



**ADDENDUM #1**

**REQUEST FOR BID (RFB) 2023-3527**

**CHEMICALS FOR WATER AND WASTEWATER TREATMENT**

**BID DUE DATE: AUGUST 9, 2023 @ 2:30 PM**

The following information shall become part of this bid and shall be binding as if originally contained therein.

**QUESTIONS**

1. Per the instructions to Bid (RFB) 2023-3527, Item #3 Preparation of Bid please advise if "Bidders must quote on all items listed and failure to do so will disqualify the bid". Can this request be Voided or removed as we are planning on bidding on 3 out of the 9 products listed on the bid?

**RESPONSE: Please state "no bid" on products not handled.**

RECEIPT OF ADDENDUM **#1** IS HEREBY ACKNOWLEDGED

**Brenntag Mid-South, Inc.**

Firm Name

A handwritten signature in blue ink, appearing to read "Sarah Perry", is written over a horizontal line.

Signature



**ADDENDUM #2**

**REQUEST FOR BID (RFB) 2023-3527**

**CHEMICALS FOR WATER AND WASTEWATER TREATMENT**

**BID DUE DATE: AUGUST 9, 2023 @ 2:30 PM**

The following information shall become part of this bid and shall be binding as if originally contained therein.

**QUESTIONS**

1. What is your current price for sulfuric acid?

**RESPONSE: Our current contracted rate is \$2.51/gal.**

RECEIPT OF ADDENDUM **#2** IS HEREBY ACKNOWLEDGED

**Brenntag Mid-South, Inc.**

Firm Name

A handwritten signature in blue ink, appearing to read "Sara Perry", is written over a horizontal line.

Signature



## ADDENDUM #3

### REQUEST FOR BID (RFB) 2023-3527

#### CHEMICALS FOR WATER AND WASTEWATER TREATMENT

**BID DUE DATE: AUGUST 9, 2023 @ 2:30 PM**

The following information shall become part of this bid and shall be binding as if originally contained therein.

#### QUESTIONS

1. What are the sizes of tanks for Carbon Dioxide located at the two FOB plants?

North Jensen Water & Wastewater Plant  
3100 NW Hillman Drive  
Jensen Beach, FL 34957

Tropical Farms Water & Wastewater Plant  
8595 SW Kansas Avenue  
Stuart, FL 34997

**RESPONSE: Tropical Farms Water & Wastewater Plant is the only site that has a Carbon Dioxide system. Size of the tank is 30 tons.**

2. Who is the current supplier for Carbon Dioxide and what is the current price per pound or ton?

**RESPONSE: There is no current supplier for the Carbon Dioxide. The system is currently being constructed with expected completion before the end of 2023.**

3. Would you please provide the current price for all chemicals on the bid?

#### RESPONSE:

- |  |                            |
|--|----------------------------|
| ○ Liquid sodium Hypochlorite (12%):    | \$1.049/gal                |
| ○ Anhydrous Ammonia:                   | \$1.520/lb or \$7.9040/gal |
| ○ Caustic Soda (Sodium Hydroxide 50%): | \$3.55/gal                 |
| ○ AWCA - 111UL:                        | \$8.12/gal                 |
| ○ Sulfuric Acid:                       | \$2.51/gal                 |
| ○ HTH tablets:                         | \$2.65/lb                  |
| ○ HTH Chlorine granular:               | \$2.32/lb                  |

RECEIPT OF ADDENDUM #3 IS HEREBY ACKNOWLEDGED

Brenntag Mid-South, Inc.

Firm Name



Signature

## REQUEST FOR BID (RFB) 2023-3527

Martin County Board of County Commissioners  
Attn: Purchasing Division  
2401 S.E. Monterey Road  
Stuart, Florida 34996  
[pur\\_div@martin.fl.us](mailto:pur_div@martin.fl.us)  
[www.martin.fl.us](http://www.martin.fl.us)

The Board of County Commissioners, Martin County, Florida, will receive sealed bids for:

### CHEMICALS FOR WATER & WASTEWATER TREATMENT

Martin County is seeking bids from qualified vendors to provide all labor, materials, and services necessary to deliver specified water and wastewater treatment chemicals for the Martin County Utilities & Solid Waste Department on an as-needed basis.

Sealed bids will be received by the Information Desk on the 1<sup>st</sup> Floor at the address above or via DemandStar until **2:30 PM** local time, on **Wednesday, August 9, 2023**. Bids received after the designated time and date will not be considered.

The complete bid document may be downloaded from [www.demandstar.com](http://www.demandstar.com) (online bidding site).

Martin County is an equal opportunity/affirmative action employer.

By order of the Board of County Commissioners of Martin County, Florida.

Publish:	The Stuart News	July 10, 2023
	DemandStar	July 10, 2023

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## LIST OF CONTENTS

Bidders must register with the online bidding site, DemandStar ([www.demandstar.com](http://www.demandstar.com)) in order to receive all required documents and notification of addenda.

This document includes:

1. Scope of Work
2. Instructions to Bidders
3. Sample Agreement Between County and Contractor

The following documents can be downloaded separately.

1. Bid Form
2. Bid Submittal Checklist
3. Bidder's Qualification Statement
4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
5. Conflict Affidavit
6. Drug Free Workplace Certification
7. Equal Opportunity Statement
8. Local Vendor Preference Certification
9. Non-Collusion Certification
10. Public Entity Crimes Statement
11. Vendor Certification Regarding Discriminatory Vendor List

**GOING GREENER!!** One original of the following documents must be returned with bid. Do not return any other pages or documents unless specifically requested in the RFB. **If e-bidding, upload documents as one complete (.pdf) document rather than separately** (no paper copy necessary).

**IMPORTANT: FAILURE TO PROVIDE THE FORMS / DOCUMENTATION LISTED BELOW MAY DEEM A BID "NON-RESPONSIVE" AND BE INELIGIBLE FOR CONTRACT AWARD.**

- Bid Submittal Checklist
- Bid Form
- Affidavit of compliance with the requirements of ANSI/AWWA B510-00 standard
- Bidder's Qualification Statement
- Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- Conflict Affidavit
- Drug Free Workplace Certification
- Equal Opportunity Statement
- Local Vendor Preference Certification (only return if eligible)
- Material Safety Data Sheets (MSDS)
- Non-Collusion Certification
- Product Specifications or Certificates of Analysis
- Public Entity Crimes Statement
- Vendor Certification Regarding Discriminatory Vendor List
- Addenda (if any)

## **SCOPE OF SERVICES**

Includes, but is not limited to all labor, materials, and services necessary to deliver specified water and wastewater treatment chemicals for the Martin County Utilities & Solid Waste Department on an as-needed basis. The quantities listed below and on the bid form are approximate annual usage.

