terms and conditions quoted in their bid will be firm for acceptance for a period of not less than ninety (90) days from the bid opening date unless otherwise specified in the solicitation. Prices quoted must remain firm for the period of performance of any resulting purchase order or contract to be performed over a specified period of time as indicated in the solicitation.
8. **CONTRACT RENEWAL:** The City reserves the right to renew any contract resulting from this solicitation at the same prices, specifications, terms and conditions, upon mutual agreement between the City and the contractor.
9. **ESTIMATED QUANTITIES:** Whenever a bid requests prices to be firm for a period of performance, the quantities or usages shown are estimated only with no guarantee made by the City. The quantities are for the bidder's information only, and the City will be bound only for actual quantities ordered.
10. **DISCOUNTS:** Cash discounts will be considered in determining the award. Unless otherwise indicated in the IFB, discounts offering 10 days or more will be taken by the City's Accounts Payable Division, with payment made on the nearest pay period after receipt, inspection and acceptance of articles, and receipt of correct invoice(s).
11. **SAMPLES:** Samples of items, when required, must be submitted within the time specified at no expense to the City. If not destroyed by testing, samples may be returned at the bidder's expense unless otherwise indicated in the solicitation.
12. **AWARD:** Award will be made to the lowest most responsive and responsible bidder, which will be judged on the basis of price, conformance to specifications, quality, delivery time, references, payment terms, and in the best interest of the City of Olathe, all factors being considered.

The City reserves the right to accept or reject any or all bids or part of bids, to waive irregularities and technicalities, and to request rebids on the material described in the solicitation.

The City reserves the right to award the contract on a split-order basis, lump-sum or individual-item basis, or any other combination that is in the best interest of the City unless otherwise specified.

Conditional bids are subject to rejection in whole or in part at the sole discretion of the City.

No order or contract resulting from this solicitation may be assigned, transferred, or delegated to another party without written approval of the Procurement Manager of the City.

13. **BRAND NAMES:** If brand names, make, name of any manufacturer, trade name, or vendor catalog number are specified in these bid documents, it is for the purpose of establishing a grade or quality of material only. When the City does not wish to rule out other brands or makes, the phrase OR EQUAL is added. However, if a product other than that specified is bid, it is the bidder's responsibility to identify such product in their bid and prove to the City that the product is equal to or better than the product specified. Unless otherwise indicated, evidence in the form of samples may be requested if the proposed brand is other than that specified by the City. Such samples are to be furnished as specified in the solicitation or upon request of the City. Any samples requested by the City must be received by the City no later than four (4) days after formal request is made.
14. **VARIATIONS OF SPECIFICATIONS:** For purposes of evaluation, bidder must indicate any variances from any provision, specification, or condition stated in this solicitation, no matter how slight. If bidder does not indicate any variations, it will be assumed that the product or service fully complies with the provisions, specifications, or conditions as stated. If satisfactory bids are not received, the City reserves the right to consider alternate bids containing deviations from stated specifications.
15. **QUALITY:** Unless otherwise identified in the solicitation, all materials used in the manufacture or construction of supplies, materials or equipment covered by this solicitation shall be new. The items bid must be the latest make or model in current production, as offered to commercial trade, and of the highest quality material and workmanship. Used, shopworn, demonstrator, prototype, or discontinued models are not acceptable.
16. **ECO-FRIENDLY (GREEN) PRODUCTS:** The City of Olathe supports the use of products that are ecologically friendly to the environment. Bidders are urged to include information with their bid submittal that describes the human health and environmental impact of products proposed. This eco-friendly approach takes into account, but is not limited to, waste production, energy and water use, greenhouse gas emissions, indoor air quality,

**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

recycled and reused content and packaging, and the presences of hazardous substances. Prime consideration will be given to these eco-friendly products when compared to mainstream products in cost and packaging.

17. **MATERIAL SAFETY DATA SHEET (MSDS):** It is mandatory for a manufacturer, supplier, or distributor of hazardous material to supply an MSDS as required by 29CFR 1910.1200 with the first shipment. Any time the content of an MSDS is revised, the vendor is required to provide a new MSDS to the City.
18. **ACCEPTANCE OF MATERIAL:** The material delivered under this bid shall remain the property of the seller until a physical inspection and actual usage of this material and/or service is made and is accepted by the City. It must comply with the terms of this IFB, and fully comply with specifications, and be of the highest quality. In the event the material and/or services supplied to the City is found to be defective or does not conform to specifications, the City reserves the right to cancel the order upon written notice to the contractor and return product to contractor at the contractor's expense.
19. **CODES AND REGULATIONS:** All products supplied, and work performed, within the scope of this request shall be supplied by the successful bidder to all applicable current prevailing codes and regulations.
20. **DELIVERY:** Bidders must indicate the number of calendar days required to make delivery after receipt of a purchase order. Delivery time may be considered in making an award. The City reserves the right to cancel any order, or any part of that order, without obligation if delivery is not made within the time(s) specified on the bid form.

The City may grant additional time for delivery if the City is satisfied the delay is beyond the control of the vendor. Any request for time extension must be in writing and approved by the City's authorized representative.

All deliveries are to be FOB Destination to the location listed on the purchase order or price agreement unless otherwise specified. Bidders may be requested to provide separate pricing for delivery of all items in this solicitation.

21. **THIRD PARTY FREIGHT SERVICE:** The City of Olathe may, at its discretion, use a third party freight service to arrange for delivery of the goods ordered as a result of this solicitation. In this case, the freight terms will be FOB Destination/Third Party Prepaid.
22. **PRICE CHANGES ON CONTRACTS:** If this solicitation is for an estimated quantity of supplies, consideration in awarding bid for yearly contracts will be given:
  - First to bidder offering firm prices for full contract period; and
  - Second to bidder offering firm prices subject to market price adjustment.
23. **COPYRIGHT OR PATENT RIGHTS:** By submitting the bid, bidder signifies that there has been no violation of copyrights or patent rights in manufacturing, producing or selling the goods shipped or ordered as a result of the bid, and bidder agrees to hold the City harmless from any and all liability, loss, or expense caused by any such violation.
24. **CONFLICT OF INTEREST:** The contractor, by signing the affidavit form in the solicitation or by acceptance of any purchase order resulting from this solicitation, certifies that to the best of their knowledge or belief, no elected or appointed official of the City is financially interested, directly or indirectly, in the purchase of the goods or services specified on this order or in the contract.
25. **TAXES:** The City of Olathe is exempt from any taxes imposed by the State and/or Federal Government. Exemption certificates will be provided upon request; Kansas Tax Exempt No. KS6XLFHVA1, exp 10/01/2028.
26. **MANUFACTURER'S CERTIFICATION:** The City reserves the right to request from bidders a separate manufacturer certification of all statements made in the bid. Failure to provide any requested certification may result in rejection of bid or termination of contract for which the bidder must bear full liability.
27. **PERSONNEL PRACTICES:** Successful bidder must comply with K.S.A., 44-1030 et. seq. mandatory provisions of the Kansas Acts Against Discrimination as applied to state and local government contracts, which: (1) prohibits discrimination against any person in the performance of work under this contract because of race, religion, color, sex, national origin or ancestry; (2) requires solicitations or advertisements for employees to include the phrase "equal opportunity employer"; and (3) allows the City to terminate their contract for default if provisions of the act are violated.

Chapter 2.44 of the Olathe Municipal Code also prohibits discrimination against individuals in the performance of this contract as a matter of concern to the City, since such discrimination threatens not only the rights and

**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

privileges of the inhabitants of the City, but menaces the institutions and foundations of a free democratic state. The affirmative action program is designed to insure a good faith effort will be made to employ applicants and to treat employees during employment equally without regard to race, color, creed or religion, physical handicap, national origin or sex.

All bidders who are awarded a Class I Contract (\$25,000 or more in aggregate) are required to complete a Questionnaire on Personnel Practices for the City of Olathe, 200 West Santa Fe, Olathe KS 66061, 913-971-6493. Form must be completed and approved by the City before contract for goods or services is in effect.

The City of Olathe actively supports the Immigration & Nationality Act (INA) which includes provisions addressing employment eligibility, employment verification, and nondiscrimination. Under the INA, employers may hire only persons who may legally work in the United States (i.e. citizens and nationals of the U.S.) and aliens authorized to work in the U.S. The employer must verify the identity and employment eligibility of anyone to be hired, which includes completing the Employment Eligibility Verification Form (I-9). The contractor shall establish appropriate procedures and controls so no services or products in response to this IFB will be performed or manufactured by any worker who is not legally eligible to perform such services or employment.

