

CITY OF AURORA, ILLINOIS
INVITATION TO BID 16-44

CHEMICALS FOR THE CITY OF AURORA
WATER TREATMENT FACILITY

BID PROPOSAL FORM

Bid Due Date & Time: 2:00 p.m. CST, Wednesday, October 19, 2016

To: **City of Aurora**
City Clerk's Office
44 E Downer Place
Aurora, Illinois 60507

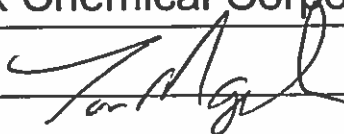
The following offer is hereby made to the City of Aurora, Aurora, Illinois, hereafter called the Owner.

Submitted By: Vertex Chemical Corporation

- I. The undersigned Vendor proposes and agrees, after having examined the specifications, quantities and other Bid documents, to irrevocably offer to furnish the materials, equipment and services in compliance with all terms, conditions, specifications and amendments (if applicable) contained in the bid solicitation documents. The items in this Invitation to Bid, including, but not limited to, all required certificates, are fully incorporated herein as a material and necessary part of the Bid.
 - A. The Vendor shall also include with their bid any necessary literature, samples, etc., as required within the Invitation to Bid, Instruction to Bidders and specifications.
 - B. For purposes of this offer, the terms Offeror, Bidder, Contractor, and Vendor are used interchangeably.
- II. In submitting this Offer, the Vendor acknowledges:
 - A. All bid documents have been examined: Instructions to Bidder, Specifications and the following addenda:

No. 1, No. _____, No. _____, (Vendor to acknowledge addenda here.)
 - B. To be prepared to execute a contract with the City within ten (10) calendar days after approval by Aurora City Council.

Company Name: Vertex Chemical Corporation

Signature & Date:  10/17/16

**CITY OF AURORA
INVITATION TO BID 16-44
CHEMICALS FOR THE CITY OF AURORA
WATER TREATMENT FACILITY**

BID PROPOSAL FORM

Bidders may bid on any or all of the items. **The Agreement term will be for a one-year period with a 2nd year extension option**, subject to mutual administrative consent between the City of Aurora and the Bidder. Year 1 will be the period of January 1, 2017 through December 31, 2017. Year 2 will be the period of January 1, 2018 through December 31, 2018. Bidders shall familiarize themselves with the General Conditions, Special Conditions and the delivery destination.

All bids must be submitted on this bid form. The quantities listed are approximate:

YEAR 1:

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
1. Anhydrous Ammonia	40,000	Lbs.	_____	No bid
2. Liquid Ferric Chloride	1,100,000	Lbs.	_____	No bid
3. Carbon Dioxide	1,400,000	Lbs.	_____	No bid
4. Sodium Hypochlorite	280,000	Gals.	<u>\$0.55</u>	<u>\$154,000.00</u>
5. Calcium Oxide	5,400	Tons	_____	No bid

YEAR 2:

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
1. Anhydrous Ammonia	40,000	Lbs.	_____	No bid
2. Liquid Ferric Chloride	1,100,000	Lbs.	_____	No bid
3. Carbon Dioxide	1,400,000	Lbs.	_____	No bid
4. Sodium Hypochlorite	280,000	Gals.	<u>\$0.56</u>	<u>\$156,800.00</u>
5. Calcium Oxide	5,400	Tons	_____	No bid

Your Company's Name Vertex Chemical Corporation

CITY OF AURORA
16-44
CHEMICALS FOR THE CITY OF AURORA
WATER TREATMENT PLANT
BID PROPOSAL FORM

The Bidder shall furnish the chemicals, F.O.B. Aurora Water Treatment Plant, 1111 Aurora Avenue, Aurora, Illinois with freight allowed to destination.

The undersigned Bidder proposes to furnish all labor, materials, equipment and services to satisfactorily perform the above referenced contract.

If there is a discrepancy between the unit price and the total, the unit price will prevail. Designate below the telephone number and contact person who is to be notified for shipment request:

Telephone # 800-222-1915

Contact Person Customer Service - customerservice@vertexchem.com

The bid price for material shall include shipping and shall remain firm for the duration of this contract year unless otherwise stated below. The City of Aurora reserves the right to limit quantities to meet the needs of the City.

No additional charges over total net bid price will be accepted without written approval of the Purchasing Director.

All bid prices shall be shown as delivered Aurora Destination, Prepaid and Allowed.

Do not add state, federal or local taxes. Municipalities are exempt. Exemption Certification Permit No. Illinois E9996-0842-07.

The City of Aurora reserves the right to reject any or all Bids, or parts thereof, and to waive any technicality, informality or irregularity in the Bids received, and to disregard all nonconforming or conditional Bids or counter-proposals and to hold the best Bids for ninety (90) days from the opening date set forth above. The City further reserves the right to award the Bid to the lowest responsible Bidder whose offer best responds in quality, fitness and capacity to the requirements of the proposed work or usage and therefore is in the best interest of the City.

