



Standard Purification  
551 N.US Hwy 41  
Dunnellon, FL 34432  
P: 888.616.5959  
F: 561.401.9059

September 4, 2015

Misty Camardelle  
Jefferson Parish  
Purchasing Depart  
General Gov Bldg  
200 Derbigny S Ste. 440  
Gretna, LA. 70053

**Regarding: Bid No. 50-00114227 – Various Chemicals for the Department of Public Works**

Dear Ms. Misty Camardelle,

We appreciate the opportunity to bid for your powdered activated carbon business.

Standard Purification manufactures and distributes a variety of powdered activated carbon products for potable water applications. Our steam-activated Watercarb-L/O is produced from high-quality raw material ensuring outstanding performance in removal of organic contaminants from potable water.

**Louisiana Preference (LSA-R.S.38.2251-2261): Watercarb-L/O is distributed by Standard Purification but manufactured in, and ships from Coushatta, LA. We sight the preference for materials manufactured in Louisiana under 'Instructions and General Conditions' in the bid specifications.**

We respectfully submit this response within specification for the supply of Powdered Activated Carbon at the East and West Bank Jefferson Parish Water Treatment Plants.

Watercarb-L/O meets or exceeds the applicable provisions of AWWA Standard B600 in all respects, and is certified to ANSI / NSF Standard 61.

We are currently supplying powdered activated carbon to numerous large municipalities throughout the United States, and welcome the opportunity to serve the Jefferson Parish.

Please feel free to contact me anytime on 561.310.4005 for additional information.

Regards,

Tony Julian  
President  
Standard Purification  
P: 561.310.4005  
E: [tjulian@standardpurification.com](mailto:tjulian@standardpurification.com)

Standard Purification LLC [www.standardpurification.com](http://www.standardpurification.com)



**Bid Number 50 – 00114227**

**TWO (2) YEAR CONTRACT FOR VARIOUS CHEMICALS FOR THE  
JEFFERSON PARISH DEPARTMENT OF PUBLIC WORKS – WATER**

**BID DUE: THURSDAY, SEPTEMBER 10, 2015 AT 2:00 PM**

**ATTENTION VENDORS!!!**

**Please review all pages and respond accordingly, complying with all provisions  
in the technical specifications and Jefferson Parish Instructions for Bidders and  
General Terms and Conditions. All bids must be received in the Purchasing  
Department by the bid due date and time.**

**Jefferson Parish Purchasing Department  
200 Derbigny Street  
General Government Building, Suite 4400  
Gretna, LA 70053**

**Buyer Name: Misty A. Camardelle  
Buyer Email: [mcamardelle@jeffparish.net](mailto:mcamardelle@jeffparish.net)  
Buyer Phone: 504-364-2683**

---

**Two (2) Year Contract for Various Chemicals for the Jefferson Parish  
Department of Public Works - Water**

**BID SPECIFICATIONS FOR CHEMICALS**

Liquid Ammonia, Zinc Sodium Hexametaphosphate, Bulk Polydadmac Polyelectrolyte Clarifloc,  
Ammonium Hydroxide Solution, Powdered Activated Carbon, & Liquid Chlorine, Fluorosilicic  
Acid, And Liquid Aluminum Sulfate

**Specifications for Line # 0010 (Bulk Liquid Ammonia)**

- A. The Liquid Ammonia must be certified for use in drinking water under National Sanitation Foundation Standard 60.
  - B. The vendor must provide for the transfer of the Bulk Liquid Ammonia via his own hoses and truck mounted transfer pump. Vendor's hose connections must be compatible with the 1-1/4 inch acme adaptor on our tanks. Vendors must verify compatibility of their hose connections with our tanks before bidding (Contact Plant Superintendents at 504-838-4398 for Eastbank and 504-349-5085 for Westbank). The Ammonia will be placed into the storage tanks at each waterworks location by the delivery driver and will be supervised by the appropriate waterworks personnel.
  - C. The Ammonia vendor shall provide an Annual Ammonia Safety Training Program at each waterworks facility as part of the contract obligation at no additional charge.
- 

**Specifications for Line #0020 (Zinc Sodium Hexametaphosphate)**

- A. The Zinc Sodium Hexametaphosphate bid must be equivalent to Virginia Chemical Vir Chem 937, Shannon Chemical Shan-No-Cor, or Calgon C-8 Or C-9, containing no less than 65% as Phosphate and 6.5% as Zinc; must be a free-flowing granular material sized such that at least 75% will pass a 10 mesh sieve and will be retained on a 80 mesh sieve; and must be soluble up to 3 lb/gal of cold tap water and remain free of precipitates for at least 5 days after preparation. Products requiring hot water for solution preparation are not acceptable.
- B. The Zinc Sodium Hexametaphosphate must be certified for use in drinking water under National Sanitation Foundation Standard 60.
- C. A technical information sheet indicating the percent composition of active ingredients must accompany each bid. The bid award will be based upon the lowest price per ton of the primary active ingredient, Metaphosphate (P205).