Upon request, the Contractor shall provide safety training on chemical products annually at Martin County sites. Locations shall be provided at the time of the request.

Contractors must comply with NSF/ANSI 60 Standards.

Liquid carbon dioxide shall conform to the standards prescribed by the standard ANSI/AWWA B510-00. Contractors shall provide an affidavit of compliance with the requirements of ANSI/AWWA B510-00 standard, product specification or certificate of analysis, and a Material Safety Data Sheet (MSDS) with the bid form.

### **NSF/ANSI 60**

If you manufacture, sell, or distribute water treatment chemicals in North America, your products must comply with NSF/ANSI 60: Drinking Water Treatment Chemicals – Health Effects, by most governmental agencies that regulate drinking water supplies. Developed by a team of scientists, industry experts, and key industry stakeholders, NSF/ANSI 60 sets health effects criteria for many water treatment chemicals including:

- Corrosion and scale inhibitors
- Disinfection and oxidation chemicals
- pH adjustment chemicals
- All other specialty chemicals used in water treatment

### **ANSI/AWWA B510-00**

This standard covers carbon dioxide (CO<sup>2</sup>) for use in recarbonation and pH adjustment in water supply service. The main purpose of this standard is to provide purchasers, manufacturers, and suppliers with the minimum requirements for carbon dioxide, including physical, chemical, packaging, shipping, and testing requirements.

## **DELIVERY AND INVOICING**

Bid prices shall be delivered Free on Board (FOB) destination to the following locations:

### **North Jensen Water & Wastewater Plant**

3100 NW Hillman Drive  
Jensen Beach, FL 34957

### **Tropical Farms Water & Wastewater Plant**

8595 SW Kansas Avenue  
Stuart, FL 34997

- Extra fees for delivery shall not be charged.
- Safety data sheets (SDS) shall be required to be submitted for all chemicals **prior** to delivery.
- All liquid chemical invoicing paperwork shall be billed in units of price per gallon and price per pound.
- All liquid chemical manifest paperwork must state the amount of liquid in gallons and pounds being delivered to the treatment plants.

(continued on next page)



The following is a listing of the chemicals requested, physical data, annual use projection, and individual shipment quantities.

Alternatives to the products listed below **shall not** be accepted.

<b>Commodity Description</b>	<b>Physical Data</b>	<b>Estimated Annual Use</b>	<b>Individual Shipment Quantities</b>
Liquid Carbon Dioxide	SpG: 1.101 at -37 C Boiling Point -78.5 - -61.7 C (-109 – 79 F) A colorless gas, odorless, water-soluble (Compressed, liquefied gas) Vapor density: 1.5	1,100 tons	Tank truck 25-ton/delivery
Liquid Sodium Hypochlorite (12%)	Density 1.10-1.30 SpG (10%) 1.163 (12%) 1.202 color (green-yellow liquid)	800,000 gallons	Tank truck 5,000 gal/delivery
Anhydrous Ammonia	SpG 0.62 @ 60 F pH+ 11.6 (1 N sol. In water) % volatile by volume: 100 solubility in water: 33% @ 68 F vapor density: 0.6 @ 32 F	10,000 gallons	Tank truck 1,000 gal/delivery
Caustic Soda (Sodium Hydroxide) 50%	LIQUID REACTIVE HAZARD boiling point: 144 C @ 760mm Hg freezing point: 12 C @ 760mm Hg SpG: (15.6 C) 1.53 completely soluble in water odorless	200,000 gallons	Tank truck 5,000 gal/delivery
Caustic Soda (Sodium Hydroxide) 25%	LIQUID REACTIVE HAZARD boiling point: 116 C @ 760mm Hg freezing point: -16 C @ 760mm Hg SpG: (15.6 C): 1.275 completely soluble in water odorless	50,000 gallons	Tank truck 5,000 gal/delivery
Sulfuric Acid (concentrated) 93-98%	SpG: 1.84 boiling point: 535-586 F % volatile: 0 @ 77 F pH (1% solution): + 1.0 colorless, odorless	300,000 gallons	Tank truck 3,000 gal/delivery
AWC A-111 UL	SpG:(@25°) 1.1-1.2, pH(Undiluted), Boiling point >212°F, Appearance and Odor: Light Yellow Liquid with faint odor	2,000 gallons	Truck 55 gallons drums
HTH chlorine 3" tablets (50 lbs.)		25 drums	
HTH chlorine granular (100 lbs.)		25 drums	

## **SECURITY MEASURES**

The following security measures shall be used by Martin County:

1. Contractor shall supply Martin County with current identification of the driver(s) making deliveries, which must contain a photo and name.
2. Martin County shall be notified of the name of the driver(s) before the truck leaves the Contractors' terminal for delivery. This will allow County staff to match the driver(s) photo and name with the I.D. provided when he/she arrives on-site.
3. Driver(s) shall carry identification with them at all times during any chemical delivery.
4. The manifest shall contain detailed information on the product being delivered.
5. Chemical deliveries shall be coordinated prior to any deliveries. County staff prefers Monday through Friday deliveries between the hours of 6:00 a.m. and 6:00 p.m. unless otherwise agreed to at the time the order is placed. Deliveries shall only be accepted with prior proper notification.
6. Drivers may not be admitted if they do not call ahead to coordinate the date and time of arrival of any chemical delivery.

## **CONTRACT**

The County reserves the right and intends to award the Contract to one or more bidders.

The maximum total value of this contract shall not exceed \$14,000,000.00 to all vendors combined over the life of the contract.

The goods and/or services listed in this bid are for the purposes of price comparison and are not intended to be all inclusive. The County may add goods and/or services at any time during the term of this Agreement at a cost to be agreed upon by the Vendor and the County.

The Term of the Contract shall be for a period of three (3) years provided both parties are in agreement and there are no changes to the terms and conditions. The County shall reserve the right to terminate the Contract in accordance with the provisions under the Terms & Conditions herein. The contract may be renewed for two additional 1-year terms, at the County's sole discretion, for a total maximum term of five (5) years. The awardee agrees to this condition by signing their bid.

Price escalations will be considered at the end of each year and must be documented with written verifications of industry price increases.

The County may in its sole discretion make an equitable adjustment in the pricing if pricing or availability of supply is affected by extreme and unforeseen volatility in the marketplace that is by circumstances that satisfy all of the following:

1. The volatility is due to causes wholly beyond the successful bidder's control.
2. The volatility affects the marketplace or industry, not just the particular successful bidder source of supply.