BID SUBMITTED BY:

COMPANY Vertex Chemical Corporation

ADDRESS 11685 Manchester Road

CITY, STATE, ZIP St. Louis, MO 63131

PREPARER'S NAME Tracy Lewis

Please Type

CONTRACT PERSON Tom Magrecki

Please Type

AUTHORIZED SIGNATURE 

Vice President, Finance

PHONE # (800) 222-1915 FAX # (612) 225-6720

Title
DATE October 17, 2016

EMAIL: tracy.lewis@vertexchem.com

BIDDER'S CERTIFICATION

I/We hereby certify that:

- A. A complete set of bid papers, as intended, has been received, and that I/We will abide by the contents and/or information received and/or contained herein.
- B. I/We have not entered into any collusion or other unethical practices with any person, firm, or employee of the City which would in any way be construed as unethical business practice.
- C. I/We have adopted a written sexual harassment policy which is in accordance with the requirements of Federal, State and local laws, regulations and policies and further certify that I/We are also in compliance with all other equal employment requirements contained in Public Act 87-1257 (effective July 1, 1993) 775 ILCS 5/2-105 (A).
- D. I/We operate a drug free environment and drugs are not allowed in the workplace or satellite locations as well as City of Aurora sites in accordance with the Drug Free Workplace Act of January, 1992.
- E. The Bidder is not barred from bidding on the Project, or entering into this contract as a result of a violation of either Section 33E-3 or 33E-4 of the Illinois Criminal Code, or any similar offense of "bid rigging" or "bid rotating" of any state or the United States.
- F. I/We will abide by all other Federal, State and local codes, rules, regulations, ordinances and statutes.

COMPANY NAME Vertex Chemical Corporation

ADDRESS 11685 Manchester Road

CITY/STATE/ZIP CODE St. Louis, MO 63131

NAME OF CORPORATE/COMPANY OFFICIAL Tom Magrecki

PLEASE TYPE OR PRINT CLEARLY

TITLE Vice President, Finance

AUTHORIZED OFFICIAL SIGNATURE 

DATE October 17, 2016

TELEPHONE (314) 471-0500

FAX No. (314) 471-0475

Subscribed and Sworn to
Before me this 17th day
of October, 2016


Notary Public



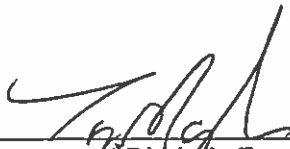
STATE OF ILLINOIS)
)
County of Kane) ss.

BIDDER'S TAX CERTIFICATION


(BIDDER'S EXECUTING OFFICER), being first duly sworn on oath, deposes and states that all statements made herein are made on behalf of the BIDDER, that this despondent is authorized to make them and that the statements contained herein are true and correct.

Bidder deposes, states and certifies that Bidder is not barred from contracting with any unit of local government in the State of Illinois as result of a delinquency in payment of any tax administered by the Illinois Department of Revenue unless Bidder is contesting, in accordance with the procedures established by the appropriate statute, its liability for the tax or the amount of the tax, all as provided for in accordance with 65 ILCS 5/11-42.1-1.

DATED this 17th day of October, 2016.

By 
(Signature of Bidder's Executing Officer)
Tom Magrecki
(Print name of Bidder's Executing Officer)
Vice President, Finance
(Title)

ATTEST/WITNESS:

By 
Title A/P Specialist

Subscribed and sworn to before me this
17th day of October, 2016.


Notary Public



CITY OF AURORA, ILLINOIS
INVITATION TO BID 16-44

**CHEMICALS FOR THE CITY OF AURORA
WATER TREATMENT PLANT**

CONTACT INFORMATION

Vendor shall provide the following contact information assigned to service the City of Aurora account.

Customer Service/General Information: Ph: 800-222-1915

To place an order:

Name: Customer Service
Ph: 800-222-1915 Fax: 612-225-6720
E-mail: customerservice@vertexchem.com

Billing & Invoicing question:

Name: Tracy Lewis
Ph: 314-471-0504 Fax: 314-471-0475
E-mail: tracy.lewis@vertexchem.com

Questions:

Name: Tracy Lewis
Ph: 314-471-0504 Fax: 314-471-0475
E-mail: tracy.lewis@vertexchem.com

Bidder's Name: Vertex Chemical Corporation

Signature & Date:  10/17/16



11685 MANCHESTER ROAD • ST. LOUIS, MO 63131 • 314-471-0500 • FAX 314-471-0475 • vertexchemical@vertexchem.com

REFERENCES

Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103
Phone: 314-768-6200

Des Moines Water Works
2201 George Flagg Parkway
Des Moines, IA 50321
Phone: 515-283-8724

Granite City Wastewater Treatment
2000 Edison Avenue
Granite City, IL 62040
Phone: 618-452-6229

Regional Water Resource Agency
1722 Pleasant Valley Road
Owensboro, KY 42303
Phone: 270-687-8440

CITY OF AURORA, ILLINOIS
INVITATION TO BID 16-44

**CHEMICALS FOR THE CITY OF AURORA
WATER TREATMENT PLANT**

BID SUBMITTAL CHECKLIST

Each Bid Must Be Placed In An Envelope, Sealed, And Clearly Marked On The Outside: "16-44 CHEMICALS FOR THE CITY OF AURORA WATER TREATMENT PLANT." In order to be considered responsive, the bidder must submit all of the following items in their sealed envelope:

1. Bidder's Certifications (Page 01)
2. Bidder's Tax Certification (Page 02)
3. Bid Proposal Form (Appendix E)
4. Contact Information (Appendix C)
5. Reference List (Appendix D)
6. Contract (Appendix G)
7. Vendor Application (Appendix H) *no changes*

APPENDIX G

CONTRACT

**CITY OF AURORA AGREEMENT FOR
CHEMICALS FOR THE CITY OF AURORA WATER TREATMENT PLANT
INVITATION TO BID 16-44**

THIS AGREEMENT, entered on this 17th day of October, 2016 ("Effective Date"), for the Chemicals for the City of Aurora Water Treatment Plant ("Services") is entered into between the **CITY OF AURORA** ("City"), a municipal corporation, located at 44 E. Downer Place, Aurora, Illinois and ("Bidder"), located at 11685 Manchester Road, St. Louis, MO 63131.