- D. The Zinc Sodium Hexametaphosphate must be supplied in 50 lb pails which are properly palletized on wooden pallets such that unloading can be promptly accomplished by waterworks personnel using their forklift.
- 

**Specifications for Line #0030 (Bulk Polydadmac Polyelectrolyte Clarifloc C-308p)**

- A. The Polydadmac (Polydiallyldimethylammonium Chloride) bid must be one of the following:
- a. Polydyne C-308P, Cytec Industries 587-C, Chemlink per Chem 550, Nalco 8792, G.S. Robin 120, CPS Chemical Agefloc Wt-20hv, Callaway Chemical Jay Floc 842, Citichem Chemfloc 615, or Calgon Cat-Floc T, T2, L or LS.
- B. The Polydadmac shall have a specific gravity of 1.03 - 1.05 g/ml, a viscosity less than 300 cps at 25 degrees, a shelf life of 12-24 months, and freezing point of minus 5 degrees C.
- C. The Polydadmac must meet the requirements of the latest version of American Water Works Association Standard B451 and must be certified for use in drinking water under National Sanitation Foundation Standard 60 to a dosage of 10 mg/L.
- D. Each vendor must bid only one Polydadmac product, clearly indicating the product name on the bid. A technical information sheet on the product bid award will be based upon the lowest price per ton of active ingredient.
- E. Shippers must provide the necessary properly sized equipment to quickly unload their product into the designated storage tanks at the delivery site.
- 

**Specifications for Line #0040 (Ammonium Hydroxide Solution)**

- A. The 29.4% Ammonium Hydroxide Solution must be certified for use in drinking water Under National Sanitation Foundation Standard 60.
- B. The bid price of the Ammonium Hydroxide shall include any and all fees associated with drum return, such as environmental or cleaning fee.
- C. Shippers must provide necessary properly sized equipment to quickly unload their product at the delivery site.
-

**Specifications for Line #0050 (Bulk Powdered Activated Carbon for Broad Spectrum)**

- A. The Powdered Activated Carbon must meet the requirements of the latest version of American Water Works Association Standard B600, must have a Phenol value of 1.8 - 3.2 g/L, and must be certified for use in drinking water under National Sanitation Foundation Standard 60.
  - B. Each vendor must bid only one PAC product, clearly indicating the product name on the bid. A technical information sheet on the product bid must accompany the bid.
  - C. Shippers must provide the necessary properly sized equipment to quickly unload their product into the designated storage tanks at the delivery site.
- 

**Specifications for Lines #0060 & #0070 (Liquid Chlorine)**

- A. The Liquid Chlorine must meet the requirements of the latest version of American Water Works Association Standard B301 and must be certified for use in drinking water under National Sanitation Foundation Standard 60.
  - B. A comprehensive Quality Tracking Program (QTP) must be submitted by the supplier with the bid proposal and annually thereafter. The QTP must address the required Chlorine purity specifications and include documentation and reporting protocols to insure Chlorine Cylinder Integrity.
  - C. Chlorine Cylinder Valves must be properly aligned and the valve threads must be in good condition upon receipt. Otherwise the cylinder will be rejected and returned to the vendor.
  - D. The Chlorine vendor shall provide an Annual Chlorine Safety Training Program at each waterworks facility as part of the contract obligation at no additional charge.
  - E. Shippers must provide the necessary equipment to quickly unload one ton cylinders at the delivery site and pick up empty cylinders. Any cost associated with the pickup and return of empty cylinders shall be included in the bid price.
- 

**Specifications for Item #0080 (Fluorosilicic Acid)**

- A. The Fluorosilicic Acid must meet the requirements of the latest version of American Water Works Association Standard B703 and must be certified for use in drinking water under National Sanitation Foundation Standard 60.
- B. The bid price of the Fluorosilicic Acid shall be made on a 100% dry basis such that a shipment of 25% Fluorosilicic Acid shall be paid at a rate of 25% of the bid price. A

certified analysis indicating the percentage Fluorosilicic Acid must accompany each shipment.

- C. Shippers must provide the necessary properly sized equipment to quickly unload their product into the designated storage tanks at the delivery site.
- D. In the event that any commodity sought in this bid is the subject of a nationwide product shortage which can be verified by Jefferson Parish, then Jefferson Parish will agree to suspend the obligation of the vendor to supply that commodity during any period of its unavailability. Price is based on 100 % acidity adjusted basis and 20 ton minimum releases.