28. **TERMINATION:** Subject to the following provisions, any contract resulting from this solicitation may be terminated by either party upon thirty (30) days advance written notice to the other party; but if any work or service is in progress but not completed as of the date of termination, then said contract may be extended upon written approval of the City until said work or services are completed and accepted. Types of termination include:
1. Termination for Convenience  
In the event that the contract is terminated or cancelled upon request and for the convenience of the City, without the required thirty (30) days advance written notice, then the City shall negotiate reasonable termination costs, if applicable.
  2. Termination for Cause  
Termination by the City for cause, default or negligence on the part of the contractor shall be excluded from the foregoing provision; termination costs, if any, shall not apply. The thirty (30) days advance notice requirement is waived in the event of termination for cause.
  3. Termination Due to Unavailability of Funds  
When funds are not appropriated or otherwise made available to support continuation of performance, the contract shall be cancelled at the discretion of the City.
29. **W-9 REQUIREMENT:** The City of Olathe requires a Form W-9 (Request for Taxpayer Identification Number and Certification), updated annually, from all contractors that do business with the City of Olathe. The Form W-9 verifies the Tax Identification Number of the contractor so the City can correctly report to the IRS all funds paid to the contractor. A W-9 Form must be completed as a part of the vendor registration process on Merrell Source to Contract. Form W-9 can also be found at <http://www.irs.gov/pub/irs-pdf/fw9.pdf>. Payment shall not be made to contractor without a current W-9 form being filed with the City of Olathe.
30. **DEFAULT OF CONTRACT:** In case of default by the contractor, the City may procure the items or services from other sources and hold the contractor responsible for any excess costs caused by such procurement. Failure of a bidder to furnish the equipment, supplies, material, and/or services as specified is cause for elimination of the bidder from the active bidder's list for the products or services concerned.
31. **BID BOND:** If required in this solicitation, bidders shall include a bid guarantee in the form of a bid bond, certified check, cashier's check in the amount of five percent (5%) of the base bid, payable without condition to the City of Olathe. Personal or company checks are not acceptable. The bid bond shall be accompanied by a power of attorney showing the authority of the person executing the bond on behalf of the surety company. Failure to include a bid bond or bid guarantee request with your bid submittal may be cause for rejection of your bid. Bid guarantees (submitted by certified or cashier's checks) will be returned to unsuccessful bidders when the successful bidder is determined, and the contract is executed.
32. **PERFORMANCE BOND:** At the discretion of the Procurement Manager, a performance bond may be required under the contract resulting from this solicitation. Such bond must be of a type and amount suitable for the nature of the commodity or services purchased and the dollar amount of the contract as indicated in this solicitation. The performance bond shall be for the duration of the contract, guaranteeing the faithful performance of the contract, and otherwise conditioned as required by law. Performance bond shall be accompanied by a power of attorney showing the authority of the person executing the bond on behalf of the surety company. Bond forms

**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

must be executed with a surety company licensed to do business in the State of Kansas. The cost of the bond shall be included in the bidder's offer.

33. **MODIFICATIONS FOR CHANGES:** No agreement or understanding to modify this solicitation and resultant purchase orders or contract shall be binding upon the City unless made in writing by the Procurement Manager of the City of Olathe.
34. **ORDER OF PRECEDENCE:** In the event of an inconsistency between provisions of the solicitation, the inconsistency will be resolved in the following order: (a) the schedule; (b) Instructions to Bidders and General Conditions; (c) special provisions; (d) other provisions of the contract, whether incorporated by reference or otherwise; and (e) the specifications.
35. **WARRANTY:** Supplies or services furnished because of this solicitation shall be covered by the most favorable commercial warranties, expressed or implied, that the bidder and/or manufacturer gives to any customer. The rights and remedies provided herein are in addition to and do not limit any rights afforded to the City by any other clause of this bid. The City reserves the right to request from bidders a separate manufacturer certification of all statements made in the bid.
36. **PURCHASING CARDS:** The City of Olathe has implemented a procurement card program to streamline its purchasing process and to expedite payments to its suppliers. We encourage your acceptance of the City's VISA P-card. Payments made to the successful bidder of this solicitation process will, if at all possible, be by use of a VISA Purchasing Card.
37. **PAYMENT:** Payment for materials or services received under this contract will be made upon completion of delivery for each purchase order and submission of invoice to the Accounts Payable Division, [apolathe@olatheks.org](mailto:apolathe@olatheks.org) or mail to PO Box 768, Olathe KS 66051-0768. Normal pay periods for the City are every other Friday.
38. **GOVERNING LAW:** Any agreement resulting from this solicitation shall be interpreted under and governed by the laws of the state of Kansas.
39. **ESCALATION/DE-ESCALATION CLAUSE:** In the event prevailing market conditions warrant an adjustment in contract pricing, the following escalation/de-escalation clause shall be the only clause acceptable to the City:
  1. Contractor shall give written notice to the Procurement Manager of any proposed changes from contract prices not less than fifteen (15) calendar days prior to the effective date of price changes.
  2. Such notice must be accompanied by a copy of the supplier's notification to the contractor of a justifiable price change.
  3. No price escalation will be authorized in excess of the amount of the increase indicated on the supplier's notice.
  4. The approved price change shall be honored for all orders received by the contractor after the effective date of such price change.
  5. Approved price changes are not applicable to orders already issued and in process at time of price change.
  6. The City reserves the right to audit and/or examine any pertinent books, documents, papers, records, or invoice relating directly to the price increase after reasonable notice and during normal business hours.
  7. The Procurement Manager retains the right to determine whether or not such proposed price changes are in the best interests of the City.
  8. If in the opinion of the Procurement Manager any proposed increase is found unacceptable, the Procurement Manager reserves the right to cancel the contract upon fifteen (15) calendar days' written notice.
  9. Contractors must tie any price change clause to an industry-wide or otherwise nationally recognized index or some other form of verifiable document. Contractor will put the Procurement Manager on the mailing lists for such publications so the Procurement Manager can monitor said changes. Such membership will be at no cost to the City.
  10. If parties to the contract cannot agree on renewal terms, it is understood that the contract will be cancelled, and a new contract will be solicited.
40. **CERTIFICATE OF GOOD STANDING:** All contractors awarded a contract in the amount of \$25,000 or higher are required to submit a current Kansas Certificate of Good Standing to the City with a valid verification code, upon award of contract. The Certificate is issued by the Kansas Secretary of State's Office and affirms that a business has complied with the applicable provisions of the laws of the state of Kansas, is in good standing, and authorized to transact business or to conduct affairs within this state. Access the Kansas Secretary of State website at [http://www.sos.ks.gov/other/articles\\_of\\_formation.html](http://www.sos.ks.gov/other/articles_of_formation.html) for information. Kansas companies can file online. Foreign companies cannot yet file online. Foreign companies would need to complete and submit the

**CITY OF OLATHE, KS**  
**IFB-25-0020**  
**WATER & WASTEWATER TREATMENT CHEMICALS**

FA, FL, FLLP, or LPF forms to receive the information needed to register with the Secretary of State then get a Certificate of Good Standing thereafter. You may call the Kansas Secretary of State office at 785-296-4564 if you have questions.

41. **ADDITIONAL INFORMATION:** Additional information may be obtained from the Procurement Division Office at (913) 971-9005 or [www.olatheks.org](http://www.olatheks.org).

**CITY OF OLATHE, KS  
IFB-25-0020  
WATER & WASTEWATER TREATMENT CHEMICALS**

**CITY OF OLATHE, KANSAS  
AFFIDAVIT**

STATE OF MICHIGAN)

) SS.