WHEREAS, the City issued an Invitation to Bid ("Bid") on September 28, 2016 for the Chemicals for the City of Aurora Water Treatment Plant located at 1111 Aurora Avenue, Aurora, IL; and

WHEREAS, the Bidder submitted a Bid Proposal in response to the Bid and represents that it is ready, willing and able to perform the Services specified in the Bid and herein as well as any additional services agreed to and described in the Agreement; and

WHEREAS, on _____, the City awarded a contract to Bidder.

IN CONSIDERATION of the mutual promises and covenants herein contained, the parties hereto do mutually agree to the following:

1. **Agreement Documents.** The Agreement shall be deemed to include this document, Bidder's response to the Bid, to the extent it is consistent with the terms of the Bid, any other documents as agreed upon by the parties throughout the term of this Agreement, along with any exhibits, all of which are incorporated herein and made a part of this Agreement. In the event of a conflict between this Agreement and any exhibit, the provisions of this Agreement shall control.

Invitation to Bid 16-44

In connection with the Bid and this Agreement, Bidder acknowledges that it has furnished and will continue to furnish various certifications, affidavits and other information and reports, which are incorporated herein. Bidder represents that such material and information furnished in connection with the Bid and this Agreement is truthful and correct. Bidder shall promptly update such material and information to be complete and accurate, as needed, to reflect changes or events occurring after the Effective Date of this Agreement.

2. **Scope of Services.** Bidder shall perform the Services listed in the Instructions to Bidders and Special Conditions, attached hereto as Exhibit 1.

3. **Term.** Year 1 of the contract period will be from January 1, 2017 through December 31, 2017. Year 2 of the contract period will be from January 1, 2018 through December 31, 2018.

4. **Compensation.**

a. **Maximum Price.** In accordance with the Bidder's Bid, the maximum price for providing the Services shall be:

<u>Item</u>	<u>Unit Price</u>	<u>Contract Period</u>
<u>Sodium Hypochlorite</u>	<u>\$0.55/gallon</u>	January 1 through December 31, 2017
<u>Sodium Hypochlorite</u>	<u>\$0.56/gallon</u>	January 1 through December 31, 2018

Price shall remain firm for the entire contract period.

b. **Schedule of Payment.** The City shall pay the Bidder for the Services in accordance with the amounts set forth in Exhibit 2. The Bidder shall be required to submit an itemized invoice as well as any supporting documentation as required by the City. Payment shall be made upon the basis of the approved invoices and supporting documents. The City shall utilize its best efforts to make payment within forty-five (45) days after approval of the invoice. Each invoice shall be accompanied by a statement of the Bidder of the percentage of completion of the Services through the date of the invoice.

5. **Performance of Services.**

Standard of Performance. Bidder shall perform all Services set forth in this Agreement, and any other agreed documents incorporated herein, with the degree, skill, care and diligence customarily required of a professional performing services of comparable scope, purpose and magnitude and in conformance with the applicable professional standards. Bidder shall, at all times, use its best efforts to assure timely and satisfactory rendering and completion of the Services. Bidder shall ensure that Bidder and all of its employees or subcontractors performing Services under this Agreement shall be: (i) qualified and competent in the applicable discipline or industry; (ii) appropriate licensed as required by law; (iii) strictly comply with all City of Aurora, State of Illinois, and applicable federal laws or regulations; (iv) strictly conform to the terms of this Agreement. Bidder shall, at all times until the completion of the Services, remain solely responsible for the professional and technical accuracy of all Services and deliverables furnished, whether such services are rendered by the Bidder or others on its behalf, including, without limitation, its subcontractors. No review, approval, acceptance, nor payment for any and all of the Services by the City shall relieve the Bidder from the responsibilities set forth herein.

6. **Termination.**

Termination for Convenience. The City has the right to terminate this Agreement, in whole or in part, for any reason or if sufficient funds have not been appropriated to cover the estimated requirement of the Services not yet performed, by providing Bidder with thirty (30) days notice specifying the termination date. On the date specified, this Agreement will end. If this Agreement is terminated by the City, as provided herein, the City shall pay the Bidder only for services performed up to the date of termination. After the termination date, Bidder has no further contractual claim against the City based upon this Agreement and any payment so made to the Bidder upon termination shall be in full satisfaction for Services rendered. Bidder shall deliver to the City all finished and unfinished documents, studies and reports and shall become the property of the City.