---

**Specifications for Item #0090 (Liquid Aluminum Sulfate)**

- A. The Liquid Aluminum Sulfate must be approximately 48.5% by weight dry Aluminum Sulfate (  $AL_2(SO_4)_3 \cdot 14H_2O$ , MW=594) and meet the requirements of the latest version Of American Water Works Association Standard B403, and must be certified for use in drinking water under National Sanitation Foundation Standard 60.
  - B. The bid price of the Liquid Aluminum Sulfate shall be made on a 100% dry basis such that a shipment of 48.5% Liquid Aluminum Sulfate shall be paid at a rate of 48.5% of the bid price. A certified analysis indicating the percentage must accompany each shipment.
  - C. Shippers must provide the necessary properly sized equipment to quickly unload their product into the designated storage tanks at the delivery site.
-

---

**Water Department Chemical Bid quantities**

**0001 Bulk Liquid Ammonia** delivered freight prepaid in 2 or 3 ton shipments to both the Eastbank and the Westbank Water treatment plants as required .

**220 tons**

**0002 Zinc Sodium Hexametaphosphate** delivered freight prepaid in 20 ton shipments to both the Eastbank and the Westbank Water treatment plants as required .

**120 tons**

**0003 Bulk PolyDADMAC Polyelectrolyte** delivered freight prepaid in 20 ton shipments to both the Eastbank and the Westbank Water treatment plants as required .

**1300 tons**

**0004 Ammonium Hydroxide Solution, 29.4%,** in 55 gal drums delivered freight prepaid in 10 drum shipments to 171A Birch Lane, Grand Isle, LA 70358 as required .

**90 drums**

**0005 Bulk Powdered Activated Carbon** for broad spectrum organics removal delivered freight prepaid in 20 ton shipments to both the Eastbank and the Westbank Water treatment plants as required .

**400 tons**

**0006 Liquid Chlorine** in one ton cylinders delivered freight prepaid in 20 ton shipments to both the Eastbank and the Westbank Water treatment plants as required .

**1300 tons**

**0007 Liquid Chlorine** in 150 pound cylinders delivered **in 1500 lb shipments** freight prepaid to West Jefferson Waterworks 171A Birch Lane, Grand Isle, LA 70358 as required

**30,000 pounds**

**0008 Bulk Fluorosilicic Acid** bid on a 100% dry basis delivered freight prepaid in 20 ton shipments to both the Eastbank and the Westbank Water treatment plants as required .

**140 tons**

**0009 Bulk Liquid Aluminum Sulfate** bid on a 100% dry basis delivered freight prepaid in 20 ton shipments to both the Eastbank and the Westbank Water treatment plants as required .

**3100 tons**

DATE: 8/26/2015

INVITATION TO BID  
THIS IS NOT AN ORDER

Page: 1

BID NO.: 50-00114227

## JEFFERSON PARISH

PURCHASING DEPARTMENT  
P.O. BOX 9  
GRETNA, LA. 70054-0009  
504-364-2678

BUYER: MCamardelle@jeffparish.net

BIDS WILL BE RECEIVED IN THE PURCHASING DEPARTMENT, SUITE 4400, JEFFERSON PARISH GENERAL GOVERNMENT BUILDING, 200 DERBIGNY STREET, GRETNA, LA 70053 UNTIL 2:00 PM, 9/10/2015 AND PUBLICLY OPENED THEREAFTER.

### LATE BIDS WILL NOT BE ACCEPTED

Unless submitting via online (see Page 3), each bid must be submitted in a sealed envelope bearing on the outside; the name of the Bidder, his address, and the name of the project for which the bid is submitted and the bid number.

**NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION.**

### INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

#### THE FOLLOWING INSTRUCTIONS APPLY TO ALL BIDS

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647.

All vendors submitting bids must register as a Jefferson Parish vendor if not already yet registered. Bidders may be required to furnish current W-9 Forms and respective Tax Identification Numbers within 10 days after bid opening if such information is not on file or not up to date. Registration forms may be downloaded from [www.purchasing.jeffparish.net](http://www.purchasing.jeffparish.net) and clicking on Vendor Information.

All quotations shall be based on F.O.B. Agency warehouse or job site, anywhere within the Parish as designated by the Purchasing Department. This provision does not apply to public works projects

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.

Bidders should submit all questions in writing and fax them to the Purchasing Department at (504) 364-2693 no later than FIVE (5) working days prior to bid opening. Bid numbers should be mentioned in all requests. Questions may also be emailed to the buyer for this bid at the email address listed above. If submitting online, vendors may send questions via the E-Procurement site no later than Five (5) working days prior to the bid opening.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum. Please note that all official communication will be expressed in the form of an addendum.

All formal Addenda require written acknowledgement on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected. JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

The purpose and intention of this invitation to bid is to afford all suppliers an equal opportunity to bid on all construction, maintenance, repair, operating supplies and/or equipment listed in this bid proposal. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications.

Visit our website at [HTTP://PURCHASING.JEFFPARISH.NET](http://PURCHASING.JEFFPARISH.NET)



JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. Vendors must not alter the bid forms. Doing so will cause the bid to be rejected.