COUNTY OF WAYNE)

Tanya Lipanovich of the City of Detroit ,  
(Name of Individual)

County of Wayne , State of Michigan ,  
being duly sworn on her or his oath, states;

1. That I am the Director of Sales (Title) of PVS Technologies, Inc. (Firm Name),  
and have been authorized by said firm to make this affidavit on its behalf;
2. **(Check the box the applies)**  
☒ No officer, agent or employee of the City of Olathe, Kansas is financially interested, directly or indirectly, in what firm  
is offering to sell to the City pursuant to any solicitation issued by the City of Olathe;  
**OR**  
☐ The following officer(s), agent(s), or employee(s) of the City of Olathe would be financially interested in or receive a  
benefit from the profit or payments of any contract, job work, or service provided to the City of Olathe: (list all such  
officers, agents, or City employees on a separate sheet);
3. **(Check the box that applies)**  
☒ If firm were awarded any contract, job work, or service for the City of Olathe, Kansas, no officer, agent or employee  
of the City would be financially interested in or receive any benefit from the profit or payments of such;  
**OR**  
☐ The following officer(s), agent(s), or employee(s) of the City of Olathe would be financially interested in or receive a  
benefit from the profit or payments of any contract, job work, or service provided to the City of Olathe: (list all such  
officers, agents, or City employees on a separate sheet);
4. Firm has not participated in collusion or committed any act in restraint of trade, directly or indirectly, which bears upon  
anyone's response or lack of response any solicitation issued by the City of Olathe.

<u>PVS Technologies, Inc.</u>	(Firm Name)	<u>Federal Tax ID # 38-1949201</u>
By: <u>Tanya Lipanovich</u>	(Signature)	Subscribed and sworn before me this <u>11th</u> day of
<u>Tanya Lipanovich</u>	(Printed Name)	<u>March</u> <u>2025</u>
<u>Director of Sales</u>	(Title)	<u>Daesha Foster</u> Daesha Foster
<u>Mailing Address 10900 Harper Avenue</u>		<u>NOTARY PUBLIC in and for the County of Wayne</u>
<u>City, State, Zip Code Detroit, Michigan 48213</u>		<u>State of Michigan</u>
<u>Phone (313) 319-7868</u>	<u>Fax (313) 571-6765</u>	<u>My commission expires: December 20, 2030</u>
<u>Email bids@pvschemicals.com</u>		SEAL

**Daesha L. Foster  
Notary Public, Wayne County, MI  
Acting in Wayne County  
Commission Expires December 20, 2030**





March 12, 2025

PVS Technologies, Inc.  
10900 Harper Avenue  
Detroit, MI 48213

**RE: IFB-25-0020 / WATER & WASTEWATER TREATMENT CHEMICALS**

**Material Certification**

Submitted MSDS is current and all information about PVS Technologies, Inc. Ferric and Ferrous Chloride is reflected accurately.

A handwritten signature in black ink, reading "Tatyana Lipanovich". The signature is written in a cursive style with a large, stylized "T" and "L".

Tatyana Lipanovich  
Director of Sales  
PVS Technologies, Inc.





The Public Health and Safety Organization

## NSF Product and Service Listings

These NSF Official Listings are current as of **Tuesday, March 11, 2025** at 12:15 a.m. Eastern Time. Please [contact NSF](#) to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:

<http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=3U690&Standard=060&>

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

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#### PVS Technologies

10900 Harper Avenue

Detroit, MI 48213

United States

313-571-1100

[Visit this company's website](#)

(<http://www.pvschemicals.com>)

**Facility :** Decatur, AL

#### Ferrous Chloride[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferrous Chloride, Solution	Other	250mg/L
Liquid Ferrous Chloride	Other	250mg/L
Liquid Ferrous Chloride- DWG	Other	250mg/L

[1] This product may be used for chlorite removal.

NOTE: Only products bearing the NSF Mark on the product, product packaging, and/or documentation shipped with the product are Certified.

**Facility :** Trinity, AL**Ferrous Chloride[1]**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ferrous Chloride, Solution	Coagulation & Flocculation	250mg/L
Liquid Ferrous Chloride	Coagulation & Flocculation	250mg/L
Liquid Ferrous Chloride- DWG	Coagulation & Flocculation	250mg/L

[1] This product may be used for chlorite removal.

NOTE: Only products bearing the NSF Mark on the product, product packaging, and/or documentation shipped with the product are Certified.

**Facility :** Distribution Center - Henderson, CO**Ferric Chloride**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ferric Chloride Solution	Coagulation & Flocculation	795mg/L
LFC	Coagulation & Flocculation	795mg/L
LFC DWG	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride Drinking Water Grade	Coagulation & Flocculation	795mg/L

**Polymer Blends[PY]**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ferri+Plus 1005	Coagulation & Flocculation	798mg/L
Ferri+Plus 1010	Coagulation & Flocculation	803mg/L
Ferri+Plus 1020	Coagulation & Flocculation	500mg/L
Ferri+Plus 1050	Coagulation & Flocculation	200mg/L
Ferri+Plus 1075	Coagulation & Flocculation	133mg/L
Ferri+Plus 1100	Coagulation & Flocculation	100mg/L
Ferri+Plus 1125	Coagulation & Flocculation	80mg/L
Ferri+Plus 1150	Coagulation & Flocculation	66mg/L
Ferri+Plus 1200	Coagulation & Flocculation	50mg/L
Ferri+Plus 1300	Coagulation & Flocculation	33mg/L
Ferri+Plus 1400	Coagulation & Flocculation	25mg/L

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

## Facility : Augusta, GA

### Ferric Chloride

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
LFC	Coagulation & Flocculation	795mg/L
LFC-DWG	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride Drinking Water Grade (DWG)	Coagulation & Flocculation	795mg/L

### Ferrous Chloride

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferrous Chloride, Solution	Coagulation & Flocculation	250mg/L
Liquid Ferrous Chloride	Coagulation & Flocculation	250mg/L
Liquid Ferrous Chloride - DWG	Coagulation & Flocculation	250mg/L

## Facility : Distribution Center - East St. Louis, IL

### Ferric Chloride

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride - DWG	Coagulation & Flocculation	795mg/L

### Ferrous Chloride

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferrous Chloride	Coagulation & Flocculation	250mg/L
Ferrous Chloride, Solution	Coagulation & Flocculation	250mg/L
Liquid Ferrous Chloride	Coagulation & Flocculation	250mg/L

NOTE: Only products bearing the NSF Mark are NSF Certified.

## Facility : Burns Harbor, IN

**Ferric Chloride**

<b><i>Trade Designation</i></b>	<b><i>Product Function</i></b>	<b><i>Max Use</i></b>
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Ferric Chloride Solution	Coagulation & Flocculation	795mg/L
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride Drinking Water Grade (DWG)	Coagulation & Flocculation	795mg/L
LFC	Coagulation & Flocculation	795mg/L
LFC-DWG	Coagulation & Flocculation	795mg/L

**Facility :** Distribution Center - Kansas City, KS**Ferric Chloride**

<b><i>Trade Designation</i></b>	<b><i>Product Function</i></b>	<b><i>Max Use</i></b>
Ferric Chloride	Coagulation & Flocculation	795mg/L

**Ferrous Chloride**

<b><i>Trade Designation</i></b>	<b><i>Product Function</i></b>	<b><i>Max Use</i></b>
Ferrous Chloride	Coagulation & Flocculation	250mg/L
Ferrous Chloride, Solution	Coagulation & Flocculation	250mg/L
Liquid Ferrous Chloride	Coagulation & Flocculation	250mg/L

**Facility :** Distribution Center - Louisville, KY**Ferric Chloride**

<b><i>Trade Designation</i></b>	<b><i>Product Function</i></b>	<b><i>Max Use</i></b>
Ferric Chloride DWG	Coagulation & Flocculation	795mg/L
Ferric Chloride Drinking Water Grade	Coagulation & Flocculation	795mg/L
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L

**Facility :** Distribution Center - Baltimore, MD**Ferric Chloride**

<b><i>Trade Designation</i></b>	<b><i>Product Function</i></b>	<b><i>Max Use</i></b>
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L

Liquid Ferric Chloride - DWG

Coagulation &amp; Flocculation

795mg/L

**Facility :** Detroit, MI**Ferric Chloride**

<i><b>Trade Designation</b></i>	<i><b>Product Function</b></i>	<i><b>Max Use</b></i>
Ferric Chloride Solution	Coagulation & Flocculation	795mg/L
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
LFC	Coagulation & Flocculation	795mg/L
LFC-DWG	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride Drinking Water Grade (DWG)	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride LMG	Coagulation & Flocculation	795mg/L

