

CITY OF ALLIANCE, OHIO
2024 CHEMICAL SUPPLIES

SPECIFICATIONS FOR

Andrew Grove
Mayor of Alliance

Michael Dreger, Director
Public Safety & Service

***Delivery Location of Water Treatment and Wastewater Treatment Plants:**
12251 Rockhill Avenue N.E.
Alliance, OH 44601

2024 WATER/WASTEWATER TREATMENT SPECIFICATIONS

Aluminum Sulfate, Liquid (50% Alum)

The material shall be in liquid form, completely soluble in water and meet or exceed the current effective American Water Works Association Standard B403. Liquid alum shall be shipped by tank truck for delivery into a 10,000 gallon storage tank through a 3" delivery line/connection at the plant unloading site. **NOTE: The bidder will supply an Arsenic analysis for a representative sample of their aluminum sulfate product.**

Caustic Soda, Liquid

Liquid caustic soda shall contain approximately 50% sodium hydroxide (NaOH) and meet or exceed the current effective American Water Works Association Standard B501. Liquid caustic soda shall be shipped by tank truck into a 10,000 gallon storage tank through a 3" delivery line/connection at the Water Treatment Plant unloading site or into a 6,500 gallon storage tank through a 2" delivery line/connection at the Wastewater Treatment Plant.

Chlorine

Liquid Chlorine shall be delivered in one (1) ton containers and one-hundred fifty (150) pound cylinders and shall meet or exceed the current effective American Water Works Association Standard B301. Supplier shall be able to deliver the exact quantity ordered up to a maximum of 8 cylinders of each type. The bid price shall include the removal of empty tanks from the facility sites.

Activated Carbon, Powdered Minimum 1100 Iodine Number

Activated carbon shall be shipped in **bulk**. PAC shall be shipped by tank truck for delivery into a 4,100 cubic foot silo through a 4" fill pipe with a male cam and groove adapter connection at the plant unloading site. Transfer pressure from the conveying truck should not exceed 10 psig.

NOTE: A representative PAC sample volume of 1,000 cc shall be provided so PAC products may be tested and compared.

Powdered activated carbon shall meet the following minimum specifications:

- Suitable for purification of potable water and industrial water applications
- Meets AWWA standards
- Certified by ANSI-NSF, standard 61

Type – Bituminous Coal or mixture with wood

Iodine Number -- %min. = 1100 by ASTM D4607

Moisture -- %max. = 8 by ASTM D2867

Mesh Size – 99% min. 100 Mesh US, 95% min. 200 Mesh US, 90% min. 325 Mesh US, by ASTM D5158

Bulk Density – 0.42 – 0.48 g cm⁻³ by ASTM D2854

Ash – 10% max, by ASTM D2866

Abrasion Number – 90% min. by ASTM D3802

Activated Carbon, Powdered Minimum 800 Iodine Number

Activated carbon shall be shipped in 50-pound bags on a standard 3.5' x 3.5' wood pallet. Pallets shall contain not less than 20 bags (1,000 lbs.) and not more than 40 bags (2,000 lbs.). The bags shall be dry and in good condition and protected from the weather in transit. Normal shipment shall be for a minimum of three tons.

NOTE: A representative PAC sample volume of 1,000 cc shall be provided so PAC products may be tested and compared.

Powdered activated carbon shall meet the following minimum specifications:

- Suitable for purification of potable water and industrial water applications
- Meets AWWA standards
- Certified by ANSI-NSF, standard 61

Type -- Wood

Iodine Number -- % min. = 800 by ASTM D4607

Moisture -- % max. = 8 by ASTM D2867

Mesh Size – 99% min. 100 Mesh US, 95% min. 200 Mesh US, 90% min. 325 Mesh US, by ASTM D5158

Bulk Density – 0.42 – 0.48 g cm⁻³ by ASTM D2854

Ash – 10% max, by ASTM D2866

Abrasion Number – 90% min. by ASTM D3802

Activated Carbon, Powdered Minimum 1100 Iodine Number

Activated carbon shall be shipped in 50-pound bags on a standard 3.5' x 3.5' wood pallet. Pallets shall contain not less than 20 bags (1,000 lbs.) and not more than 40 bags (2,000 lbs.). The bags shall be dry and in good condition and protected from the weather in transit. Normal shipment shall be for a minimum of three tons.

NOTE: A representative PAC sample volume of 1,000 cc shall be provided so PAC products may be tested and compared.