7. **Miscellaneous Provisions.**

a. **Illinois Freedom of Information Act.** The Bidder acknowledges the requirements of the Illinois Freedom of Information Act (FOIA) and agrees to comply with all requests made by the City of Aurora for public records (as that term is defined by Section 2(c) of FOIA in the undersigned's possession and to provide the requested public records to the City of Aurora within two (2) business days of the request being made by the City of Aurora. The undersigned agrees to indemnify and hold harmless the City of Aurora from all claims, costs, penalty, losses and injuries (including but not limited to, attorney's fees, other professional fees, court costs and/or arbitration or other dispute resolution costs) arising out of or relating to its failure to provide the public records to the City of Aurora under this agreement.

b. **Entire Agreement.** This Agreement, along with the documents set forth in Section 1 and incorporated by reference elsewhere in this Agreement, with consent of the parties, represents the entire agreement between the parties with respect to the performance of the Services. No other contracts, representations, warranties or statements, written or verbal, are binding on the parties. This Agreement may only be amended as provided herein.

c. **Consents and Approvals.** The parties represent and warrant to each other that each has obtained all the requisite consents and approvals, whether required by internal operating procedures or otherwise, for entering into this Agreement and the undertakings contemplated herein.

d. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be an original, but all of which shall constitute one and the same instrument.

FOR CITY OF AURORA

By: _____

ATTEST:

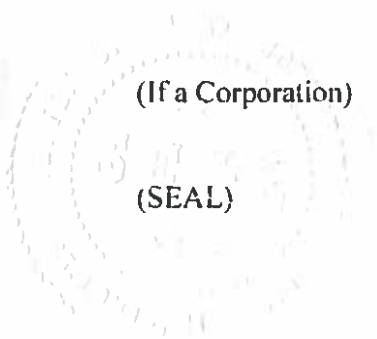
City Clerk

FOR _____

By _____

(SEAL)

(CORPORATE SEAL)



(If a Corporation)

CORPORATE NAME Vertex Chemical Corporation

(SEAL)

By

[Handwritten Signature]

President - Contractor

ATTEST:

[Handwritten Signature: Tracy Lewis]

Secretary

(If a Co-Partnership)

[Handwritten Signature]
Partners doing Business under the firm
Contractor

(If an Individual)

[Handwritten Signature] (SEAL)
Contractor (SEAL)

**CITY OF AURORA
CHEMICALS FOR THE CITY OF AURORA WATER TREATMENT PLANT
INVITATION TO BID 16-44**

EXHIBIT I

(INVITATION TO BID)

**CITY OF AURORA
CHEMICALS FOR THE CITY OF AURORA WATER TREATMENT PLANT
INVITATION TO BID 16-44**

EXHIBIT 2

(BID PROPOSAL FORM 16-44)



October 15, 2014

City of Aurora
City Clerk's Office
City Hall Building
44 East Downer Place, 2nd Floor
Aurora, IL 60507-2067

Dear Sir or Madam:

Enclosed please find Vertex's proposal for your Sodium Hypochlorite needs.

Thank you for this opportunity to quote on your chemical requirements.

Very truly yours,

VERTEX CHEMICAL CORPORATION

Tracy Lewis
Bid Coordinator

Enclosure



**QUOTATION FOR CITY OF AURORA, ILLINOIS
CHEMICALS FOR THE CITY WATER TREATMENT PLANT**

ITEM: VERTEX CSS-12®, Sodium Hypochlorite Solution;

CONTRACT PERIOD: January 1, 2017 – December 31, 2018;

ESTIMATED VOLUME: 280,000 gallons annually;

MINIMUM QUANTITY: 4,500 gallons per delivery;

UNIT PRICE: 2017 - \$0.55 per gallon, delivered;
2018 - \$0.56 per gallon, delivered;

PRICE PROTECTION: Firm for contract period;

DEMURRAGE: One and one half (1½) hours free unloading; over one and one half (1½) hours billed at \$70.00/hour in quarter hour increments;

HOLIDAYS/SUNDAYS: N/A;

TAXES: Exempt;

TERMS: Net 45 days from the date of invoice;

LEAD TIME: Three days preferred; sooner in emergencies;

SHIPPING MODE: Vertex tankers;

SSHE PROVISIONS: MSDS and Specification Sheets enclosed. Additional safety, security, health and environmental instructions are available without charge upon request. Please contact your Account Manager for details regarding on-site training by Vertex technical personnel;

VALIDITY PERIOD: This quote is valid for 90 days; thereafter, please contact Vertex for an updated quote.

October 17, 2016



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
9/26/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Marsh & McLennan Agency LLC 7225 Northland Dr N #300 Minneapolis MN 55428	CONTACT NAME: Michelle Hanson PHONE (A/C, No., Ext): 763-746-8239 FAX (A/C, No.): E-MAIL ADDRESS: michelle.hanson@marshmma.com <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 80%;">INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A : Steadfast Insurance Com</td> <td>26387</td> </tr> <tr> <td>INSURER B : Great Divide Insurance Company</td> <td>25224</td> </tr> <tr> <td>INSURER C : Nautilus</td> <td>17370</td> </tr> <tr> <td>INSURER D : Aspen Speciality</td> <td>10717</td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Steadfast Insurance Com	26387	INSURER B : Great Divide Insurance Company	25224	INSURER C : Nautilus	17370	INSURER D : Aspen Speciality	10717	INSURER E :		INSURER F :	
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INSURER E :															
INSURER F :															
INSURED HAWKIINC Hawkins, Inc. Vertex Chemical Corporation 2381 Rosegate Roseville MN 55113															