**Polymer Blends[PY]**

<i><b>Trade Designation</b></i>	<i><b>Product Function</b></i>	<i><b>Max Use</b></i>
Ferri+Plus 1005	Coagulation & Flocculation	798mg/L
Ferri+Plus 1010	Coagulation & Flocculation	803mg/L
Ferri+Plus 1020	Coagulation & Flocculation	500mg/L
Ferri+Plus 1025	Coagulation & Flocculation	400mg/L
Ferri+Plus 1050	Coagulation & Flocculation	200mg/L
Ferri+Plus 1075	Coagulation & Flocculation	133mg/L
Ferri+Plus 1100	Coagulation & Flocculation	100mg/L
Ferri+Plus 1125	Coagulation & Flocculation	80mg/L
Ferri+Plus 1150	Coagulation & Flocculation	66mg/L
Ferri+Plus 1200	Coagulation & Flocculation	50mg/L
Ferri+Plus 1300	Coagulation & Flocculation	33mg/L
Ferri+Plus 1400	Coagulation & Flocculation	25mg/L
Ferri+Plus 3005	Coagulation & Flocculation	798mg/L
Ferri+Plus 3010	Coagulation & Flocculation	803mg/L
Ferri+Plus 3020	Coagulation & Flocculation	500mg/L
Ferri+Plus 3025	Coagulation & Flocculation	400mg/L
Ferri+Plus 3050	Coagulation & Flocculation	200mg/L
Ferri+Plus 3075	Coagulation & Flocculation	133mg/L
Ferri+Plus 3100	Coagulation & Flocculation	100mg/L
Ferri+Plus 3125	Coagulation & Flocculation	80mg/L
Ferri+Plus 3150	Coagulation & Flocculation	66mg/L
Ferri+Plus 3200	Coagulation & Flocculation	50mg/L
Ferri+Plus 3300	Coagulation & Flocculation	33mg/L
Ferri+Plus 3400	Coagulation & Flocculation	25mg/L
Ferri+Plus 4005	Coagulation & Flocculation	798mg/L

Ferri+Plus 4010	Coagulation & Flocculation	803mg/L
Ferri+Plus 4020	Coagulation & Flocculation	500mg/L
Ferri+Plus 4050	Coagulation & Flocculation	200mg/L
Ferri+Plus 4075	Coagulation & Flocculation	133mg/L
Ferri+Plus 4100	Coagulation & Flocculation	100mg/L
Ferri+Plus 4125	Coagulation & Flocculation	80mg/L
Ferri+Plus 4150	Coagulation & Flocculation	66mg/L
Ferri+Plus 4200	Coagulation & Flocculation	50mg/L
Ferri+Plus 4300	Coagulation & Flocculation	33mg/L
Ferri+Plus 4400	Coagulation & Flocculation	25mg/L
Ferri+Plus 5005	Coagulation & Flocculation	798mg/L
Ferri+Plus 5010	Coagulation & Flocculation	803mg/L
Ferri+Plus 5020	Coagulation & Flocculation	500mg/L
Ferri+Plus 5050	Coagulation & Flocculation	200mg/L
Ferri+Plus 5075	Coagulation & Flocculation	133mg/L
Ferri+Plus 5100	Coagulation & Flocculation	100mg/L
Ferri+Plus 5125	Coagulation & Flocculation	80mg/L
Ferri+Plus 5150	Coagulation & Flocculation	66mg/L
Ferri+Plus 5200	Coagulation & Flocculation	50mg/L
Ferri+Plus 5300	Coagulation & Flocculation	33mg/L
Ferri+Plus 5400	Coagulation & Flocculation	25mg/L

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

## **Facility :** Cannon Falls, MN

### **Ferric Chloride**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride- DWG	Coagulation & Flocculation	795mg/L

## **Facility :** Distribution Center - Pottstown, PA

### **Ferric Chloride**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L

Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride- DWG	Coagulation & Flocculation	795mg/L

**Facility :** Houston, TX**Ferric Chloride**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ferric Chloride LMG	Coagulation & Flocculation	795mg/L
Ferric Chloride Solution DWG (LFCD)	Coagulation & Flocculation	795mg/L
Ferric Chloride Solution EMD	Coagulation & Flocculation	795mg/L
Ferric Chloride Solution LMG	Coagulation & Flocculation	795mg/L
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
LFC	Coagulation & Flocculation	795mg/L
LFC-DWG	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride Drinking Water Grade (DWG)	Coagulation & Flocculation	795mg/L

**Facility :** Distribution Center - Petersburg, VA**Ferric Chloride**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride - DWG	Coagulation & Flocculation	795mg/L

**Facility :** New Martinsville, WV**Ferric Chloride**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ferric Chloride Solution DWG Grade	Coagulation & Flocculation	795mg/L
Ferric Chloride, Solution	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride Drinking Water Grade (DWG)	Coagulation & Flocculation	795mg/L
Liquid Ferric Chloride LMG	Coagulation & Flocculation	795mg/L

**Polymer Blends[PY]**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ferri+Plus 1005	Coagulation & Flocculation	798mg/L
Ferri+Plus 1010	Coagulation & Flocculation	803mg/L
Ferri+Plus 1020	Coagulation & Flocculation	500mg/L
Ferri+Plus 1025	Coagulation & Flocculation	400mg/L
Ferri+Plus 1050	Coagulation & Flocculation	200mg/L
Ferri+Plus 1075	Coagulation & Flocculation	133mg/L
Ferri+Plus 1100	Coagulation & Flocculation	100mg/L
Ferri+Plus 1125	Coagulation & Flocculation	80mg/L
Ferri+Plus 1150	Coagulation & Flocculation	66mg/L
Ferri+Plus 1200	Coagulation & Flocculation	50mg/L
Ferri+Plus 1300	Coagulation & Flocculation	33mg/L
Ferri+Plus 1400	Coagulation & Flocculation	25mg/L
Ferri+Plus 3005	Coagulation & Flocculation	1005mg/L
Ferri+Plus 3010	Coagulation & Flocculation	1000mg/L
Ferri+Plus 3020	Coagulation & Flocculation	500mg/L
Ferri+Plus 3025	Coagulation & Flocculation	400mg/L
Ferri+Plus 3050	Coagulation & Flocculation	200mg/L
Ferri+Plus 3075	Coagulation & Flocculation	133mg/L
Ferri+Plus 3100	Corrosion & Scale Control	100mg/L
Ferri+Plus 3150	Coagulation & Flocculation	66mg/L

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

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Number of matching Manufacturers is 1

Number of matching Products is 149

Processing time was 0 seconds



## Liquid Ferrous Chloride

PVS Technologies Liquid Ferrous Chloride is a concentrated solution of Iron II Chloride ( $\text{FeCl}_2$ ) in water. Produced from high purity raw materials, it is the result of the dissolution of Iron Oxide and Iron in Hydrochloric Acid.

### ***Principal Uses in Wastewater Treatment***

- Phosphate Precipitation and Removal
- Elimination of Sulfide Based Odors
- Reduction of Arsenic and Mercury
- Hexavalent Chrome Reduction
- Struvite Control
- Chlorite Reduction (NSF 60)

<b><i>Specifications</i></b>	
<b>Appearance:</b>	A clear green to hazel colored solution
<b>Concentrations:</b>	
$\text{FeCl}_2$	16% to 30%, as required
Free Acid as HCl	4.0% maximum
Insolubles	0.5% maximum
<b>Specific gravity:</b>	1.14 to 1.33
<b>CAS No.:</b>	7758-94-3
<b>UN Classification:</b>	Corrosive; NA1760; Ferrous Chloride Solution
	SQC data available on request

### ***Delivery***

Available for shipping via the following options:

55 gallon drums  
300 gallon totes  
4,000 & 8,000 gallon tank trucks  
17,000 gallon railcars

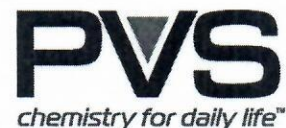
### ***Product Availability***

Throughout North America – 8,000 gallon tankers only available in Michigan.

### ***Handling & Safety***

Ferrous Chloride is considered to be hazardous by definition of the Hazard Communication Standard (29 CFR 1910.1200) and should be handled in a manner that is consistent with acceptable practices. Please obtain the Ferrous Chloride Material Safety Data Sheet for complete up-to-date information.

Document Number: TAFU007	Page 1 of 2	Revision No.: 4	Revision Date: 11/15/2019
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Under normal situations the only protective equipment required in the use and handling of Liquid Ferrous Chloride are splash proof chemical goggles and rubber gloves. Liquid Ferrous Chloride will stain both clothing and skin and it is recommended that, to protect against this occurrence, other protect clothing be worn as is appropriate.

Ferrous Chloride reacts with many metals. However, most handling situations are reliably addressed through the use of common plastic materials such as FRP, PVC, Polyethylene, Polypropylene and Teflon. For additional information, please consult your equipment supplier.