If the bid exceeds \$30,000.00 and the company is duly authorized to do business in the state of Louisiana, a corporate resolution must be submitted with the bid or the person signing the bid documents must be listed on the Louisiana Secretary of State's website as an officer of the corporation, unless bidder has otherwise complied with LSA-R.S. 38:2212(B)(5). If the bid is in excess of \$30,000 and bidder is registered out of the state of Louisiana, a corporate resolution must be submitted with the bid, unless bidder has otherwise complied with LSA-R.S. 38:2212(B)(5). Failure to comply will cause bid to be rejected; the Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event. Bids submitted by Owner or Sole Proprietorships must include certification that he or she owns the entity for which the bid is signed. Sole proprietors submitting bids for public works projects shall within 10 days after bid opening submit sole proprietorship certification.

NOTE: A sample corporate resolution can be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document. A sample certification of sole proprietorship can also be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document.

### INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

A. AWARD OF CONTRACT: JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE. IN THE EVENT OF SPLIT AWARD, THE PURCHASING DEPARTMENT MAY CONTACT VENDORS TO REQUEST REQUIRED AFFIDAVITS. THOSE VENDORS WILL HAVE 10 DAYS FROM THE DATE OF NOTICE TO SUBMIT COMPLETE, SIGNED AND NOTARIZED AFFIDAVITS IN ORIGINAL FORMATS.

All bid prices shall remain valid for 45 days. Jefferson Parish and the lowest responsive and responsible bidder(s) by mutual written consent may mutually agree to extend the deadline for award by one (1) or more extensions of thirty (30) calendar days.

Preference is hereby given to materials, supplies, and provisions produced, manufactured or grown in Louisiana, quality being equal to articles offered by competitors outside the state. "LSA-R.S.38:2251-2261"

B. USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

C. CANCELLATION OF CONTRACT: JEFFERSON PARISH reserves the right to cancel all or any part if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel any contract at anytime and for any reason by issuing a THIRTY (30) day written notice to the contractor.

For good cause and as consideration for executing a contract with Jefferson Parish, vendor conveys, sells, assigns and transfers to Jefferson Parish or its assigns all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Louisiana, relating to the particular good or services purchased or acquired by Jefferson Parish.

D. PRICES: Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and Parish taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A17.1-1961).

**INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS**

Advertised bids will be tabulated and a copy of the tabulation will be forwarded to each responding bidder.

**IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS**

**This Electronic Procurement System allows vendors the convenience of reviewing and submitting bids online. This is a secure site and authorized personnel have limited read access only. Please note requirements contained in this bid package for electronic bid submission.**

**Please visit the Purchasing Department webpage at <http://purchasing.jeffparish.net> to register and review Jefferson Parish solicitations.**

The general specifications for construction projects and the purchase of materials, services and/or supplies are those adopted by the JEFFERSON PARISH Council by Resolution No. 113646 or 113647 dated 12/09/09. The general conditions adopted by this resolution shall be considered as much a part of this document as if they were written wholly herein. A copy may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at <http://purchasing.jeffparish.net> and clicking on Online Forms.

**ADDITIONAL REQUIREMENTS FOR THIS BID**

**PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.**

**5, 10, 12, 13, 15**

1. All bidders must attend the pre-bid conference in relation to this bid; attendance is mandatory. Failure to attend will prohibit a company from submitting a bid. Vendors arriving after the mandatory pre-bid conference begins will not be allowed to sign in as evidence of attendance.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.
4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid envelope. Failure to comply will cause the bid to be rejected. Additionally if submitting the bid electronically, then the license number must be entered in the appropriate field in the Electronic Procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.

**INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS**

6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precautions must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.
7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise state in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. Unless otherwise stated in the bid specifications, the successful bidder will be required to procure standard insurance policies evidencing Parish-mandated insurance requirements as indicted on the attached sheet. The current certificate of insurance must be submitted by low bidder within 10 days after bid opening to the Purchasing Department. Failure to comply will cause bid to be rejected. JEFFERSON PARISH reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. Acceptable forms shall be limited to cashier's check, certified check, or surety bid bond. All sureties must be in original format (no copies) If submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits (in Original Format) required; Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit and E-Verify Affidavit must be completed, signed, notarized and submitted by low bidder within 10 days after bid opening to the Purchasing Department on all solicitations for construction, alteration or demolition of public building or project, including but not limited to requirements found in LSA-RS 38:2212.9; LSA-RS 38:2212.10; LSA-RS 38:2224; Code of Ordinances, Jefferson Parish, Louisiana, Sec 2-923.1. Failure to comply will cause bid to be rejected; the Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format for the bid to be considered responsive.
15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits (in Original Format) required; Non-Collusion Affidavit, and Campaign Contribution Affidavit must be completed, signed, notarized and submitted by low bidder with bid submission within 10 days after bid opening to the Purchasing Department. See LSA-RS 38:2212.10; LSA-RS 38:2224; Code of Ordinances, Jefferson Parish, Louisiana, Sec 2-923.1 Failure to comply will cause bid to be rejected; the Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event. For the convenience of vendors, all affidavits have been combined into one form entitled NON-PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format for the bid to be considered responsive.
16. Since a bid surety is required, bid response may not be faxed. Bid submission will only be accepted online or as delivered to the Purchasing Department, 200 Derbigny Street, Suite 4400, Gretna, LA 70053 by 11am on the bid due date. All sureties must be in original format (no copies).