3. The effect on pricing or availability of supply is substantial.
4. The volatility so affects the successful bidder that continued performance of the contract would result in a substantial loss.

Any adjustment would require irrefutable evidence and written approval by the Chief Procurement Officer.

If an adjustment to pricing is granted, beginning quarterly on dates agreed to between the County and the awardee, the awardee shall provide the Chief Procurement Officer with written justification to continue the pricing adjustment. If awardee does not provide the quarterly update, pricing shall revert back to the original pricing submitted by the awardee.

## INSTRUCTIONS TO BIDDERS

Bidders are encouraged to read the following instructions carefully. Deviations, changes, modifications or failures to complete the bid can, and in some instances shall, invalidate the bid.

### 1. PROHIBITED COMMUNICATIONS (“CONE OF SILENCE”)

The Cone of Silence prohibits any communication regarding a RFB, RFP, RFQ or other competitive solicitation between any bidder (or its agents or representatives) or other entity with the potential for a financial interest in the award (or their respective agents or representatives) regarding such competitive solicitation, AND any County Commissioner or County employee, selection committee member or other persons authorized to act on behalf of the Board including the County’s Architect, Engineer or their subconsultants, or to provide a recommendation to award a particular contract, other than Purchasing Division staff ([pur\\_div@martin.fl.us](mailto:pur_div@martin.fl.us)). The Cone of Silence shall be in effect from the time of advertisement until contract award. **Such communication shall result in disqualification.**

### 2. EXAMINATION BY BIDDERS

The Bidder is required to carefully examine the site(s) of the work, specifications, drawings, schedules, special instructions and these general requirements prior to submitting a bid and it will be assumed that the Bidder has investigated and is fully informed of the conditions and obstructions to be encountered, of the character, quality and quantities of work to be performed and materials to be furnished and of the requirements of the plans and other contract documents. The Bidder must inform himself fully of the conditions under which the work is to be performed in relation to both construction and labor conditions; failure to do so will not relieve a successful Bidder of his obligations to furnish all materials, equipment and labor necessary to carry out the provisions of the contract documents and to complete the work for the consideration set forth in their bid.

### 3. PREPARATION OF BIDS

Bids shall be submitted on the Bid Form(s) furnished, or upon an exact copy thereof, and must be signed by an authorized representative of the firm submitting the bid. The County shall not consider any information other than that contained on the Bid Forms; specifically, nothing written on the envelope in which the Bid Forms are contained will be considered except for purposes of identification. Bidders must quote on all items listed and failure to do so will disqualify the bid. The intent of the Bid Form is to secure a price for the work described in the Contract Documents. All bid preparation costs shall be borne by the bidder. The County will not be responsible for paying any bidder for its costs incurred in preparing its bid. **Bid pricing and contact information shall be typewritten.** Handwritten bids shall not be accepted.

### 4. BID PRICING

Bid prices shall be inclusive of all work included in the plans and specs (if any) regardless of itemization on bid form.

### 5. QUANTITIES

The quantities listed in the solicitation, if given, are estimates only and are given only as a guideline for bid preparation. Estimates should not be construed as representing actual quantities to be purchased. Martin County shall not be held to any minimum or maximum purchase quantities.

6. **SUBSTITUTE MATERIAL AND EQUIPMENT**

A bid submittal will be considered on the basis of the specified material and equipment provided in the Contract Documents, Plans, and Technical Specifications. A Prime Contractor/Bidder may propose substitution (also known as an “approved equivalent or equal” item) materials, products, equipment, or suppliers that meets or exceeds the specifications as provided and shall be approved by the Engineer of Record prior to acceptance as a substitution.

Proposed substitutions shall be submitted a **minimum of (14) calendar days** prior to the bid due date and shall include supportive information in the form of the manufacturer’s printed literature or brochures, sketches, diagrams, and complete specifications adhering to the intent of the design character, quality, and loading capacities.

The substitution must be accompanied with an explanation in detail of how it will maintain and complement the complete design without any need for revisions. Any additional costs, including design and construction modifications, not anticipated by the Contractor as a result of the substitution or equivalent item shall be the Contractor’s responsibility.

All approved substitutions shall be posted for approval to all bidders a minimum of (5) calendar days prior to the bid due date. Any bids with substitutions that have not been approved by the County as specified herein shall be deemed non-responsive.

7. **MINIMUM STANDARD**

Specifications describe the expected minimum standard. These specifications are intended to be descriptive in nature and are not intended to eliminate any vendor from submitting a bid.

8. **PERMITS / LICENSES / FEES**

Unless otherwise noted in the bid document, any permits, licenses or fees required will be the responsibility of the Contractor as part of the contract, if applicable. No separate payment will be made. Adherence to all applicable code regulations (Federal, State, County, City) are the responsibility of the Contractor.

9. **CONFLICTS, ERRORS, AMBIGUITIES OR DISCREPANCIES**

Bidders shall promptly notify the Purchasing Division ([pur\\_div@martin.fl.us](mailto:pur_div@martin.fl.us)) of all conflicts, errors, ambiguities or discrepancies discovered in the solicitation documents. The County will not be responsible for incorrect assessments by the Bidder.

10. **INQUIRIES/ADDENDA**

Verbal interpretations of the meaning of the Drawings, Specifications, Sample Contract or other Contract Documents will not be valid. **Every request for interpretation shall be in writing and e-mailed to Purchasing at [pur\\_div@martin.fl.us](mailto:pur_div@martin.fl.us) no later than 5:00 PM on Monday the week prior to the bid due date.** The County will respond to all such requests for interpretation and any supplemental instructions in the form of written addenda and shall publish such addenda on the online bidding site (DemandStar) no later than five (5) calendar days prior to the bid opening date fixed for the opening of bids. Bidders must acknowledge receipt of the addenda in their bid. Failure of any bidder to receive, or to acknowledge receipt of any such addenda shall not relieve such bidder from any obligation under its bid as submitted, provided, however, that failure to so acknowledge receipt of any such addenda may render a bid non-responsive and result in its rejection. Bidders are advised to contact

the County prior to submitting bids to satisfy themselves as to the existence and number of all such addenda. All addenda so issued shall become part of the Contract Documents.

#### 11. **BUSINESS REGISTRATION**

Bidders seeking to do business with Martin County (that fall under the categories listed below) shall, before award of contract, be registered, or shall have applied for registration, with the Florida Department of State, Division of Corporations in accordance with the provisions of Chapter 607 and/or 620, Florida Statutes (<https://dos.myflorida.com/sunbiz/>):

- Corporations [foreign or domestic]
- Limited Liability Companies (LLC)
- Non-profits
- Partnerships

Doing Business As [DBA] - If the Bidder's name stands apart from the owner's or partners' personal legal name, or the officially registered name of an LLC or corporation, the Bidder, before award of contract, shall be registered as a fictitious name with the Florida Division of Corporations in accordance with the provisions of Chapter 865, Florida Statutes.