***For additional information call: 313 571-1100***  
***To place an order call: 800 337-7428***

***PVS Technologies - Serving Water and Wastewater Plants throughout the World***

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Document Number: TAFU007	Page 2 of 2	Revision No.: 4	Revision Date: 11/15/2019
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# Safety Data Sheet

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Ferrous Chloride Solution  
**Synonyms** Iron (II) Chloride  
**UN/ID No.** UN1760  
**Item #** 10248  
**Revision Date** Sep-13-2022  
**Safety Data Sheet** 3743  
**Recommended Use** Water treatment chemical, Industrial wastewater treatment, Municipal wastewater treatment, Chrome reduction  
**Uses advised against** Consumer uses: Private households (= general public = consumers).

### Company Name

PVS Technologies, Inc.  
 10900 Harper Ave.  
 Detroit, MI 48213  
 (313) 571-1100

**24 Hour Emergency Phone Number** CHEMTREC 1-800-424-9300

## 2. HAZARDS IDENTIFICATION




### Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
May be corrosive to metals	Category 1
Carcinogenicity	Category 1A

### Emergency Overview

**DANGER**

**Hazard statements** Causes severe skin burns and eye damage  
May cause cancer

### Precautionary statements

#### Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area
- Do not breathe dust/fume/gas/mist/vapors/spray

#### Response

- Immediately call a POISON CENTER or doctor/physician
- Specific treatment (see section 4 on this Safety Data Sheet)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or

## Ferrous Chloride Solution

doctor/physician

**Skin** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse

**Inhalation** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell Immediately call a POISON CENTER or doctor/physician

**Ingestion** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth Do NOT induce vomiting

### Storage

- Store locked up

### Disposal

- Dispose of contents/container to an approved waste disposal plant

### Other Information

#### **Other hazards**

- Harmful to aquatic life with long lasting effects
- Harmful to aquatic life

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	Weight-% *
Water	7732-18-5	231-791-2	70-84
Ferrous chloride	7758-94-3	231-843-4	16-30
Hydrogen chloride	7647-01-0	231-595-7	0-6

## 4. FIRST AID MEASURES

### **General advice**

- Call 911 or emergency medical service
- Remove and isolate contaminated clothing and shoes

### **Eye contact**

- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes

### **Skin contact**

- For minor skin contact, avoid spreading material on unaffected skin
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

### **Inhalation**

- Move victim to fresh air
- If breathing is irregular or stopped, administer artificial respiration
- Administer oxygen if breathing is difficult

### **Ingestion**

- Immediate medical attention is required
- Do NOT induce vomiting
- Never give anything by mouth to an unconscious person
- Drink plenty of water
- Remove from exposure, lie down
- Clean mouth with water and drink afterwards plenty of water
- Call a physician or poison control center immediately

### **Note to physician**

- Keep victim warm and quiet
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed

### **Self-protection for first aid personnel**

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves
- Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other

## Ferrous Chloride Solution

proper respiratory medical device

### 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	<ul style="list-style-type: none"><li>• Dry chemical, CO2, alcohol-resistant foam or water spray</li><li>• Dry chemical, CO2 or water spray</li><li>• Move containers from fire area if you can do it without risk</li><li>• Dike fire control water for later disposal; do not scatter the material</li></ul>
<b>Unsuitable extinguishing media</b>	<ul style="list-style-type: none"><li>• No information available</li></ul>
<b>Specific hazards arising from the chemical</b>	<ul style="list-style-type: none"><li>• Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.)</li></ul>
<b>Protective equipment and precautions for firefighters</b>	<ul style="list-style-type: none"><li>• Wear a self-contained breathing apparatus and chemical protective clothing</li></ul>
<b>Flammable properties</b>	<ul style="list-style-type: none"><li>• Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes</li><li>• Contact with metals may evolve flammable hydrogen gas</li><li>• Containers may explode when heated</li></ul>
<b>Explosive properties</b>	<ul style="list-style-type: none"><li>• No information available</li></ul>

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	<ul style="list-style-type: none"><li>• ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area)</li><li>• Do not touch damaged containers or spilled material unless wearing appropriate protective clothing</li><li>• Stop leak if you can do it without risk</li></ul>
<b>Environmental precautions</b>	<ul style="list-style-type: none"><li>• For small spills absorb material on dry rags, cat litter or similar absorbent material and dispose of in the trash</li><li>• For large spills, contain the material using barriers of absorbent pigs, clay absorbent or earth dams.</li><li>• US regulations require reporting spills of this material that could reach any surface waters. The toll-free phone number for the US Coast Guard National Response Center is 1-800-424-8802</li></ul>
<b>Methods for cleaning up</b>	<ul style="list-style-type: none"><li>• Dike far ahead of liquid spill for later disposal</li><li>• Soak up with inert absorbent material</li><li>• Take up mechanically, placing in appropriate containers for disposal</li><li>• Clean contaminated surface thoroughly</li><li>• Prevent product from entering drains</li><li>• Dam up</li><li>• After cleaning, flush away traces with water</li></ul>
<b>Other Information</b>	<ul style="list-style-type: none"><li>• Clean contaminated objects and areas thoroughly observing environmental regulations</li><li>• Following product recovery, flush area with water</li></ul>

### 7. HANDLING AND STORAGE

<b>Advice on safe handling</b>	<ul style="list-style-type: none"><li>• Use personal protective equipment as required</li><li>• Avoid contact with skin, eyes or clothing</li><li>• Ensure adequate ventilation, especially in confined areas</li><li>• In case of insufficient ventilation, wear suitable respiratory equipment</li><li>• Use only with adequate ventilation and in closed systems</li></ul>
<b>Storage Conditions</b>	<ul style="list-style-type: none"><li>• Keep container tightly closed in a dry and well-ventilated place</li><li>• Keep out of the reach of children</li><li>• Keep containers tightly closed in a dry, cool and well-ventilated place</li><li>• Keep in properly labeled containers</li></ul>
<b>Incompatible materials</b>	Contact with metals may evolve flammable hydrogen gas, Oxidizers, Strong bases,



## Ferrous Chloride Solution

Reducing agents, Alcohols, Sulfides, Styrene, Incompatible with strong acids and bases,  
Incompatible with oxidizing agents

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ferrous chloride 7758-94-3	TWA: 1 mg/m <sup>3</sup> Fe		TWA: 1 mg/m <sup>3</sup> Fe
Hydrogen chloride 7647-01-0	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm

#### Exposure Guidelines

#### Engineering Controls

Ensure adequate ventilation, especially in confined areas.

#### Individual protection measures, such as personal protective equipment

##### Respiratory protection

• A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator.

##### Eye/Face protection

- Tight sealing safety goggles
- Face protection shield

##### Skin and body protection

- Wear suitable protective clothing
- Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact

##### General Hygiene Considerations

- When using do not eat, drink or smoke
- Wash contaminated clothing before reuse
- Keep away from food, drink and animal feeding stuffs
- Contaminated work clothing should not be allowed out of the workplace
- Regular cleaning of equipment, work area and clothing is recommended
- Avoid contact with skin, eyes or clothing
- Take off all contaminated clothing and wash it before reuse
- Wear suitable gloves and eye/face protection

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

Physical state	Liquid
Appearance	aqueous solution
Color	green to yellow
Odor	Iron Slight acidic
Odor threshold	No information available

Property	Values	Remarks • Method
pH	<2.0	
Melting point/Freezing Point	-50 °C / -58 °F	solution (20 %)
Boiling point / boiling range	> 100 °C / 212 °F	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit (%)	No information available	
Lower flammability limit (%):	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.20	20% Solution @17.5°C
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	

## Ferrous Chloride Solution

Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

### Other Information

Softening point °C	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	10.00 Pounds per gallon (lb/gal)

## 10. STABILITY AND REACTIVITY

Stability	• Stable under recommended storage conditions
Conditions to avoid	• Elevated temperature • Exposure to air or moisture over prolonged periods
Incompatible materials	Contact with metals may evolve flammable hydrogen gas, Oxidizers, Strong bases, Reducing agents, Alcohols, Sulfides, Styrene, Incompatible with strong acids and bases, Incompatible with oxidizing agents
Hazardous Decomposition Products	• Thermal decomposition can lead to release of irritating and toxic gases and vapors
Possibility of Hazardous Reactions	• None under normal processing and storage

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

Principle Routes of Exposure	Inhalation, Skin contact, Eye contact
Inhalation	May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Ingestion	May be harmful if swallowed.
Skin contact	May cause skin irritation and/or dermatitis.
Eye contact	Contact with eyes may cause irritation.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg ( Rat )		
Ferrous chloride 7758-94-3	450 mg/kg (Rat)		
Hydrogen chloride 7647-01-0	238 - 277 mg/kg ( Rat )	> 5010 mg/kg ( Rabbit )	= 1.68 mg/L ( Rat ) 1 h

### Information on toxicological effects

Symptoms	No information available
----------	--------------------------

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrogen chloride 7647-01-0		Group 3		X

IARC (International Agency for Research on Cancer)

*Not classifiable as a human carcinogen*

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity	No information available.
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## Ferrous Chloride Solution

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Chronic toxicity

Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects. May cause adverse liver effects.