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission: and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to Jefferson Parish Code of Ordinances Section 2-155.10(19). By submitting a bid, vendor acknowledges this and will abide by all provisions of the referenced Jefferson Parish Code of Ordinances.

**All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form**

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES \_\_\_\_\_ NO X

MAXIMUM ESCALATION PERCENTAGE REQUESTED \_\_\_\_\_%

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF 45 days per instruction

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

**DELIVERY: FOB JEFFERSON PARISH**

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

2 - 7 days**LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable)**NA**THIS SECTION MUST BE COMPLETED BY BIDDER:**FIRM NAME: Standard PurificationADDRESS: 551 N US Hwy 41CITY, STATE: Dunnellon, FLZIP: 34432TELEPHONE: ( 352 ) 465-5959FAX: ( 352 ) 465-0679EMAIL ADDRESS: tjulian@standardpurification.com

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: None as of 9/4/15

NUMBER: \_\_\_\_\_

NUMBER: \_\_\_\_\_

NUMBER: \_\_\_\_\_

TOTAL PRICE OF ALL BID ITEMS: \$ 395,600

AUTHORIZED

SIGNATURE: Tony Julian

Printed Name

TITLE: President

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

**NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.**

## INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00114227

SEALED BID

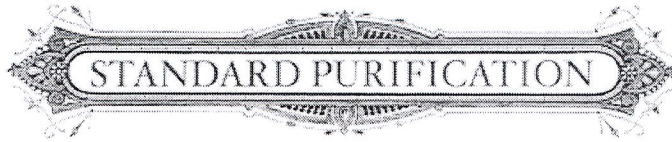
| ITEM<br>NUMBER | QUANTITY | U/M  | DESCRIPTION OF ARTICLES   | UNIT PRICE<br>QUOTED | TOTALS    |
|----------------|----------|------|---|----------------------|-----------|
| 1              | 220.00   | TN   | <p>TWO (2) YEAR CONTRACT FOR VARIOUS CHEMICALS FOR THE JEFFERSON PARISH DEPARTMENT OF PUBLIC WORKS - WATER</p> <p>0010 BULK LIQUID AMMONIA<br/>(DELIVERED FREIGHT PREPAID IN</p> <p>APPROXIMATELY 2 OR 3 TON SHIPMENTS TO BOTH THE EASTBANK AND WESTBANK WATER TREATMENT PLANTS AS REQUIRED).</p> <p>DELIVERY LOCATIONS:</p> <p>EASTBANK PLANT - JEFFERSON, LA 70121<br/>WESTBANK PLANT - MARRERO, LA 70072</p> | NB                   | NB        |
|                |          |      |   |                      |           |
| 2              | 120.00   | TN   | <p>0020 ZINC SODIUM HEXAMETAPHOSPHATE<br/>(DELIVERED FREIGHT PREPAID IN 20 TON</p> <p>SHIPMENTS TO BOTH EASTBANK AND WESTBANK WATER TREATMENT PLANTS AS REQUIRED).</p> <p>DELIVERY LOCATION:</p> <p>EASTBANK PLANT - JEFFERSON, LA 70121<br/>WESTBANK PLANT - MARRERO, LA 70072</p>   | NB                   | NB        |
|                |          |      |   |                      |           |
| 3              | 1,300.00 | TN   | <p>0030 BULK POLYDADMAC POLYELECTROLYTE CLARIFLOC C-308P (DELIVERED FREIGHT</p> <p>PREPAID IN 20 TON SHIPMENTS TO BOTH EASTBANK AND WESTBANK WATER TREATMENT PLANTS AS REQUIRED).</p> <p>DELIVERY LOCATION:</p> <p>EASTBANK PLANT - JEFFERSON, LA 70121<br/>WESTBANK PLANT - MARRERO, LA 70072</p>  | NB                   | NB        |
|                |          |      |   |                      |           |
| 4              | 90.00    | DRUM | <p>0040 AMMONIUM HYDROXIDE SOLUTION, 29.4% IN 55 GALLON DRUMS</p> <p>(DELIVERED FREIGHT PREPAID IN 10 DRUM SHIPMENTS AS REQUIRED).</p> <p>DELIVERY TO: GRAND ISLE, LA 70358</p>   | NB                   | NB        |
|                |          |      |   |                      |           |
| 5              | 400.00   | TN   | <p>0050 BULK POWDERED ACTIVATED CARBON FOR BROAD SPECTRUM ORGANICS REMOVAL</p> <p>(DELIVERED FREIGHT PREPAID IN 20 TON SHIPMENTS TO BOTH EASTBANK AND WESTBANK WATER TREATMENT PLANTS AS REQUIRED).</p> <p>DELIVERY LOCATION:</p> <p>EASTBANK PLANT - JEFFERSON, LA 70121</p>   | \$989.00             | \$395,600 |
|                |          |      |   |                      |           |