Powdered activated carbon shall meet the following minimum specifications:

- Suitable for purification of potable water and industrial water applications
- Meets AWWA standards
- Certified by ANSI-NSF, standard 61

Type -- Wood

Iodine Number -- % min. = 1100 by ASTM D4607

Moisture -- % max. = 8 by ASTM D2867

Mesh Size – 99% min. 100 Mesh US, 95% min. 200 Mesh US, 90% min. 325 Mesh US, by ASTM D5158

Bulk Density – 0.42 – 0.48 g cm⁻³ by ASTM D2854

Ash – 10% max, by ASTM D2866

Abrasion Number – 90% min. by ASTM D3802

Hydrofluosilicic Acid

The Hydrofluosilicic acid shall contain approximately 23% Hydrofluosilicic acid by weight. The material shall meet or exceed the current effective American Water Works Association Standard B703. The material shall be delivered in 55-gallon drums for unloading at the plant site. Normal shipment is for a maximum of eight (8) to fifteen (15) drums per delivery. **The bid price shall include the removal of empty drums from the plant site at the time of delivery. The driver will be responsible for getting the pallets to the end of the trailer/edge of dock.**

Sodium Chlorite

Sodium chlorite shall be an aqueous solution, 25 percent by weight. The material shall meet or exceed the current effective American Water Works Association Standard B303. The material shall be delivered in 55-gallon drums for unloading at the plant site. Drums shall be made of stainless steel or any other suitable material that will not be attacked by the strongly oxidizing solution. Normal shipment is for a maximum of ten (10) to thirty-two (32) drums per delivery. **The bid price shall include the removal of empty drums**

from the plant site at the time of delivery. The driver will be responsible for getting the pallets to the end of the trailer/edge of dock.

Sodium Bisulfite (NaHSO₃):

The material shall be in liquid form with a concentration of between 38 – 42% NaHSO₃. Delivery will be by tote or bulk tank truck and pumped off. Approximate use: 9000 gallons.

Ferric Chloride (FeCl₃):

The material shall be in liquid form. It must be able to pass through a 300-micron filter. Delivery will be by bulk tank truck into a 6500-gallon tank. The supplier must provide a Certificate of Analysis form for Ferric Chloride Solution with each delivery. Bid price to be in cost per dry ton. Approximate use: 5 dry tons.

Phosphoric Acid

The material shall be 75% Technical Grade in liquid form. Delivery will be by tote or bulk tank truck and pumped off. Approximate use: 9000 gallons.

Hydrogen Peroxide

Hydrogen peroxide shall be an aqueous solution of 50% by weight. The material shall meet or exceed all standards set by NSF/ANSI 60 for potable water. The material shall be delivered in bulk quantities of between 1,000 and 2,200 gallons into a 2,500-gallon bulk tank through a 2" quick disconnect connection/ delivery line at the Water Treatment Plant unloading site.

Peracetic Acid (PAA):

The Peracetic Acid shall contain approximately 15% Peracetic Acid by weight. Delivery will be by tote or 55-gallon drums for unloading at the plant. The bid price shall include the removal of empty totes or drums from the plant site. Approximate use: 9000 gallons.

Algaecide/Bactericide

- The active ingredient shall be copper sulfate pentahydrate with a metallic copper equivalent of 5% by weight.
- The product must self-disperse evenly without mixing or agitating.
- The copper must not precipitate out of solution but remain fully dissolved indefinitely until it meets demand.
- The copper must be 100% soluble in water in all proportions.
- The release of copper must be controlled by biological demand rather than water conditions.
- The product pH must be 0.2 – 0.3.
- Product must be labeled for use in sedimentation basins; Equipment /Structures that deliver water directly to publicly owned water treatment facilities to include pipes, intake structures, gatehouses, screens, pumping stations, weirs, and penstocks.
- Product must have EPA Signal Word "WARNING" and must be rated as EPA Toxicity Category II
- Product must not cause irreversible eye damage under EPA Precautionary Statements' Section of label.
- The product must be environmentally safe; nontoxic to fish and humans when used in recommended dosages.
- The shelf life of the product shall be a minimum of 5 years without exposure to freezing temperatures.
- All containers must be labeled with production lot numbers.
- Successful bidders must furnish university studies proving the product will remove geosmin, natural organic matter, THM's and HAA's.

- Successful bidder must provide minimum of three municipal installations 8 MGD or larger with references where product is being used specifically for taste & odor / geosmin removal.
- Provide Start-up services for 1 trip, over two days to assist with installation, optimization, and technical assistance.
- Provide remote assistance from in-house engineering department; engineer or Ph.D. with a minimum of 10 years' experience in municipal water projects.
- The product must be registered with the Federal EPA as an algaecide/bactericide and certified to NSF Standard 60.

Calcium Hypochlorite

Calcium Hypochlorite is a water soluble, granulated oxidizer that contains approximately 68% Calcium Hypochlorite . Granulated Calcium Hypochlorite will be delivered by truck in 100 pound buckets. These buckets can be ordered individually or pallets of up to 16 containers. These containers are not returnable.

Liquid Emulsion Polymer

See Separate Spec Sheet

NOTICE FOR 2024 SUPPLY BIDS

Due to the continuing uncertainties with supply chains and the tremendous volatility in the pricing of some commodities, the City of Alliance may choose to award supply contracts for periods of less than the standard one year. As a result, we request that bidders supply us with three prices for any items being bid on.