Target Organ Effects

Eyes, Gastrointestinal tract (GI), Liver, Respiratory system, Skin.

Aspiration hazard

No information available.

### Numerical measures of toxicity - Product Information

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

Oral LD50

1569 mg/kg

LC50 (Gas)

18776.74 mg/l

LC50 (Dust/Mist)

16.7 mg/l

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Ecotoxicity

Harmful to aquatic life with long lasting effects

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available

Bioaccumulation

No information available

Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

Disposal of wastes

- Dispose of in accordance with federal, state and local regulations
- Dispose of hazardous waste in a RCRA licensed facility

Contaminated packaging

- Do not reuse container

US EPA Waste Number

- D002

## 14. TRANSPORT INFORMATION

### DOT

Proper shipping name

CORROSIVE LIQUID, N.O.S.

Hazard Class

8

UN/ID No.

UN1760

Packing Group

II

RQ (lbs)(dry)

Ferrous chloride: RQ kg= 45.40

DOT Technical Name

Hydrogen chloride

Description

UN1760, Corrosive liquid, n.o.s. (Hydrogen chloride), 8, II, RQ

Special Provisions

B2, IB2, TII, TP2, TP27

Emergency Response Guide  
Number

154

### Transport Canada

UN/ID No.

UN1760

Proper shipping name

CORROSIVE LIQUID, N.O.S.

Hazard Class

8

Packing Group

II

Description

UN1760, Corrosive liquid, n.o.s. (Hydrogen chloride), 8, II

### IATA

UN/ID No.

UN1760

Proper shipping name

CORROSIVE LIQUID, N.O.S.

Hazard Class

8



**Ferrous Chloride Solution**

Packing Group II  
ERG Code 8L  
Special Provisions A3, A803  
DOT Technical Name Hydrogen chloride

**IMDG**

UN/ID No. UN1760  
Proper shipping name CORROSIVE LIQUID, N.O.S.  
Hazard Class 8  
Packing Group II  
EmS-No. F-A, S-B  
Special Provisions 274  
DOT Technical Name Hydrogen chloride

**15. REGULATORY INFORMATION****US Federal Regulations****SARA 311/312 Hazard Categories**

Acute health hazard Yes  
Chronic Health Hazard Yes  
Fire hazard No  
Sudden release of pressure hazard No  
Reactive Hazard No

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Hydrogen chloride - 7647-01-0	1.0

**U.S. - TSCA (Toxic Substances Control Act) - Section 5(a)(2) - Chemicals with Significant New Use Rules (SNURs)****CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ferrous chloride 7758-94-3	100 lb			X
Hydrogen chloride 7647-01-0	5000 lb			X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ (lbs)(dry)
Ferrous chloride 7758-94-3	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Hydrogen chloride 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

**Canada****WHMIS Classification**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR  
Non-controlled

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know**

## Ferrous Chloride Solution

### Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5			X
Ferrous chloride 7758-94-3	X	X	X
Hydrogen chloride 7647-01-0	X	X	X

### DEA List I, List II

Chemical Name	U.S. - DEA - List I or Precursor Chemicals	U.S.- DEA - List II or Essential Chemicals
Hydrogen chloride 7647-01-0	-	0.0 kg, Domestic Sales Weight 50 gallon, Export Volume 27 kg, Export Weight

### International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

## 16. OTHER INFORMATION

<b>NFPA</b>	Health hazards 3	Flammability 0	Instability 0	Physical and Chemical Properties
<b>HMIS</b>	Health hazards 3	Flammability 0	Physical hazards 0	Personal protection D

Item # 10248  
 Safety Data Sheet 3743  
 Revision Date Sep-13-2022  
 Issue Date Sep-13-2022  
 Version 5.01  
 Revision Note \*\*\* Updated value on SDS.

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End of Safety Data Sheet

## Liquid Ferric Chloride LMG

PVS Technologies Liquid Ferric Chloride LMG is a concentrated solution of Iron III Chloride ( $\text{FeCl}_3$ ) in water. It is manufactured from 100% high purity raw materials and is designed for premembrane water conditioning as well as other traditional inorganic coagulant uses.

### ***Principal Uses in Potable Water Treatment***

- Pre-Membrane water conditioning
- Turbidity reduction
- Color elimination
- Softening solids sedimentation
- Enhanced coagulation, NOM and DBP precursor removal
- Sludge reduction
- Filter conditioning
- Arsenic Removal

<b><i>Specifications</i></b>	
<b>Appearance:</b>	A dark red/brown liquid
<b>Concentrations:</b>	
$\text{FeCl}_3$	37% - 42%
$\text{FeCl}_2$	0.75% maximum
Free Acid as HCl	1.0% maximum Drinking Water Grade
Insolubles	0.008% (80 ppm) maximum
Radionuclides	None
<b>Specific gravity:</b>	1.38 – 1.49
<b>Viscosity:</b>	12.1 centipoises for a 40% solution
<b>Crystallization:</b>	37% $\text{FeCl}_3$ (- 15°F); 40% $\text{FeCl}_3$ (10°F)
<b>AWWA Certified:</b>	Meets AWWA Standard B407-12
<b>NSF/ANSI Standard 60 Certification:</b>	Maximum use level – 250 ppm as solution
<b>CAS No.:</b>	7705-08-0
<b>UN Classification:</b>	UN2582, Ferric Chloride Solution
	SQC data available on request

### ***Delivery***

Available for shipping via the following options:

55 gallon drums

300 gallon totes

4,000 & 8,000 gallon tank trucks

17,000 gallon railcars

### ***Product Availability***

Throughout North America – 8,000 gallon tankers only available in Michigan.

Document Number: TAFU057	Page 1 of 2	Revision No.: 3	Revision Date: 11/15/2019
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## ***Handling & Safety***

Ferric Chloride is considered to be hazardous by definition of the Hazard Communication Standard (29 CFR 1910.1200) and should be handled in a manner that is consistent with acceptable practices. Please obtain the Safety Data Sheet for complete up-to-date information.

Under normal situations the only protective equipment required in the use and handling of Ferric Chloride is splash proof chemical goggles and chemical resistant gloves. Ferric Chloride will stain both clothing and skin and it is recommended that, to protect against this occurrence, other protect clothing be worn as is appropriate.

Ferric Chloride reacts with many metals. However, most handling situations are reliably addressed through the use of common plastic materials such as FRP, PVC, Polyethylene, Polypropylene and Teflon. For additional information, please consult your equipment supplier.

***For additional information call: 313 571-1100  
To place an order call: 800 337-7428***

## ***PVS Technologies - Serving Water and Wastewater Plants throughout the World***

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Document Number: TAFU057	Page 2 of 2	Revision No.: 3	Revision Date: 11/15/2019
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# Safety Data Sheet

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	<b>Ferric Chloride Solution DWG Grade</b>
Synonyms	Iron (III) Chloride, Iron trichloride, FeCl <sub>3</sub>
UN/ID No.	UN2582
Item #	10244
Revision Date	May-20-2020
Safety Data Sheet	5443
Recommended Use	Water treatment chemical
Uses advised against	Consumer uses: Private households (= general public = consumers).