The above requirements are also applicable to all subcontractors proposed in the bid submittal.

#### 12. **LICENSING REQUIREMENTS**

Bidders shall, at the time of submitting a bid in response to this solicitation, be licensed by the appropriate federal, state and local regulatory agencies as it relates to Bidders' profession or business. Bidder shall provide proof of certification and/or registration as a Contractor by the State of Florida applicable to the work required in the solicitation.

The above requirements are also applicable to all subcontractors proposed in the bid submittal.

#### 13. **BIDDERS DISCLOSURE**

In each bid by an individual or firm, there shall be stated the name and address of every person having an interest in the bid; and in case of a corporation the names and addresses of its officers. Bids shall be signed by the person or member of the firm making the same, and in the case of a corporation, by some authorized officer or agent subscribing the name of the corporation and his own name.

#### 14. **SUBMISSION OF BIDS:**

Bids may be submitted via e-bid (DemandStar), hand delivery, or mail.

**E-Bidding** (via DemandStar) [www.demandstar.com](http://www.demandstar.com)

Upload one (1) electronic copy (**single file**) in **PDF format** to DemandStar.

E-bidding through the online bidding site shall be accepted in lieu of a sealed paper bid as outlined below. However, the bidder shall be responsible for ensuring that the required bid documents are properly uploaded and accepted by the online bidding site. The County shall not be responsible for nor accept bids not properly uploaded by the bid due date and time.

### **Hand Delivery or Mail:**

One (1) copy of the Bid must be submitted in a sealed envelope, plainly marked on the outside with the Bidder's name, RFB number and bid due date. Bids shall be delivered to the address detailed on the cover page of this solicitation. If forwarded by regular mail or express mail, the sealed envelope containing the bid and marked as directed above, shall be enclosed in another envelope addressed to the U.S. Mail address indicated on the cover page. If forwarded by overnight courier services (other than United States Postal Service Express Mail), the sealed envelope containing the bid and marked as directed above, shall be enclosed in another envelope addressed to the street address indicated on the cover page. Bids may be hand-delivered. Bids by fax or e-mail will **NOT** be accepted. The County cautions bidders to assure actual delivery of mailed or hand-delivered bids directly to the Martin County Administrative Center (Attn: Purchasing Division), 1st Floor, Information Desk, 2401 S. E. Monterey Road, Stuart, Florida. Confirmation of timely receipt of the bid may be made by e-mailing [pur\\_div@martin.fl.us](mailto:pur_div@martin.fl.us) before bid opening time. Bids received after the established deadline shall **not** be considered.

### **15. POWER OF ATTORNEY**

Attorneys-in-Fact who sign bonds must file with the board a certified copy of their power of attorney to sign such bonds.

### **16. JOINT VENTURE**

If the bid involves a joint venture, a copy of the joint venture agreement shall be included with the bid along with the attached "Statement of Business Organization".

### **17. RELIANCE UPON BID**

The County shall be entitled to rely upon all representations, including financial and other terms of performance, contained within a bid. The bidder further agrees to be bound to perform in accordance with its bid terms, including price. All bid terms, including price, shall be valid for a period of **90 calendar days** from the date of the bid opening.

### **18. PUBLIC BID OPENING**

Sealed bids will be received at the Martin County Administrative Center, Attn: Purchasing Division, 2401 SE Monterey Road, Stuart, Florida 34996, at the time set forth in the solicitation. Bids received after the designated time and date will not be considered. Bids will be publicly opened and read in the Commission Chambers (unless otherwise stated herein).

### **19. ACCEPTANCE OR REJECTION OF BIDS**

The County reserves the right to reject any and all bids when (i) such rejection is in the interest of the County; (ii) such bid is void per se; or (iii) the bid contains any irregularities, provided, however, that the County reserves the right to waive any minor irregularities and to accept the lowest responsible and responsive bid determined by the County. Bids may be considered irregular if there are omissions, unauthorized alterations of any forms, additions not called for, conditional or unauthorized alternate bids, or other irregularities of any kind. The County reserves the right to request a written confirmation of the bid and the responsibility of the bidder prior to the awarding of the Contract. Failure of the bidder to confirm the bid within seven (7) working days from the date of the County's request may

render the bid non-responsive and will entitle the County to award to the next lowest bidder and may require forfeiture of the bid bond.

**20. REFERENCES**

References may be contacted by the County to validate information provided by the Bidder and to determine the client's overall satisfaction with the services provided. Bidder is responsible for notifying their references that the County may contact them. If references cannot be reached, the bid may be deemed non-responsive and rejected. If references obtained by the County are not favorable, the County may reject the bid.

**21. PUBLIC RECORD**

Bids become a "public record" and shall be subject to disclosure consistent with Chapter 119, Florida Statutes, thirty (30) calendar days after the bid opening or upon bid award in accordance with Chapter 119, Fla. Stat. Marking a proposal "confidential" or "proprietary" does not exclude all or any part of the proposal from disclosure under public records requirements. To claim the proposal or a portion thereof as exempt or confidential and exempt from disclosure, you must state the basis of the exemption, including the statutory citation to an exemption created or afforded by Florida Statutes; state in writing and with particularity the reasons for the conclusion that the proposal is exempt or confidential and exempt; and if only a portion of the proposal is claimed to be exempt or confidential and exempt, provide a redacted version of the proposal showing those portions claimed to be exempt or confidential and exempt. Proposals submitted with claimed exemptions shall be reviewed and release of these records shall be at the County's discretion. Failure to notify the County of claimed exemptions constitutes a waiver and the submittal will be released as requested.

**22. WITHDRAWAL OF BIDS**

Prior to the bid opening, a bid may be withdrawn provided that the bidder submits a written request that is signed by an authorized representative of the firm that submitted the bid. However, modifications will not be accepted or acknowledged.

**23. NOTICE OF INTENDED AWARD**

A bid tabulation will be posted as soon after the bid opening as possible on the County's website at [www.martin.fl.us](http://www.martin.fl.us). Notice of Award will be posted on the online bidding site (DemandStar).

**24. FUND AVAILABILITY**

Any contract resulting from this solicitation is deemed effective to the extent of appropriations available.

**25. CONTRACTOR'S FINANCIAL ABILITY**

The apparent low, responsive bidder shall provide evidence of financial health prior to bid award, upon request, including but not limited to financial statements, cash flow projections, bank statements and tax returns. Failure to provide requested information shall deem the bidder non-responsive.