COVERAGES **CERTIFICATE NUMBER:** 758369152 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (M/M/D/YYYY)	POLICY EXP (M/M/D/YYYY)	LIMITS														
C	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Products Poll GEN'L AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:			GLP201280212	9/30/2016	9/30/2017	<table style="width: 100%; border-collapse: collapse;"> <tr> <td>EACH OCCURRENCE</td> <td style="text-align: right;">\$1,000,000</td> </tr> <tr> <td>DAMAGE TO RENTED PREMISES (Ea occurrence)</td> <td style="text-align: right;">\$1,000,000</td> </tr> <tr> <td>MED EXP (Any one person)</td> <td style="text-align: right;">\$25,000</td> </tr> <tr> <td>PERSONAL & ADV INJURY</td> <td style="text-align: right;">\$1,000,000</td> </tr> <tr> <td>GENERAL AGGREGATE</td> <td style="text-align: right;">\$2,000,000</td> </tr> <tr> <td>PRODUCTS - COMP/OP AGG</td> <td style="text-align: right;">\$2,000,000</td> </tr> <tr> <td></td> <td style="text-align: right;">\$</td> </tr> </table>	EACH OCCURRENCE	\$1,000,000	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000	MED EXP (Any one person)	\$25,000	PERSONAL & ADV INJURY	\$1,000,000	GENERAL AGGREGATE	\$2,000,000	PRODUCTS - COMP/OP AGG	\$2,000,000		\$
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	AGGREGATE	\$10,000,000																			
	\$																				
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY <input type="checkbox"/> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	WCA201280112	9/30/2016	9/30/2017	<table style="width: 100%; border-collapse: collapse;"> <tr> <td><input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER</td> <td></td> </tr> <tr> <td>E.L. EACH ACCIDENT</td> <td style="text-align: right;">\$1,000,000</td> </tr> <tr> <td>E.L. DISEASE - EA EMPLOYEE</td> <td style="text-align: right;">\$1,000,000</td> </tr> <tr> <td>E.L. DISEASE - POLICY LIMIT</td> <td style="text-align: right;">\$1,000,000</td> </tr> </table>	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER		E.L. EACH ACCIDENT	\$1,000,000	E.L. DISEASE - EA EMPLOYEE	\$1,000,000	E.L. DISEASE - POLICY LIMIT	\$1,000,000						
	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER																				
	E.L. EACH ACCIDENT	\$1,000,000																			
E.L. DISEASE - EA EMPLOYEE	\$1,000,000																				
E.L. DISEASE - POLICY LIMIT	\$1,000,000																				
C D	<input type="checkbox"/> Pollution Liability			SSP201587910 EXAFVXW15	9/30/2015 9/30/2015	9/30/2018 9/30/2018	<table style="width: 100%; border-collapse: collapse;"> <tr> <td>Total Limit</td> <td style="text-align: right;">25,000,000 Occ 25,000,000 Agg</td> </tr> </table>	Total Limit	25,000,000 Occ 25,000,000 Agg												
	Total Limit	25,000,000 Occ 25,000,000 Agg																			

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

This insurance is issued pursuant to the Minnesota surplus lines insurance act. The insurer is an eligible surplus lines insurer but is not otherwise licensed by the State of Minnesota. In case of insolvency, payment of claims is not guaranteed. Companies A, C, and D are subject to statutes and regulations of surplus lines carriers.

CERTIFICATE HOLDER For Informational Purposes Only ...	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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A Hawkins, Inc. Company

11685 MANCHESTER ROAD • ST. LOUIS, MO 63131 • 314-471-0500 • FAX 314-471-0475 • vertexchemical@vertexchem.com

VERTEX CSS-12[®] SODIUM HYPOCHLORITE PRODUCT SPECIFICATION SHEET

Description: Clear, yellow liquid with a pungent, chlorine bleach odor.

LABEL SPECIFICATIONS (EPA REG. NO. 9616-7)

Sodium Hypochlorite % by weight	12.5%
	<u>Minimum</u>
Available Chlorine % by volume	15.2%
Available Chlorine % by weight	12.6%
	<u>Typical</u>
Excess Caustic	5 grams/liter
Specific Gravity @ 20°C	1.206
Freeze Point	-8°F
Viscosity @ 77°F	1.81 centistokes
Vapor Pressure in mm Hg @100°F	56
Specific Heat, Cal/g. °C	0.875
pH	12.4
<u>Metals</u>	<u>Maximum (ppm)</u>
Cadmium	0.03
Calcium	10.00
Chromium	0.20
Cobalt	0.03
Copper	0.03
Iron	1.00
Magnesium	1.00
Manganese	0.10
Nickel	0.10
Zinc	0.60



THIS PRODUCT SHOULD BE USED WITHIN THIRTY DAYS OF RECEIPT.



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Monday, October 17, 2016** at 12:15 a.m. Eastern Time. Please contact NSF International 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=49050&Standard=060&>

NSF/ANSI 60 Drinking Water Treatment Chemicals - Health Effects

Vertex Chemical Corporation

11685 Manchester Road

St. Louis, MO 63131

United States

314-471-0500

Facility : Dupo, IL

Fluorosilicic Acid

Trade Designation

Fluosilicic Acid 23% - 25%

Hydrofluosilicic Acid

Hydrofluosilicic Acid 23%

Product Function

Fluoridation

Fluoridation

Fluoridation

Max Use

6mg/L

6mg/L

6mg/L

Sodium Hydroxide

Trade Designation

Caustic Soda, Liquid

Sodium Hydroxide Solution

Product Function

Corrosion & Scale Control

pH Adjustment

Corrosion & Scale Control

pH Adjustment

Max Use

100 mg/L

200 mg/L

Sodium Hypochlorite[CL]