### Company Name

PVS Technologies, Inc.  
10900 Harper Ave.  
Detroit, MI 48213  
(313) 571-1100

**24 Hour Emergency Phone Number** CHEMTREC 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
May be corrosive to metals	Category 1
Carcinogenicity	Category 1A

### Emergency Overview

#### DANGER

#### Hazard statements

Harmful if swallowed  
Causes severe skin burns and eye damage  
May cause cancer



### Precautionary statements

#### Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Do not breathe dust/fume/gas/mist/vapors/spray

#### Response

- Immediately call a POISON CENTER or doctor/physician
- Specific treatment (see section 4 on this Safety Data Sheet)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician

## Ferric Chloride Solution DWG Grade

Skin	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Immediately call a POISON CENTER or doctor/physician
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth Do NOT induce vomiting

### Storage

- Store locked up

### Disposal

- Dispose of contents/container to an approved waste disposal plant

### Other Information

#### Other hazards

- Toxic to aquatic life with long lasting effects
- Toxic to aquatic life

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	Weight-% *
Water	7732-18-5	231-791-2	55-69
Iron trichloride	7705-08-0	231-729-4	31-45
Hydrogen chloride	7647-01-0	231-595-7	0.0-1.0
Ferrous chloride	7758-94-3	231-843-4	0.0-0.7

## 4. FIRST AID MEASURES

#### General advice

- Immediate medical attention is required

#### Eye contact

- Immediate medical attention is required
- Do not rub affected area
- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
- Keep eyes wide open while rinsing

#### Skin contact

- Immediate medical attention is required
- Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes

#### Inhalation

- Call a physician or poison control center immediately
- Remove to fresh air
- If not breathing, give artificial respiration
- If breathing is labored, administer oxygen

#### Ingestion

- Do NOT induce vomiting
- Never give anything by mouth to an unconscious person
- Immediate medical attention is required
- Drink plenty of water
- Remove from exposure, lie down
- Clean mouth with water and drink afterwards plenty of water
- Call a physician or poison control center immediately

#### Note to physician

- Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure
- Treat symptomatically

#### Self-protection for first aid

- Use personal protective equipment as required

## Ferric Chloride Solution DWG Grade

### personnel

- Avoid contact with skin, eyes or clothing

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

- Dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

### Unsuitable extinguishing media

- No information available

### Specific hazards arising from the chemical

- The product causes burns of eyes, skin and mucous membranes
- Thermal decomposition can lead to release of irritating and toxic gases and vapors
- In the event of fire and/or explosion, do not breathe fumes

### Protective equipment and precautions for firefighters

- Wear a self-contained breathing apparatus and chemical protective clothing

### Flammable properties

- No information available

### Explosive properties

- No information available

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

- Evacuate personnel to safe areas
- Use personal protective equipment as required
- Avoid contact with skin, eyes or clothing
- Keep people away from and upwind of spill/leak

### Environmental precautions

- For small spills, absorb material with clay absorbent or other compatible material. Dispose of the waste material according to local, state and governmental requirements.
- For large spills, contain the material using barriers of absorbent pigs, clay absorbent or earth dams.
- US regulations require reporting spills of this material that could reach any surface waters. The toll-free phone number for the US Coast Guard National Response Center is 1-800-424-8802

### Methods for cleaning up

- Take up mechanically, placing in appropriate containers for disposal
- Clean contaminated surface thoroughly
- Soak up with inert absorbent material
- Dike far ahead of liquid spill for later disposal
- Prevent product from entering drains
- Dam up
- After cleaning, flush away traces with water

### Other Information

- Spills exceeding the Reportable Quantity (RQ) of 1000 pounds or more must be reported to the National Response Center, (800) 424-8802.

## 7. HANDLING AND STORAGE

### Advice on safe handling

- Use personal protective equipment as required
- Avoid contact with skin, eyes or clothing
- Ensure adequate ventilation, especially in confined areas
- In case of insufficient ventilation, wear suitable respiratory equipment
- Use only with adequate ventilation and in closed systems

### Storage Conditions

- Keep container tightly closed in a dry and well-ventilated place
- Keep out of the reach of children
- Keep containers tightly closed in a dry, cool and well-ventilated place
- Keep in properly labeled containers

### Incompatible materials

Incompatible with strong acids and bases, oxidizers, steel, and most metals, Incompatible with strong acids and bases, Incompatible with oxidizing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Iron trichloride 7705-08-0	TWA: 1 mg/m <sup>3</sup> Fe		TWA: 1 mg/m <sup>3</sup> Fe
Hydrogen chloride 7647-01-0	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm
Ferrous chloride 7758-94-3	TWA: 1 mg/m <sup>3</sup> Fe		TWA: 1 mg/m <sup>3</sup> Fe

### Exposure Guidelines

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

### Individual protection measures, such as personal protective equipment

- Respiratory protection** • A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator.
- Eye/Face protection** • Tight sealing safety goggles  
• Face protection shield
- Skin and body protection** • Wear suitable protective clothing  
• Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact
- General Hygiene Considerations** • Wash contaminated clothing before reuse  
• When using do not eat, drink or smoke  
• Keep away from food, drink and animal feeding stuffs  
• Contaminated work clothing should not be allowed out of the workplace  
• Regular cleaning of equipment, work area and clothing is recommended  
• Avoid contact with skin, eyes or clothing  
• Take off all contaminated clothing and wash it before reuse  
• Wear suitable gloves and eye/face protection

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear to slightly hazy
Color	Red brown
Odor	Slight Iron acidic
Odor threshold	No information available

Property	Values	Remarks • Method
pH	<2	
Melting point/Freezing Point	-26 °C / -15 °F	
Boiling point / boiling range	110 °C / 230 °F	
Flash point	No information available	
Evaporation rate	<1	n-Butyl acetate =1
Flammability (solid, gas)	No information available	
Flammability Limit in Air		Not flammable
Upper flammability limit (%)	No information available	
Lower flammability limit (%):	No information available	
Vapor pressure	No information available	negligible
Vapor density	No information available	
Specific Gravity	1.40	
Water solubility	Miscible in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	



## Ferric Chloride Solution DWG Grade

Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

### Other Information

Softening point °C	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	11.7 Pounds per gallon (lb/gal), Typical

## 10. STABILITY AND REACTIVITY

Stability	• Stable under recommended storage conditions
Conditions to avoid	• Exposure to air or moisture over prolonged periods
Incompatible materials	Incompatible with strong acids and bases, oxidizers, steel, and most metals, Incompatible with strong acids and bases, Incompatible with oxidizing agents
Hazardous Decomposition Products	• Thermal decomposition can lead to release of irritating and toxic gases and vapors
Possibility of Hazardous Reactions	• None under normal processing and storage

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

Principle Routes of Exposure	Inhalation, Skin contact, Eye contact
Inhalation	May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Ingestion	May cause adverse kidney effects. May cause adverse liver effects.
Skin contact	Contact causes severe skin irritation and possible burns.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg ( Rat )		
Iron trichloride 7705-08-0	= 316 mg/kg ( Rat ) = 450 mg/kg ( Rat )	>2000 mg/kg (rat)	
Hydrogen chloride 7647-01-0	238 - 277 mg/kg ( Rat )	> 5010 mg/kg ( Rabbit )	= 1.68 mg/L ( Rat ) 1 h
Ferrous chloride 7758-94-3	450 mg/kg (Rat)		

### Information on toxicological effects

Symptoms	Vomiting, Hypoxemia (reduced O2 in the blood), Metabolic Acidosis
----------	---

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrogen chloride 7647-01-0		Group 3		X

IARC (International Agency for Research on Cancer)

Not classifiable as a human carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.

## Ferric Chloride Solution DWG Grade

### Chronic toxicity

Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects. May cause adverse liver effects.

### Target Organ Effects

Eyes, Gastrointestinal tract (GI), Liver, Respiratory system, Skin.

### Aspiration hazard

No information available.