## INVITATION TO BID FROM JEFFERSON PARISH - continued

BID.NO.: 50-00114227

SEALED BID

| ITEM<br>NUMBER | QUANTITY  | U/M | DESCRIPTION OF ARTICLES   | UNIT PRICE<br>QUOTED | TOTALS |
|----------------|-----------|-----|---|----------------------|--------|
| 6              | 1,300.00  | TN  | WESTBANK PLANT - MARRERO, LA 70072<br><br>0060 LIQUID CHLORINE IN 1 TON CYLINDERS<br>(CYLINDERS DELIVERED FREIGHT PREPAID<br><br>IN 20 TON SHIPMENTS TO BOTH EASTBANK<br>AND WESTBANK WATER TREATMENT PLANTS<br>AS REQUIRED).<br><br>DELIVERY LOCATION:<br><br>EASTBANK PLANT - JEFFERSON, LA 70121<br>WESTBANK PLANT - MARRERO, LA 70072 | NB                   | NB     |
|                |           |     |   |                      |        |
| 7              | 30,000.00 | LB  | 0070 LIQUID CHLORINE IN 150 POUND<br>CYLINDERS<br><br>(CYLINDERS DELIVERED IN 1500 LB<br>SHIPMENTS FREIGHT PREPAID AS REQUIRED)<br><br>DELIVERY TO: GRAND ISLE, LA 70358  | NB                   | NB     |
|                |           |     |   |                      |        |
| 8              | 140.00    | TN  | 0080 BULK FLUOROSILICIC ACID BID ON A<br>100% DRY BASIS (DELIVERED FREIGHT<br><br>PREPAID IN 20 TON SHIPMENTS TO BOTH<br>EASTBANK AND WESTBANK WATER TREATMENT<br>PLANTS AS REQUIRED).<br><br>DELIVERY LOCATION:<br><br>EASTBANK PLANT - JEFFERSON, LA 70121<br>WESTBANK PLANT - MARRERO, LA 70075  | NB                   | NB     |
|                |           |     |   |                      |        |
| 9              | 3,100.00  | TN  | 0090 BULK LIQUID ALUMINUM SULFATE<br>BID ON A 100% DRY BASIS (DELIVERED<br>FREIGHT PREPAID IN 20 TON SHIPMENTS<br>TO BOTH EASTBANK AND WESTBANK WATER<br>TREATMENT PLANTS AS REQUIRED).<br><br>DELIVERY LOCATION:<br>EASTBANK PLANT - JEFFERSON, LA 70121<br>WESTBANK PLANT - MARRERO, LA 70072   | NB                   | NB     |
|                |           |     |   |                      |        |



Standard Purification  
551 N.US Hwy 41  
Dunnellon, FL 34432  
Phone: 352.465.5959  
Toll-free: 888.616.5959  
Fax: 352.465.0679

April 18, 2015

To whom it may Concern:

The purpose of this letter is to serve as Certificate of Authority granting Tony Julian executive authority in his capacity as President of Standard Purification.

Per its bylaws and related employment agreements, the Standard Purification Board of Directors hereby grants Tony Julian the authority to sign official documents on behalf of Standard Purification.

Regards,

A handwritten signature in blue ink, appearing to be "J Sharpe", is written over the word "Regards,".

Jim Sharpe  
Chairman and Chief Executive Officer  
Standard Purification

---

## **Non-Public Works Bid Affidavit Instructions**

- **Affidavit is supplied as a courtesy to Affiants, but it is the responsibility of the affiant to insure the affidavit they submit to Jefferson Parish complies, in both form and content, with federal, state and parish laws.**
- **Affidavit must be signed by an authorized representative of the entity or the affidavit will not be accepted.**
- **Affidavit must be notarized or the affidavit will not be accepted.**
- **Notary must sign name, print name, and include bar/notary number, or the affidavit will not be accepted.**
- **Affiant MUST select either A or B when required or the affidavit will not be accepted.**
- **Affiants who select choice A must include an attachment or the affidavit will not be accepted.**
- **If both choice A and B are selected, the affidavit will not be accepted.**
- **Affidavit marked N/A will not be accepted.**
- **It is the responsibility of the Affiant to submit a new affidavit if any additional campaign contributions are made after the affidavit is executed but prior to the time the council acts on the matter.**

*Instruction sheet may be omitted when submitting the affidavit*



---

**Non-Public Works Bid****AFFIDAVIT****STATE OF** Florida**PARISH/COUNTY OF** Palm Beach

BEFORE ME, the undersigned authority, personally came and appeared: \_\_\_\_\_

Tony Julian, (Affiant) who after being by me duly sworn, deposed and said that he/she is the fully authorized President of Standard Purification (Entity), the party who submitted a bid in response to Bid Number 50-00114227, to the Parish of Jefferson.