Trade Designation

Azone

Azone 10

Azone 15

Vertex CSS-10 10%

Vertex CSS-12 12.5%

Vertex CSS-16 16.4%

Vertex CSS-5 5%

Product Function

Disinfection & Oxidation

Disinfection & Oxidation

Disinfection & Oxidation

Disinfection & Oxidation

Disinfection & Oxidation

Disinfection & Oxidation

Disinfection & Oxidation

Max Use

50mg/L

50mg/L

40mg/L

50 mg/L

40 mg/L

30mg/L

100 mg/L

Vertex CSS-6 6%	Disinfection & Oxidation	83 mg/L
Vertex Concentrate 10%	Disinfection & Oxidation	50 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Facility : Camanche, IA

Sodium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda, Liquid	Corrosion & Scale Control pH Adjustment	100 mg/L
Sodium Hydroxide Solution	Corrosion & Scale Control pH Adjustment	200 mg/L

Sodium Hypochlorite[CL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Azone	Disinfection & Oxidation	50mg/L
Azone 10	Disinfection & Oxidation	50mg/L
Azone 15	Disinfection & Oxidation	40mg/L
Vertex CSS-10 10%	Disinfection & Oxidation	50 mg/L
Vertex CSS-12 12.5%	Disinfection & Oxidation	40 mg/L
Vertex CSS-16 16.4%	Disinfection & Oxidation	30mg/L
Vertex CSS-5 5%	Disinfection & Oxidation	100 mg/L
Vertex CSS-6 6%	Disinfection & Oxidation	83 mg/L
Vertex Concentrate 10%	Disinfection & Oxidation	50 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Sulfuric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 66'	Corrosion & Scale Control pH Adjustment	50mg/L

Facility : Memphis, TN

Sodium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda, Liquid	Corrosion & Scale Control pH Adjustment	100 mg/L
Sodium Hydroxide Solution		200 mg/L

Corrosion & Scale Control
pH Adjustment

Sodium Hypochlorite[CL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Azone	Disinfection & Oxidation	50mg/L
Azone 10	Disinfection & Oxidation	50mg/L
Azone 15	Disinfection & Oxidation	40mg/L
Vertex CSS-10 10%	Disinfection & Oxidation	50 mg/L
Vertex CSS-12 12.5%	Disinfection & Oxidation	40 mg/L
Vertex CSS-16 16.4%	Disinfection & Oxidation	30mg/L
Vertex CSS-5 5%	Disinfection & Oxidation	100 mg/L
Vertex CSS-6 6%	Disinfection & Oxidation	83 mg/L
Vertex Concentrate 10%	Disinfection & Oxidation	50 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Number of matching Manufacturers is 1

Number of matching Products is 37

Processing time was 1 seconds



SAFETY DATA SHEET

Version 1

1. Identification of the Substance / Preparation and of the Company / Undertaking

Product Name: VERTEX CSS-12® 9616-7
UN/ID No UN1791
Synonyms: VERTEX CSS-12® 9616-7, Liquid Bleach, Soda Bleach
Formula: NaOCl
Molecular Weight: 74.45

Company Name:
 Vertex Chemical Corporation, 11685 Manchester Road, St. Louis, Missouri 63131. (314) 471-0500

Emergency Telephone:
 NATIONAL EMERGENCY RESPONSE CENTER:
 1-800-424-8802
 VERTEX CHEMICAL CORPORATION 314-471-0500
 CHEMTREC (US): 1-800-424-9300

Email:
vertexchem@vertexchem.com
www.vertexchemical.com

Call CHEMTREC only in the event of chemical emergencies involving a SPILL, LEAK, FIRE, EXPOSURE, or ACCIDENT involving chemicals.

2. Hazards Identification

GHS - Classification

Skin corrosion/irritation	Category 1 Category 1B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1



Signal Word: Danger

Hazard Statements:

- Causes severe skin burns and eye damage
- May cause damage to organs
- Very toxic to aquatic life with long lasting effects

Physical Hazards

Corrosive to metals	Category 1
Oxidizing liquids	Category 2

- May be corrosive to metals

• May intensify fire; oxidizer



Precautionary Statements:

- P312 - Call a POISON CENTER or doctor if you feel unwell
- P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
- P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P363 - Wash contaminated clothing before reuse
- P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P310 - Immediately call a POISON CENTER or doctor/physician
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P264 - Wash face, hands and any exposed skin thoroughly after handling
- P270 - Do not eat, drink or smoke when using this product
- P309 + P311 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician
- P405 - Store locked up
- P501 - Dispose of contents/container to industrial incineration plant
- P273 - Avoid release to the environment
- P501 - Dispose of contents/ container to an approved waste disposal plant
- P334 - Immerse in cool water/wrap in wet bandages
- P390 - Absorb spillage to prevent material damage
- P406 - Store in corrosive resistant aluminum container with a resistant inliner
- P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- P220 - Keep/Store away from clothing/ combustible materials
- P221 - Take any precaution to avoid mixing with combustibles
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
- P501 - Dispose of contents/container to industrial incineration plant

3. Composition / Information on Ingredients

Hazardous

Chemical Name	CAS No	Weight-%	EC No
Sodium Hydroxide	1310-73-2	1	215-185-5
Sodium chloride	7647-14-5	10	231-598-3
Sodium hypochlorite	7681-52-9	15	231-668-3