## Numerical measures of toxicity - Product Information

### Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

Oral LD50

832 mg/kg

LC50 (Dust/Mist)

100.2 mg/l

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Ecotoxicity

Toxic to aquatic life with long lasting effects

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Iron trichloride 7705-08-0		20.95 - 22.56: 96 h Pimephales promelas mg/L LC50 semi-static 20.26: 96 h Lepomis macrochirus mg/L LC50 semi-static 75.6: 96 h Gambusia affinis mg/L LC50 static	27.9: 48 h Daphnia magna mg/L EC50 9.6: 48 h Daphnia magna mg/L EC50 Static
Hydrogen chloride 7647-01-0		282: 96 h Gambusia affinis mg/L LC50 static	
Ferrous chloride 7758-94-3		4: 96 h Morone saxatilis mg/L LC50 static	

### Persistence and degradability

No information available

### Bioaccumulation

No information available

Chemical Name	Partition coefficient
Iron trichloride 7705-08-0	-4

### Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Disposal of wastes

• This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261)

### Contaminated packaging

• Do not reuse container

### US EPA Waste Number

• D002

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Iron trichloride 7705-08-0	Toxic Corrosive

## 14. TRANSPORT INFORMATION

### DOT

#### Proper shipping name

Ferric chloride, solution

#### Hazard Class

8

#### UN/ID No.

UN2582

#### Packing Group

III

#### RQ (lbs)(dry)

Ferric chloride: RQ kg= 454.00, Ferrous chloride: RQ kg= 45.40

#### RQ as is (lbs)(wet)

2222 (45% Ferric Chloride)

#### Description

UN2582, Ferric chloride, solution, 8, III, RQ

#### Special Provisions

B15, IB3, T4, TP1

**Ferric Chloride Solution DWG Grade**

Emergency Response Guide Number 154

**Transport Canada**

UN/ID No. UN2582  
Proper shipping name FERRIC CHLORIDE SOLUTION  
Hazard Class 8  
Packing Group III  
Description UN2582, Ferric chloride solution, 8, III

**IATA**

UN/ID No. UN2582  
Proper shipping name FERRIC CHLORIDE SOLUTION  
Hazard Class 8  
Packing Group III  
ERG Code 8L  
Special Provisions A3, A803

**IMDG**

UN/ID No. UN2582  
Proper shipping name FERRIC CHLORIDE SOLUTION  
Hazard Class 8  
Packing Group III  
EmS-No. F-A, S-B  
Special Provisions 223

**15. REGULATORY INFORMATION****US Federal Regulations****SARA 311/312 Hazard Categories**

Acute health hazard Yes  
Chronic Health Hazard Yes  
Fire hazard No  
Sudden release of pressure hazard No  
Reactive Hazard No

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**U.S. - TSCA (Toxic Substances Control Act) - Section 5(a)(2) - Chemicals with Significant New Use Rules (SNURs)****CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Iron trichloride 7705-08-0	1000 lb			X
Hydrogen chloride 7647-01-0	5000 lb			X
Ferrous chloride 7758-94-3	100 lb			X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ (lbs)(dry)
Iron trichloride 7705-08-0	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Hydrogen chloride 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ
Ferrous chloride 7758-94-3	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

## Ferric Chloride Solution DWG Grade

### Canada

#### WHMIS Classification

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR

Non-controlled

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

#### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5			X
Iron trichloride 7705-08-0	X	X	X
Hydrogen chloride 7647-01-0	X	X	X
Ferrous chloride 7758-94-3	X	X	X

#### DEA List I, List II

Chemical Name	U.S. - DEA - List I or Precursor Chemicals	U.S.- DEA - List II or Essential Chemicals
Hydrogen chloride 7647-01-0	-	0.0 kg, Domestic Sales Weight 50 gallon, Export Volume 27 kg, Export Weight

### International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

### Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
ENCS - Japan Existing and New Chemical Substances  
IECSC - China Inventory of Existing Chemical Substances  
KECL - Korean Existing and Evaluated Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
AICS - Australian Inventory of Chemical Substances

## 16. OTHER INFORMATION

<b>NFPA</b>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Physical and Chemical Properties</b>
<b>HMIS</b>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> D

Item #	10244
Safety Data Sheet	5443
Revision Date	May-20-2020
Issue Date	Jun-02-2020
Version	4
Revision Note	*** Updated value on SDS.
Disclaimer	

## **Ferric Chloride Solution DWG Grade**

All information, statements, data, advice, and/or recommendations, including, without limitation, those relating to storage, loading/unloading, piping, and transportation (collectively referred to herein as "information") are believed to be accurate, reliable, and based on reliable industry and regulatory references. However, no representation or warranty, express or implied, is made as to its completeness, accuracy, fitness for a particular purpose or any other matter, including, without limitation, that the practice or application of any such information is free of patent infringement or other intellectual property misappropriation. The Company providing this SDS is not engaged in the business of providing technical, operational, engineering, or safety information for a fee, and therefore, any such information provided herein has been furnished as an accommodation and without charge. All information provided herein is intended for use by persons having requisite knowledge, skill, and experience in the chemical industry. The Company providing this SDS shall not be responsible or liable for the use, application, or implementation of the information provided herein, and all such information is to be used at the risk, and in the sole judgment and discretion of such persons, their employees, advisors, and agents. This safety data sheet (SDS) is offered for your information, consideration, and investigation as required by federal hazardous products act and related legislation.

**End of Safety Data Sheet**

## Exhibit B

### CITY OF OLATHE INSURANCE REQUIREMENTS

These requirements apply to the vendor or contractor ("Vendor") entering into an Agreement with the City of Olathe ("City").

**A. Insurance.** Secure and maintain for the term of the Agreement insurance of such types and in at least such amounts as set forth below from a Kansas authorized insurance company which carries a Best's Policyholder rating of "A-" or better and carries at least a Class "VII" financial rating or better, unless otherwise agreed to by City:

1. Commercial General Liability: City must be listed by ISO endorsement or its equivalent as an additional insured on a primary and noncontributory basis on any commercial general liability policy of insurance. The insurance must apply separately to each insured against whom claim is made or suit is brought, subject to the limits of liability.

**Limits:** Per Occurrence, including Personal & Advertising Injury and Products/Completed Operations: \$1,000,000; General Aggregate: \$2,000,000.

2. Business Auto Insurance: City must be listed by ISO endorsement or its equivalent as an additional insured on a primary and noncontributory basis on any automobile policy of insurance. Insurance must apply separately to each insured against whom claim is made or suit is brought, subject to liability limits.

**Limits:** All Owned Autos; Hired Autos; and Non-Owned Autos: Per occurrence, combined single limit: \$500,000.

Notwithstanding the foregoing, if Vendor does not own any automobiles, then Vendor must maintain Hired and Non-Owned Auto insurance.

3. Worker's Compensation and Employer's Liability: Workers compensation insurance must protect Vendor against all claims under applicable state Worker's Compensation laws at the statutory limits, and employer's liability with the following limits.

**Limits:** \$500,000 Each Accident/\$500,000 Policy Limit/\$500,000 Each Employee

4. Professional Liability (if applicable): **Unless excused by the Agreement with the City**, Vendor must maintain for the term of this Agreement and for a period of three (3) years after the termination of this Agreement, Professional Liability Insurance.

**Limits:** Each Claim: \$1,000,000; General Aggregate: \$1,000,000.

5. Cyber Insurance (if applicable): **IF** accessing the City's network or City's data, **THEN** maintain the following coverages throughout for the term of this

Agreement and for a period of three (3) years after the termination of this Agreement: Cyber Incident/Breach Response and Remediation Expenses, Digital Data Recovery, Privacy and Network Security Liability, and Notification Expense.

**Limits:** Per claim, each insuring agreement: \$1,000,000; Aggregate: \$1,000,000.

- B. Exposure Limits.** Above are minimum acceptable coverage limits and do not imply or place a liability limit nor imply that the City has assessed the risk that may be applicable to Vendor. Vendor must assess its own risks and if it deems appropriate and/or prudent maintain higher limits and/or broader coverage. The Vendor's insurance must be primary, and any insurance or self-insurance maintained by the City will not contribute to, or substitute for, the coverage maintained by Vendor.
- C. Costs.** Insurance costs must be at Vendor's expense and accounted for in Vendor's bid or proposal. Any deductibles or self-insurance in the above-described coverages will be the responsibility and at the sole risk of the Vendor.
- D. Verification of Coverage**
1. Must provide certificate of insurance on ISO form or equivalent, listing the City as certificate holder, and additional insured endorsements for requested coverages.
  2. Any self-insurance must be approved in advance by the City and specified on the certificate of insurance. Additionally, when self-insured, the name, address, and telephone number of the claim's office must be noted on the certificate or attached in a separate document.
  3. When any of the insurance coverages are required to remain in force after final payment, additional certificates with appropriate endorsements evidencing continuation of such coverage must be submitted along with the application for final payment.
  4. For cyber insurance, the certificate of insurance confirming the required protection must confirm the required coverages in the "Additional Comments" section or provide a copy of the declarations page confirming the details of the cyber insurance policy.
- E. Cancellation.** No required coverage may be suspended, voided, or canceled, except after Vendor has provided thirty (30) days' advance written notice to the City.
- F. Subcontractor's Insurance:** If a part of this Agreement is to be sublet, Vendor must either cover all subcontractors under its insurance policies; **OR** require each subcontractor not so covered to meet the standards stated herein.