Affiant further said:

Campaign Contribution Disclosures

**(Choose A or B, if option A is indicated please include the required attachment):**

**Choice A** \_\_\_\_\_ Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

**Choice B** X there are **NO** campaign contributions made which would require disclosure under Choice A of this section.

Debt Disclosures

**(Choose A or B, if option A is indicated please include the required attachment):**

**Choice A** \_\_\_\_\_ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

**Choice B** X \_\_\_\_\_ There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

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

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

Signature of Affiant

Tony Julian

Printed Name of Affiant

SWORN AND SUBSCRIBED TO BEFORE ME

ON THE 4th DAY OF Sept, 2015.

Notary Public

Diana Bravo.

Printed Name of Notary

#FF028643

Notary/Bar Roll Number

My commission expires June 17, 2017.





## WATERCARB-L/O High Performance Powdered Activated Carbon

---

|             |  |
|-------------|--|
| Description | Watercarb-L/O (WCL/O) is a high performance lignite based powdered activated carbon with the addition of an anti-scaling additive. |
|-------------|--|

---

|              |   |
|--------------|---|
| Applications | WCL/O demonstrates exceptional taste and odor and, TOC removal in the treatment of potable water. WCL/O meets or exceeds AWWA B600 specifications and is certified to ANSI/NSF Standard 61. |
|--------------|---|

---

|                             |  |
|-----------------------------|--|
| Specifications / Properties | Iodine Number_____ 500 mg/g min<br>Moisture _____ 8 % max<br>Bulk Density_____ 0.4 - 0.7 g/cc<br>Passing 325 Mesh _____ 90 % min |
|-----------------------------|--|

---

|              |  |
|--------------|--|
| Manufacturer | Standard Purification is an innovative activated carbon manufacturing company focused on practical, environmentally-superior solutions to customers' needs. We develop and manufacture custom-tailored activated carbon products for removing contaminants from liquids and gases. Standard Purification utilizes reclaimed raw material in many products, and uses only heat and steam for carbon activation. |
|--------------|--|

---

|          |   |
|----------|---|
| Delivery | Watercarb-L/O is available for delivery in 50 lb bags palletized, and in bulk <i>via</i> polypropylene bulk sacks, pneumatic tanker trailer and pneumatic rail car. |
|----------|---|

---

|                     |   |
|---------------------|---|
| Safety and Handling | Wet activated carbon removes oxygen from the air. In closed, or partially closed containers and vessels, oxygen depletion may reach dangerously low levels. Workers should follow appropriate procedures when entering confined spaces containing activated carbon. |
|---------------------|---|

---



# Safety Data Sheet



## 1. Product and Company Identification

Common Name: Powdered activated carbon  
Product name: Watercarb-L, Watercarb-L/O  
Chemical Formula: C (carbon)  
Recommended Use: Approved for use in the treatment of drinking water at water treatment facilities. Max. dosage 250 ppm. Not evaluated for point-of-use applications.  
Manufacturer/Supplier: Standard Purification  
551 N US Hwy 41  
Dunnellon, FL. 34432  
352-465-5959  
Emergency Telephone Number: CHEMTREC – 800-424-9300  
Revision date: 5/27/2015

## 2. Hazards Identification

**Classification:** Non-Hazardous under normal conditions of storage and use in the treatment of potable water at water treatment facilities.

**Hazards not otherwise classified:** Combustible dust. May form combustible dust concentrations in air. All powdered activated carbons are classified as weakly explosive (Dust explosion class St1): Given the necessary conditions of a strong ignition source, right concentrations of airborne carbon dust, adequate oxygen levels, and confinement, the potential for a deflagration event exists. A combustible dust hazard assessment and employee training should be carried out. See sections 7 and 9 for further information on combustible dust precautions.

**Label:** None.

**Precautionary Statements:** Wet activated carbon removes oxygen from air and can lower the concentration of oxygen inside vessels and other confined spaces. Workers should follow procedures for low oxygen.

Workers should also take appropriate precautions when dealing with spent (used) activated carbons which may exhibit hazardous properties associated with the adsorbed materials.

## 3. Composition/Information on Ingredients

| Chemical Name    | CAS Number | Percent of Total Weight |
|------------------|------------|-------------------------|
| Activated Carbon | 7440-44-0  | 100                     |

Watercarb-L/O contains a proprietary scale inhibitor.

Watercarb-L and Watercarb L/O contain trace amounts of crystalline silica.

**For small spills:** Retrieve as much material as possible by pushing gently with soft-bristle brushes and brooms, squeegees or dust mops, or by scooping with buckets or shoveling into containers or back into the original packaging. A final clean-up with a damp cloth or mop should suffice. Do not use compressed air or vigorous sweeping, as this may scatter dust into hidden or difficult-to-clean areas. Inspect hidden areas where dust may have settled.