**26. RESPONSIBLE BIDDER (VENDOR)**

Florida Statute 287.012(25) states that a "Responsible vendor" means a vendor who has the capability in all respects to fully perform the contract requirements and the integrity and reliability that will assure good faith performance. The County shall review factors, including



but not limited to, past project performance, references and length of time in business and shall make the determination of responsibility in its sole discretion. A Contractor Performance Evaluation will be completed at the end of each project. An overall rating of “poor” will result in the Contractor being deemed “non-responsible” for future bids and will result in rejection of bid.

**27. RESPONSIVE BIDDER (VENDOR)**

A vendor that has submitted a bid, offer, proposal, quotation or response that conforms in all material respects to the solicitation.

**28. BID PROTEST PROCEDURE**

Protests shall be in accordance with the procedure outlined in Section 19 of the Martin County Purchasing Manual which is available on the County’s website: <https://www.martin.fl.us/resources/purchasing-manual>

**29. CONTRACT**

The bidder understands that this solicitation does not constitute a Contract with the bidder. County contracts are awarded only when a fully executed written agreement has been returned to the Bidder by the County. No one shall be entitled to rely on any other action as an award. The County will not be liable for any costs incurred by the bidder prior to execution of the contract by the parties. The bidder to whom the award is made shall, within fourteen (14) calendar days after receipt of the Contract, execute the Contract on the form attached and return it to the County. The executed Contract should be returned to the County accompanied by the required insurance documents and any other documentation that may be required by the Contract documents to be submitted at that time. If the bidder fails to execute the Contract or provide the insurance and other required documentation within fourteen (14) calendar days, there shall be just cause for the annulment of the award and forfeiture of the Bid Guaranty (if applicable) to the County. Award may then be made to the next lowest, responsible, and responsive bidder or the work may be re-advertised at the County’s sole discretion.

**30. EQUAL OPPORTUNITY**

The County recognizes fair and open competition as a basic tenet of public procurement. Contractors doing business with the County are prohibited from discriminating on the basis of race, color, creed, national origin, handicap, age or sex.

**31. LOCAL VENDOR PREFERENCE**

When a responsible and responsive, non-local business submits the lowest price bid and the bid submitted by one or more qualified and responsive local businesses is equal to or within five percent (5%) of the price submitted by the Apparent Low Bidder, then the local business with the apparent next-lowest qualified and responsive bid offer shall have the opportunity to submit an offer that matches the price offered by the Apparent Low Bidder in accordance with Section 135.7, Code of Ordinances, Martin County Code.

**32. AWARD**

For the purpose of award, the County will consider as the bid the correct summation of each unit price multiplied by the estimated quantities or the submitted total of all line items at the County’s sole discretion and in the County’s best interest. The County may award based on the basis of quantities included in the BASE BID or quantities included in the base bid plus bid alternatives, if any, and/or number of days to complete, at the County’s sole discretion.

The County reserves the right to cancel the bid, accept or reject any and all bids in whole or in part, and waive any irregularity or technicality in bids received. When it is determined there is no competition to the lowest responsive, responsible Bidder, rebidding of the project is not required. Bidders are cautioned to make no assumptions unless their bid has been evaluated as being responsive. The County reserves the right to award the Contract to one or more bidders or not make any award(s) under this bid.

**33. SPLIT AWARD**

Martin County reserves the right to award to the overall lowest, most responsive bidder or to award by line item should that be in the best interest of the County.

**34. SUBCONTRACTING / ASSIGNMENT**

The Contractor shall not assign the contract or subcontract any requirement without obtaining the prior written approval of Martin County.

**35. USE OF COUNTY CONTRACTS BY OTHER ENTITIES**

At the option of the Contractor, use of County contracts may be extended to other governmental agencies, and non-profit organizations for piggybacking. Each entity allowed by the Contractor to use a County contract shall do so independent of any other entity. Each agency shall be responsible for its own purchases and shall be liable only for goods or services ordered, received and accepted. The County does not endorse the use of any contractor and shall not be liable for any third-party transaction. The Contractor shall not be obligated to extend piggyback offers.

**36. ADDITIONAL TERMS AND CONDITIONS**

No additional terms and conditions included with the bid response shall be evaluated or considered and any and all such additional terms and conditions shall have no force and effect and are inapplicable to this bid. If submitted either purposely through intent or design or inadvertently appearing separately in transmitting letters, specifications, literature, price lists, or warranties it is understood and agreed that the general and special conditions in this solicitation are the only conditions applicable to this bid and the bidders authorized signature affixed to the bid signature section attests to this fact.

**37. SHIPPING / DELIVERY**

Goods, services, supplies or equipment covered in the specifications shall be delivered F.O.B. Destination.

**38. PERFORMANCE DURING EMERGENCY**

By submitting a bid, bidder agrees and promises that, during and after a public emergency, disaster, hurricane, flood, or acts of God, Martin County shall be given "first priority" for all goods and services under this contract (if applicable). Bidder agrees to provide all goods and services to Martin County throughout the emergency/disaster at the terms, conditions, and prices as provided in this solicitation, and with a priority above, a preference over, sales to the private sector. Bidder shall furnish a 24-hour phone number and address to the County in the event of such an emergency. Failure to provide the stated priority/preference during an emergency/disaster shall constitute breach of contract and make the bidder subject to sanctions from further business with the County.

**39. FEDERAL, STATE AND COUNTY REGULATIONS**

The successful bidder(s) and their employees shall conform to all Federal, State and County regulations while in performance of their contracts. Any individual found not to conform shall not be allowed to start to work or if started shall be required to leave the job site immediately. Continued violations by any Successful Bidder shall result in the immediate termination of the Successful Bidder contract.

**40. CONFLICT OF INTEREST**

Section 112.313, Florida Statutes, prohibits contracts with County employees, officers and advisory board members. All vendors must disclose the name of any Martin County officer or employee who is employed by (Section 112.313(7), Florida Statutes) or owns, directly or indirectly an interest in the vendor's firm or any of its branches (Section 112.313 (3), Florida Statutes). Advisory Board Members, County officers or County employees may qualify for an exemption by including a completed Commission on Ethics Form 3A with their submittal and filing such form with the Supervisor of Elections in accordance with Section 112.313(12)(b), Florida Statutes. Please contact the Purchasing Division for additional information.

**41. NO OBLIGATION BY FEDERAL GOVERNMENT**

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

**42. IMMIGRATION REFORM AND CONTROL ACT OF 1986**

The Contractor agrees that it does not and will not, during the performance of the Contract, employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986, as amended. If the Contractor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of the Contract. The Contractor shall be responsible for including this provision in all contracts with subcontractors related to this Contract.