These prices would be:

- Your price if supply of the item is contracted for a year, with the year being January 1, 2024, through December 31, 2024.
- Your price if supply of the item is contracted for a quarter year, with the quarter being January 1, 2024, through March 31, 2024.
- Your price if supply of the item is contracted for one month, with that month being January 1, 2024, through January 31, 2024.

Please also note that the contract price is for “orders placed” during the contract period.

Any questions related specifically to this should be directed to the Director of Public Safety and Service by emailing ssd@allianceoh.gov.

PROPOSAL FORM FOR 2024 CHEMICALS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Bid</u>		
			<u>Monthly</u>	<u>Quarterly</u>	<u>Year</u>
Aluminum Sulfate, Liquid	200,000	gallon	_____	_____	_____
Caustic Soda, Liquid	150,000	gallon	_____	_____	_____
Chlorine	60	one-ton cylinders	_____	_____	_____
Chlorine	4	150# cylinders	_____	_____	_____
Bulk Powdered Activated Carbon					
Minimum 1100 Iodine #	25	tons	_____	_____	_____
Bagged Powdered Activated Carbon					
Minimum 800 Iodine #	15	tons	_____	_____	_____
Minimum 1100 Iodine #	15	tons	_____	_____	_____
Hydrofluosilicic Acid	100	55 gal. drums	_____	_____	_____
Sodium Chlorite, Liquid	370	55 gal. drums	_____	_____	_____
Sodium Bisulfite	9,000	gallon	_____	_____	_____
Ferric Chloride	5	dry ton	_____	_____	_____
Phosphoric Acid	9,000	gallon	_____	_____	_____
Hydrogen Peroxide	6,000	gallon	_____	_____	_____
Peracetic Acid (PAA)	9,000	gallon	_____	_____	_____
Calcium Hypochlorite, granular	100	pounds	_____	_____	_____
Algaecide/Bactericide	14	totes	_____	_____	_____
Polymer	(see Polymer Spec Sheet)				

PROPOSAL FORM FOR 2024 CHEMICALS

BIDDER: _____

ADDRESS: _____

PHONE: _____ **FAX:** _____

E-mail Address: _____

PRINTED SIGNATURE: _____

AUTHORIZED SIGNATURE: _____

TITLE: _____

GENERAL TERMS AND CONDITIONS

1. **Special Conditions:** Special conditions included in the Bid Document shall take precedence over any general provisions hereinafter set forth.
2. **Specifications:** Unless otherwise stated by the bidder the proposal will be considered as being in strict accordance with the specifications outlined in the Bid Document.
 - a. References to a particular trade name, manufacturer's catalog or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of the City only. They should not be construed as excluding proposals on other types of materials, equipment and supplies as equal to that specified. However, the bidder, if awarded a contract, will be required to furnish a particular item referred to in the specifications or description unless a departure or substitution is clearly noted and described in the proposal and approved by the Safety Service Director's Office.
3. All exceptions to the specifications must be clearly defined in supplemental information submitted with the bid. Any additional information the prospective Bidder believes is relevant to awarding a contract may be included. Descriptive literature may be included where applicable.
4. The materials needed are to be purchased between January 1, 2024, and December 31, 2024. The quantities shown are estimated quantities and are not intended to be the actual amount purchased. The estimated quantities are shown only to serve as a guide in helping the bidder know the approximate quantity involved.
5. Prices bid for each item shall include delivery to Alliance Street Department, Water Sewer Department, Water Treatment Department, Wastewater Department, Parks Department, Fire Department, City Hall Safety Building, Freedom Center, and City Administration Building & Annexes unless otherwise specified herein.
6. Quotations to include all charges for delivery, F.O.B. Destination-Freight Prepaid and inside delivery, unless otherwise stated by the bidder in a Bid Document. **THE CITY IS EXEMPT FROM ALL FEDERAL AND STATE TAXES.**
7. Payments for materials will be made monthly upon receipt of invoices for materials delivered during previous months.
8. **BE SURE TO INSERT UNIT PRICES AND CARRY OUT EXTENSIONS.** Errors or omissions could result in your bid being declared "**invalid**". In case of an error in extension of prices, the unit price will govern. All quoted bid prices must be firm, as no price adjustment will be allowed on the purchase order.
9. Sealed bids will be received by the Director of Public Safety and Service as indicated on the attached legal notice. Bidders may submit a proposal for any of the various items for which bids are requested. Proposals must be made on the form attached.
10. Verbal instructions given by any of the Officers, Agents, or Employees of the City shall not be binding upon the City. Instructions in writing only, from the Safety Service Department of the City of Alliance, shall be binding.
11. The Bidder agrees, if awarded the contract, to deliver the quantity awarded, as instructed, and that all articles shall be subject to the inspection and approval of the City. In the event that any of the said articles should be rejected as unsuitable or not in conformity with these specifications, such articles shall at once be removed and other articles of proper quality as set forth in these specifications shall be furnished in place thereof, all at the expense of the successful bidder.
12. In the case of non-compliance by the successful bidder, the City retains the right to cancel the awarded contract at any time during the contract period.