Non-Hazardous

Chemical Name	CAS No	Weight-%	EC No
Water	7732-18-5	Balance	231-791-2

4. First Aid Measures

- General Advice:** Immediate medical attention is required.
- Eye Contact:** Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
- Skin Contact:** Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
- Inhalation:** Move to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

- Ingestion:** Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. 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 Physicians:** 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 of the First Aider:** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

5. Fire-fighting Measures

Flammable Properties:

Not flammable; Highly exothermic reactions with organic materials and oxidizable materials may cause fires in adjacent, heat sensitive materials

Explosive Properties:

Containers of this material can explode as oxygen is liberated under high heat or fire conditions. Reacts to form explosive products with amines, ammonia or ammonium salts, methanol, aziridine. Explosive reaction with formic acid (@ 55°C), phenyl acetonitrile, ethylene amine

Suitable Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment; Water spray may be used to keep fire exposed containers cool

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:

In the event of a fire, wear full protective clothing and MSHA/NIOSH (approved or equivalent) self-contained breathing apparatus with full facepiece operated in the pressure-demand or other positive pressure mode

6. Accidental Release Measures

- Personal Precautions:** Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.
- Environmental Precautions:** Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
- Methods for Cleaning Up:** Soak up with inert absorbent material. Clean contaminated surface thoroughly. Dike far ahead of liquid spill for later disposal. Take up mechanically, placing in appropriate containers for disposal. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.
- Other Information:** Not applicable.

7. Handling and Storage

Advice on Safe Handling: Use personal protective equipment as required. Use only with adequate ventilation. Avoid contact with skin, eyes or clothing. 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: Strong acids and bases; Oxidizing agents; Ether, ammonia compounds, hydrogen peroxide, all acids, alum, reducing agents, human or animal waste, oxidizable or combustible materials such as wood, cloth or organic materials, organic chemicals such as solvents and solvent based cleaning compounds, fuels and fuel oils, amines, methanol, propane, organic polymers, ethylene glycol, insecticides, heavy metals such as iron, copper, magnesium, aluminum, tin, steel, stainless steel, carbon steel, manganese, zinc, chromium, nickel, cobalt and their alloys, sodium sulfite, sodium bisulfite, sodium hydrosulfite, sodium thiosulfate. Do not mix this product with any of the foregoing or hazardous gases can result.

8. Exposure Controls / Personal Protection

Exposure Guidelines

Chemical Name		ACGIH TLV		OSHA PEL		Ontario TWA	
Sodium Hydroxide		Ceiling: 2 mg/m ³		2 mg/m ³ Ceiling 2 mg/m ³ TWA		CEV: 2 mg/m ³	
Chemical Name	European Union	China	Japan	Korea	Australia	Taiwan	
Sodium Hydroxide		Ceiling: 2 mg/m ³ Ceiling	Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³	2 mg/m ³ Peak	TWA: 2 mg/m ³	

Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Engineering Controls: Ensure adequate ventilation, especially in confined areas

Personal protective equipment (PPE)

Eye/Face Protection: Tight sealing safety goggles. Face protection shield.
Body Protection: Gloves made of plastic or rubber. Rubber boots. Suitable protective clothing. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate.

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

9.1. Information on basic physical and chemical properties

Physical State:	Liquid	Odor:	Pungent, Chlorine Bleach Odor
Appearance:	Aqueous solution	Odor Threshold:	No information available
Color:	Clear Yellow		
Property	Values	Remarks • Method	
pH:	13.05		
"Salt Out" Point (°F):		No information available	
Melting Point/Freezing Point:	-24 °C / -12 °F		
Boiling Point/Boiling Range:	107 °C / 225 °F		
Flash Point:		No information available	
Evaporation Rate (BuAc=1):		No information available	
Flammability (solid, gas):		No information available	

Flammability Limits in Air:		No information available
Upper Flammability Limit:		
Lower Flammability Limit:		
Vapor Pressure (mm Hg) :	70.2 @ 55 °C	
Vapor density (Air =1)		No information available
Specific Gravity (H₂O=1):	1.21	
Specific Gravity (2nd value):		
Water Solubility:	100% soluble in water	
Solubility(ies):		No information available
Partition Coefficient (n-octanol/water)		No information available
Autoignition Temperature:		
Decomposition Temperature:		No information available
Kinematic Viscosity:	1.83 Centistokes	@ 77 °F
Dynamic Viscosity:		No information available
Oxidizing Properties:	No information available	
Explosive Properties:	Containers of this material can explode as oxygen is liberated under high heat or fire conditions. Reacts to form explosive products with amines, ammonia or ammonium salts, methanol, aziridine. Explosive reaction with formic acid (@ 55°C), phenyl acetonitrile, ethylene amine	

9.2. Other information

Softening Point:	No information available
Molecular Weight:	74.45
VOC Content(%):	No information available
Density:	No information available
Bulk Density:	No information available