**43. NON-COLLUSION**

Martin County reserves the right to disqualify bids upon evidence of collusion with intent to defraud, or other illegal practices to include circumventing or manipulating the bid process in a manner that conflicts with applicable law, upon the part of the Bidder(s), Bidder's employees or agents, the County's Professional Consultant(s), or Consultant's agents, or any County employee(s) who may, or may not, be involved in the development of bid specifications and/or firm bid schedules. Multiple bids from an individual, partnership, corporation, association (formal or informal) or firm under the same or different names shall not be considered. Reasonable grounds for believing that a Bidder has interest in multiple proposals for the same work shall be cause for rejection of all proposals in which such Bidder is believed to have an interest in. Any and/or all proposals shall be rejected if there is any reason to believe that collusion exists among one or more of the Bidders, the County's Professional Consultant(s) or County employees. Any Contractor involved in the development of bid specifications or has direct knowledge of the bid specifications prior to a bid advertisement shall be disqualified from participating in the applicable bid process.

**44. PUBLIC ENTITY CRIMES**

Any bidder, or any of his suppliers, subcontractors, or consultants who shall perform work which is intended to benefit the County shall not be a convicted vendor or, if the bidder or any of his suppliers, subcontractors, or consultants of the bidder has been convicted of a

public entity crime, a period longer than 36 months shall have passed since that person was placed on the convicted vendor list. The bidder further understands and accepts that any contract issues as a result of this solicitation shall be either voidable by the County or subject to immediate termination by the County, in the event there is any misrepresentation or lack of compliance with the mandates of Section 287.133 Florida Statutes. The County, in the event of such termination, shall not incur any liability to the respondent for any work or materials furnished.

**45. VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES LIST**

Section 287.135, Florida Statutes prohibits a company from bidding on, submitting a proposal for, or entering into or renewing a contract for goods or services of any amount if, at the time of contracting or renewal, the company is on the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, Florida Statutes, or is engaged in a boycott of Israel. Section 287.135, Florida Statutes, also prohibits a company from bidding on, submitting a proposal for, or entering into or renewing a contract for goods or services of \$1,000,000 or more, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector Lists which were created pursuant to s. 215.473, Florida Statutes.

**46. SUSPENSION AND DEBARMENT**

Martin County will not make award to parties listed on the government-wide exclusions list in the System for Award Management (SAM). The bidder agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions. By submittal of a bid in response to this solicitation, bidder asserts neither it nor its principals are presently debarred, suspended or proposed for debarment, declared ineligible, or voluntarily excluded from participation in this work by any Federal department or agency. For work funded by federal grant, contractor is required to have an active registration with the System for Award Management (<https://sam.gov/content/home>) prior to execution of the agreement.

**47. E-VERIFY**

Bidder must be registered with and use, at their sole expense, the Department of Homeland Security's E-Verify system ([www.e-verify.gov](http://www.e-verify.gov)) to confirm the employment eligibility of all newly hired employees, as required by Section 448.095, F.S. Owner, contractor, and subcontractors may not enter into a contract unless each party to the contract registers with and uses the E-Verify system. Contractor is responsible for obtaining proof of E-Verify registration for all subcontractors. This requirement applies to any provider of services or goods.

**48. ADDITIONAL INFORMATION**

All terms and conditions of the Martin County Purchasing Manual are incorporated into this solicitation by reference and are fully binding. Bidders are required to submit their responses to this solicitation, and to conduct their activities during this process in accordance with the Martin County Purchasing Manual. This solicitation, the subsequent evaluation, negotiations, and contract award shall be in accordance with the Martin County Purchasing Manual. The County reserves the right to disqualify, remove from consideration, or debar as appropriate,

any vendor that does not comply with the applicable requirements set forth in the Martin County Purchasing Manual. The Purchasing Manual is available on the County's website: <https://www.martin.fl.us/resources/purchasing-manual>

Each Respondent, by submitting a bid in response to this solicitation, hereby agrees to comply with, and perform in accordance with any and all policies and procedures provided in the Martin County Purchasing Manual, the County Administrative Code, and any and all other local, state, and federal rules, regulations, laws, codes and ordinances throughout the solicitation and contract term.

This document may be reproduced upon request in an alternative format by contacting the County ADA Coordinator (772) 320-3131, the County Administration Office (772) 288-5400, Florida Relay 711, or by completing our accessibility feedback form at [www.martin.fl.us/accessibility-feedback](http://www.martin.fl.us/accessibility-feedback)



**SAMPLE**

**AGREEMENT BETWEEN COUNTY AND CONTRACTOR FOR  
GOODS AND SERVICES**

THIS AGREEMENT, effective this \_\_\_\_ day of \_\_\_\_ in the year, 2023, between:

MARTIN COUNTY BOARD OF COUNTY COMMISSIONERS, a political subdivision of the State of Florida, (hereinafter COUNTY), located at 2401 S.E. Monterey Road, Stuart, FL 34996

AND the CONTRACTOR:  
(hereinafter CONTRACTOR)

Contract Name:

Contract Number:

Contract Term: Three (3) years plus two (2) 1-year renewal options  
(Not to exceed 5 years)

Not to Exceed Amount: \$

**WHEREAS**, COUNTY has previously determined that it has a need for goods and/or services more specifically outlined in the Request for Bids (RFB) and the Scope of Services; and

**WHEREAS**, COUNTY solicited competitive bids for such services pursuant to the Martin County bid number referenced on Page 1 of this Agreement; and

**WHEREAS**, COUNTY awarded the Bid to CONTRACTOR; and

**WHEREAS**, CONTRACTOR has represented that it is able to satisfactorily provide the services and or materials according to the terms and conditions of the RFB, which is incorporated herein by reference, and the terms and conditions contained herein; and

**NOW THEREFORE**, in consideration of the above and mutual covenants contained herein, the parties agree as follows:

1. **Services to be Performed.** The CONTRACTOR hereby agrees to provide the COUNTY with goods and services, as requested and more specifically outlined in the Scope of Services attached hereto and made a part hereof as Exhibit A, this Agreement and all subsequent official documents that form the Contract Documents for this Agreement, including any additional contract terms contained herein.

2. **Time of Service.** Services shall be performed in a timely manner, as specified in the Request for Bid or as set forth herein.

3. **Term of Agreement/Option of Renewal.** This Agreement shall be in effect from the date of execution and for the term and agreed upon renewal options indicated on Page 1 of this Agreement. This Agreement may be extended subject to execution of a written agreement between the COUNTY and CONTRACTOR for up to 90 additional days beyond the term and agreed upon renewal options. This option shall be exercised only if all prices, terms and conditions remain the same, or decrease.