**During a major spill or release,** a fine mist spray directed high at/on top of the cloud will lessen airborne dust. Airborne black powder will appear to be more material than it is and the majority of the spill will remain or settle quickly at ground-level and on horizontal surfaces. Once started, powder will flow like water. Barriers and berms can contain or direct the spill. Do not attempt to enter the spill to stop it as engulfment can occur. Once the flow stops, retrieve as much material as possible by pushing gently with soft-bristle brushes and brooms, squeegees or dust mops, or by scooping with buckets or shoveling into containers. Ignition-proof vacuums and vacuum trucks can aid in removing large spills. For final cleanup, wet area with a light water spray and squeegee surfaces.

If material collects on vehicles, remove the excess with soft-bristle brushes, then wash off the carbon with water-carbon powder will scratch the paint if wiped off.

Wetting the material with a light mist and slowly saturating it with water can aid in clean-up. Spill containment berms/straw bales which allow water to pass can effectively filter out the insoluble carbon and slow the water flow to allow the carbon to settle where excess water is used. If material enters or is washed down drains, continue to flush with water until clear. Carbon is insoluble and will settle out when the flow stops, potentially clogging pipes or drains, and can be difficult to re-suspend.

**Waste Disposal Method:** Dispose unused carbon as non-hazardous waste in refuse containers in accordance with local, state, and federal regulations.

## 7. Handling and Storage

**Storage:** Store packaged material as received in a dry, well-ventilated facility at ambient temperatures until ready to use. Store away from strong oxidizers, strong acids, ignition sources, combustible materials, and heat. An adequate air gap between packages is recommended to reduce propagation in the case of fire.

Bulk dry storage silos and containers should be designed to avoid strong ignition sources and uncontrolled ingress of air which could cause low velocity air flows in the carbon bed. Air flow can lead to localized heating due to the exothermic reaction of carbon with oxygen. It is recommended that bulk storage silos and dust collectors have relief venting or explosion doors in case of a fire event which could create the conditions necessary for deflagration. Refer to NFPA Standard 68 for guidance.

**Handling:** A hazard assessment should be carried out. As with all finely divided materials, ground all transfer, blending, and dust collecting equipment to prevent static discharge. Remove all strong ignition sources from material handling, transfer, and processing areas where dust may be present or accumulate. Practice good housekeeping. Excessive accumulations of dust or dusty conditions can create the potential of secondary explosions. Inspection of hidden surfaces for dust accumulation should be made routinely. If possible, eliminate the pathways for dust to accumulate in hidden areas. Fine carbon dust may penetrate electrical equipment and cause electrical shorts. Where dusting is unavoidable, dust-proof boxes and regular electrical line maintenance are recommended. Refer to NFPA standards 654 for guidance.

**Caution employees-**no smoking in carbon storage and handling areas. Carbon is difficult to ignite, however, cutting and welding operations should be carried out using hot work permit systems where precautions are taken not to ignite carbon, which may smolder undetected.

**Apparent Density** – 0.5 to 0.65 g/cc, typically 0.6 g/cc  
**Melting point/freezing point** Not applicable  
**Solubility** – insoluble in water. Scale inhibitor, if present, is soluble.  
**Initial boiling point and boiling range** Not applicable  
**Flash point** Not applicable  
**Evaporation rate** Not applicable  
**Flammability** Non-flammable  
**Partition coefficient:** Not applicable  
**Auto-ignition temperature** No information available  
**Decomposition temperature** No information available  
**Viscosity** Not applicable

## 10. Stability and Reactivity

**Stability:** Stable. Not self-heating.

**Reactivity:** May react exothermically with a potential for fire upon contact with strong oxidizers, including low-velocity air flows through carbon beds.

**Incompatibility and Conditions to Avoid:** Strong oxidizers such as ozone, liquid oxygen, chlorine, permanganate, etc. Do not store near combustible materials.

**Hazardous Decomposition or By-product:** Carbon monoxide may be generated in the event of fire.

**Hazardous polymerization** will not occur.

## 11. Toxicological Information

*Information given is based on data obtained for this substance or from similar substances (activated carbons).*

**Likely routes of exposure:** inhalation, ingestion. Skin absorption highly unlikely, no health effects known.

**Effects:** See Section 4-First Aid measures. No known long-term effects. Scale inhibitor, if present, is very mildly toxic if ingested.

### Toxicological Data

Carbon, activated

LC50/inhalation/1 hr/rat = > 8.5 mg/L

LC50/oral/rat = > 2000 mg/kg

**Carcinogenicity:** Activated carbon is not listed as a potential carcinogen by National Toxicology Program, the International Agency for Research on Cancer, OSHA, or ACGIH. May contain trace concentrations of bound silica. Respirable crystalline silica is listed as a potential carcinogen of the lungs by the IARC and NTP. Much of the silica is inextricably bound within the particles of the activated carbon, and so does not present a substantial health hazard. Substantial protection is provided by adherence to the dust control measures recommended.

## 12. Ecological Information

*Information given is based on data obtained for this substance or from similar substances (activated carbons).*

**Aquatic Toxicity:** Non-toxic. No adverse ecological effects are known.