10. Stability and Reactivity

Stability:	Stable under normal conditions of use and storage; Stability decreases with increased concentration, heat, light exposure, decrease in pH and contamination with heavy metals such as nickel, cobalt, copper and iron
Conditions to Avoid:	Exposure to air or moisture over prolonged periods; Excessive heat, exposure to light, reduced alkalinity, and contamination of any kind. Reduced alkalinity or contamination can result in evolution of chlorine (toxic) gas. Decrease in pH such as by mixing with other than water, and contamination with items mentioned below as incompatible can result in evolution of chlorine (toxic) gas
Incompatible Materials:	Strong acids and bases; Oxidizing agents; Ether, ammonia compounds, hydrogen peroxide, all acids, alum, reducing agents, human or animal waste, oxidizable or combustible materials such as wood, cloth or organic materials, organic chemicals such as solvents and solvent based cleaning compounds, fuels and fuel oils, amines, methanol, propane, organic polymers, ethylene glycol, insecticides, heavy metals such as iron, copper, magnesium, aluminum, tin, steel, stainless steel, carbon steel, manganese, zinc, chromium, nickel, cobalt and their alloys, sodium sulfite, sodium bisulfite, sodium hydrosulfite, sodium thiosulfate. Do not mix this product with any of the foregoing or hazardous gases can result.
Hazardous Decomposition Products:	Thermal decomposition can lead to release of irritating and toxic gases and vapors
Possibility of Hazardous Reactions:	None under normal processing

11. Toxicological Information**Product Information**

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

Chemical Name	Oral LD ₅₀ :	Dermal LD ₅₀ :	LC ₅₀ (Lethal Concentration):
Sodium Hydroxide		1350 mg/kg (Rabbit)	
Sodium chloride	3 g/kg (Rat)	10 g/kg (Rabbit)	42 g/m ³ (Rat) 1 h
Sodium hypochlorite	8200 mg/kg (Rat)	10000 mg/kg (Rabbit)	
Water	90 mL/kg (Rat)		

Chronic Toxicity:

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen. This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B)

Chemical Name	IARC
Sodium hypochlorite	Group 3

IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen

Target Organ Effects: Eyes, Respiratory system, Skin

12. Ecological Information

Ecotoxicity

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

Very toxic to aquatic life with long lasting effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Sodium Hydroxide		45.4: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	
Sodium chloride		5560 - 6080: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 6020 - 7070: 96 h <i>Pimephales promelas</i> mg/L LC50 static 12946: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 7050: 96 h <i>Pimephales promelas</i> mg/L LC50 semi-static 6420 - 6700: 96 h <i>Pimephales promelas</i> mg/L LC50 static 4747 - 7824: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through	1000: 48 h <i>Daphnia magna</i> mg/L EC50 340.7 - 469.2: 48 h <i>Daphnia magna</i> mg/L EC50 Static

Sodium hypochlorite	0.095: 24 h <i>Skeletonema costatum</i> mg/L EC50	0.06 - 0.11: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 4.5 - 7.6: 96 h <i>Pimephales promelas</i> mg/L LC50 static 0.4 - 0.8: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 0.28 - 1: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 0.05 - 0.771: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 0.03 - 0.19: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static 0.18 - 0.22: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	2.1: 96 h <i>Daphnia magna</i> mg/L EC50 0.033 - 0.044: 48 h <i>Daphnia magna</i> mg/L EC50 Static
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Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Mobility: No information available.

13. Disposal Considerations

Waste from Residues/Unused Products: Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated Packaging: Do not reuse container.

14. Transport Information

DOT

Proper shipping name	HYPOCHLORITE SOLUTIONS (SODIUM HYPOCHLORITE)
Hazard Class	8
UN/ID No	UN1791
Packing Group	PG III
Reportable Quantity (RQ)	RQ
Description	UN1791, HYPOCHLORITE SOLUTIONS (SODIUM HYPOCHLORITE), 8, PG III



15. Regulatory Information

International Inventories
 All of the components in the product are on the following inventory lists: TSCA (United States);, Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), South Korea (KECL);, China (IECSC), Philippines (PICCS),
 This product contains a substance not listed on international inventories - it is for research and development use only.

AICS	Complies
TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies

ENCS -
 IECSC Complies
 KECL Complies
 PICCS Complies

Chemical Name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
Sodium Hydroxide	Listed	Listed	Listed	-	Listed	-	(2)-1972 (1)-410	Listed	KE-31487	Listed
Sodium chloride	Listed	Listed	Listed	-	Listed	-	(1)-236	Listed	KE-31387	Present
Sodium hypochlorite	Listed	Listed	Listed	-	Listed	-	(1)-237	Listed	KE-31506	Present
Water	Listed	Listed	Listed	-	Listed	-	-	Listed	KE-35400	Present

Inventory Legend

AICS - Australian Inventory of Chemical Substances
 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

RESTRICTIONS - REACH TITLE VII No information available

US Federal Regulations

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	CERCLA Hazardous Substances and the Reportable Quantities	SARA Extremely Hazardous Substances EPCRA RQ	SARA Extremely Hazardous Substances TPQ
Sodium Hydroxide	1000 lb 454 kg	-	-
Sodium hypochlorite	100 lb 45.4 kg	100 lb	-

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

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

U.S. State Right-to-Know Regulations

California Proposition 65:
 This product does not contain any Proposition 65 chemicals

16. Other Information

National Fire Protection Association (NFPA) Ratings



NSF Certification



**Certified to
NSF/ANSI 60**

Maximum Use (mg/L unless otherwise indicated):	84
Prepared By:	HSE Department
Issue Date:	24-May-2012
Revision Date:	28-Sep-2012
Revision Note:	MSDS converted to GHS SDS Format.

Disclaimer:

Vertex Chemical Corporation ("Vertex") expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Vertex makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Vertex's control, and, therefore, users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes, and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

End of Safety Data Sheet