4. **Amendment of the Agreement.** This Agreement may be amended only by mutual written agreement signed by the parties. No statement, representations, warranties, either written or oral, from whatever source arising, except as expressly stated in this Agreement, shall have any legal validity between the parties or is binding upon any of them. The parties acknowledge that this agreement contains the entire understanding and agreement of the parties. No modifications hereof shall be effective unless made in writing and executed by the parties hereto with the same formalities as this Agreement is executed.

5. **Assignment/Subcontracting.** The CONTRACTOR shall perform all services and provide all goods and equipment required by this Agreement. No assignment or subcontracting shall be allowed without the prior written consent of the COUNTY. In the event of a corporate acquisition and/or merger, the CONTRACTOR shall provide written notice to the COUNTY within thirty (30) business days of CONTRACTOR'S notice of such action or upon the occurrence of said action, whichever occurs first. The right to terminate this Agreement, which shall not be unreasonably exercised by the COUNTY, shall include, but not be limited to, instances in which a corporate acquisition and/or merger represent a conflict of interest or are contrary to any local, state or federal laws. Action by the COUNTY awarding a bid to a bidder, which has disclosed its intent to assign or subcontract in its response to the RFB, without exception shall constitute approval for purpose of this Agreement.

**6. Termination.**

6.1 COUNTY shall notify CONTRACTOR of any failure to comply with any requirement in the Scope of Work and shall notify CONTRACTOR in writing of such failure/default. CONTRACTOR shall correct such failure/default within five (5) working days. COUNTY shall have the right to terminate this Agreement if such correction is not made within the time specified above.

6.2 Failure of the CONTRACTOR to comply with any of the provisions of this Agreement shall be considered a material breach of Agreement and shall be cause for immediate termination of the Agreement at the sole discretion of the COUNTY.

6.3 COUNTY reserves the right to cancel this Agreement, without cause, by giving thirty (30) days prior written notice to the CONTRACTOR of the intention to terminate.

**7. Compensation.** COUNTY shall pay CONTRACTOR upon CONTRACTOR's completion of, and COUNTY's acceptance of, the services required herein, in the amounts specified in the Price Schedule attached hereto and made a part hereof as Exhibit B. Price escalations will be considered at the end of each year and must be documented with written verifications of industry price increases.

7.1 The County may in its sole discretion make an equitable adjustment in the pricing if pricing or availability of supply is affected by extreme and unforeseen volatility in the marketplace that is by circumstances that satisfy all of the following:

- a. The volatility is due to causes wholly beyond the successful bidder's control.
- b. The volatility affects the marketplace or industry, not just the particular successful bidder source of supply.
- c. The effect on pricing or availability of supply is substantial.
- d. The volatility so affects the successful bidder that continued performance of the contract would result in a substantial loss.

7.2 Any adjustment would require irrefutable evidence and written approval by the Purchasing Manager.

7.3 If an adjustment to pricing is granted, beginning quarterly on dates agreed to between the County and the awardee, the awardee shall provide the Purchasing Manager with written justification to continue the pricing adjustment. If awardee does not provide the quarterly update, pricing shall revert back to the original pricing submitted by the awardee.

7.4 COUNTY shall pay invoices in accordance with the Local Government Prompt Payment Act.

**8. Permit/ Licenses.** CONTRACTOR must secure and maintain any and all permits and licenses required to complete this Agreement.

**9. Public Records.**



9.1 CONTRACTOR shall comply with the provisions of Chapter 119, Fla. Stat. (Public Records Law), in connection with this Agreement and shall provide access to public records in accordance with §119.0701, Fla. Stat. and more specifically Contractor shall:

9.1.1 Keep and maintain public records required by the County to perform the Agreement.

9.1.2 Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Fla. Stat. or as otherwise provided by law.

9.1.3 Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and following completion of the Agreement if the CONTRACTOR does not transfer the records to the County.

9.1.4 Upon completion of the Agreement, transfer, at no cost, to the County all public records in possession of the CONTRACTOR or keep and maintain public records required by the County to perform the Agreement. If the CONTRACTOR transfers all public records to the County upon completion of the Agreement, the CONTRACTOR shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the CONTRACTOR keeps and maintains public records upon completion of the Agreement, the CONTRACTOR shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the information technology systems of the County.

9.1.5 All blueprints, schematics and design drawings received by the CONTRACTOR from the COUNTY shall not be re-copied or forwarded to another party unless documented permission has been received by COUNTY. Documents shall be documented as retained, returned, or destroyed by CONTRACTOR accepting said documents. In accordance with the Florida Public Records Act, these documents are exempt from Public Disclosure as described in 119.071, Fla. Stat., general exemptions from inspection or copying of public records.

**9.2 IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (772) 419-6959, [public\\_records@martin.fl.us](mailto:public_records@martin.fl.us), 2401 SE MONTEREY ROAD, STUART, FL 34996.**

9.3 Failure to comply with the requirements of this Article shall be deemed a default as defined under the terms of this Agreement and constitute grounds for termination.

**10. Minimum Insurance Requirement.** The CONTRACTOR must maintain insurance in at least the amounts required throughout the term of this Agreement or any renewals or extensions. The CONTRACTOR must provide a Certificate of Insurance in accordance with the Insurance Requirements and as set forth herein naming the COUNTY as an additional named insured evidencing such coverage prior to issuance of a purchase order or commencement of any work under this Agreement.

- a. Loss Deductible Clause: The COUNTY shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of such deductible shall be the sole responsibility of the Contractor and/or subcontractor providing such insurance.
- b. Worker's Compensation Insurance: The Contractor shall take out and maintain during the life of this Agreement, Worker's Compensation Insurance for all of its employees connected with the work of this project and, in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. Such insurance shall comply fully with the Florida Worker's Compensation Law. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under the Worker's Compensation statute, the Contractor shall provide, and cause each subcontractor to provide adequate insurance, satisfactory to the COUNTY for the protection of its employees not otherwise protected. Coverage to include Employers Liability \$100,000 each accident, \$100,000 each Disease/Employee and \$500,000 each Disease/Maximum.
- c. Commercial Automobile Liability Insurance: The Contractor shall take out and maintain during the life of this agreement Comprehensive Automobile Liability Insurance for “**Any Auto**” (owned, hired and non-owned) for a minimum of \$1,000,000 Combined Single Limit.
- d. Commercial General Liability Insurance: The Contractor shall take out and maintain during the life of this agreement Commercial General Liability Insurance including coverage for bodily injury, property damage, personal/advertising injury and products/completed operations for negligent acts which may arise from operations under this Agreement whether such operations are alone or by anyone directly or indirectly employed by it. The policy should include Contractual Liability to cover the hold harmless and indemnity provision as set forth in this agreement. **A per project** limit of liability is required. The amounts of such insurance shall be the minimum limit as follows:

Each Occurrence -	\$1,000,000
Personal/Advertising Injury -	\$1,000,000
Products/Completed Operations Aggregate -	\$2,000,000
General Aggregate -	\$2,000,000
Fire Damage -	\$100,000 and 1 fire
Medical Expense -	\$10,000 any 1 person

- e. Commercial Automobile and General Liability Insurance: The Contractor shall require each of its subcontractors to procure and maintain during the life of this

subcontract, insurance of the type specified above or insure the activities of his subcontractors in its policy, as specified above.

- f. Waiver of Subrogation. The CONTRACTOR hereby waives any and all rights of Subrogation against the COUNTY, its officers, employees and agents for each required policy. When required by the insurer or should a policy condition not permit an insured to enter into a pre-loss agreement to waive subrogation without an endorsement, then the CONTRACTOR shall agree to notify the insurer and request the policy be endorsed with a Waiver of Transfer of rights of Recovery Against Others, or its equivalent.

**11. Indemnification**. CONTRACTOR shall indemnify and hold harmless the COUNTY and Federal government from all suits, actions or claims of any character brought on account of any injuries or damages received or sustained by any person, person or property by or from the said CONTRACTOR; or by, or in consequence of any neglect in safeguarding the work; or by the use of unacceptable materials in the construction of improvements; or on account of any act or omission, neglect or misconduct of the said CONTRACTOR; or by, or on account of, any claim or amounts recovered under the "Workers Compensation Law" or of any other laws, by-laws, ordinance, order or decree, except only such injury or damage as shall have been occasioned by the sole negligence of the COUNTY. The first ten dollars (\$10.00) of compensation received by the CONTRACTOR represents specific consideration for this indemnification obligation.

**12. Governing Law**. The laws of the State of Florida shall govern this Agreement.

**13. Independent Contractor Status and Compliance with the Immigration Reform and Control Act of 1986**. The CONTRACTOR is and shall remain an independent contractor and is neither agent, employee, partner nor joint venture of COUNTY. CONTRACTOR acknowledges that it is responsible for complying with the provisions of the Immigration Reform and Control act of 1986 located at 8 U.S.C. 1324, et. Seq., and regulations relating thereto, as either may be amended from time to time. Failure to comply with the above provisions shall be considered a material breach and shall be grounds for immediate termination of the Agreement, at the discretion of COUNTY.

**14. Severability**. The terms and conditions of this Agreement shall be deemed to be severable. Consequently, if any clause, term, or condition hereof shall be held to be illegal or void, such determination shall not affect the validity or legality of the remaining terms and conditions, and notwithstanding any such determination, this Agreement shall continue in full force and effect unless the particular clause, term, or condition held to be illegal or void renders the balance of the Agreement to be impossible or performance.

**15. Conflict of Interest**. CONTRACTOR represents that it has no interest and shall acquire no interest(s), which conflict in any manner with the performance of services required hereunder, as provided for in Chapter 112, Part 111, of the Florida Statutes, CONTRACTOR further represents that no person having any interest shall be employed for said performance. CONTRACTOR shall notify COUNTY in writing by certified mail of all potential conflicts of interest for any prospective business association, interest or other circumstance which may influence or appear to influence CONTRACTOR'S judgment or quality of services being provided hereunder. Such written notification shall identify the prospective business association, interest or circumstance, the nature of work that CONTRACTOR may undertake and request an opinion from COUNTY, the prospective business association, interest or circumstance would not

constitute a conflict of interest by CONTRACTOR, COUNTY shall so state in the notification and CONTRACTOR shall, at its option, enter into said association, interest or circumstance and it shall be deemed not in conflict with respect to services provided to COUNTY by CONTRACTOR under the terms of this Agreement.

**16. Documents Comprising Agreement.** The Agreement documents shall include this Agreement as well as the following documents, which are incorporated herein by reference.

- e. Martin County's Request for Bid and all of its addenda and attachments which are part of the RFB set forth above.
- f. Contractor's Certificate of Insurance required in the Request for Bid;
- g. Contractor's response to the RFB or soliciting document.

**17. Dispute Resolution.**

17.1 As a condition precedent to the filing of any legal proceedings, the parties shall endeavor to resolve claim disputes or other matters in question by mediation. Mediation shall be initiated by any party by serving a written request for same on the other party. The party shall, by mutual agreement, select a mediator within 15 days of the date of the request for mediation. If the parties cannot agree on the selection of a mediator then the COUNTY shall select the mediator, who, if selected solely by the COUNTY, shall be a mediator certified by the Supreme Court of Florida. The mediator's fee shall be paid in equal shares by each party to the mediator.

17.2 **Attorney's Fees.** The parties expressly agree that each party will bear its own attorney's fees incurred in connection with this Agreement.

17.3 **Venue.** This Agreement and the terms hereof shall be construed in accordance with the laws of the State of Florida and venue for all actions in a court of competent jurisdiction shall lie in Martin County, Florida.

17.4 **Non-jury trial.** The parties expressly and specifically hereby waive the right to a jury trial as to any issue in any way connected with this Agreement.

17.5 The parties expressly and specifically hereby waive all tort claims and limit their remedies to breach of contract as to any issue in any way connected with this Agreement.

**18. Confidential Information.**

18.1 Any information such as specifications, drawings, sketches, business information, forecasts, models, samples, data, computer programs and other software, and documentation of one Party (a "Disclosing Party") that is furnished or made available or otherwise disclosed to the other Party or to such other Party's employees, contractors, or agents (a "Receiving Party") pursuant to this Agreement ("Proprietary Information") shall be deemed the property of the Disclosing Party. Proprietary Information, if written, shall be clearly and conspicuously marked "Proprietary". Such information may be disclosed to those persons who have a need for it in connection with the provision of services required to fulfill this Agreement and shall be used by those persons only for such purposes; and may be used for other purposes only upon such terms and conditions as may be mutually agreed to in advance of such use in writing by the Parties. Notwithstanding the foregoing sentence, COUNTY shall be entitled to

disclose or provide Proprietary Information as required by any governmental authority or applicable law, including but not limited to Section 119, Fla. Stat. Existence and terms of this Agreement shall constitute a public record and shall be subject to Section 119, Fla. Stat. CONTRACTOR agrees to comply with the requirements of Sec. 119.0701, Fla. Stat.

18.2 If COUNTY receives a public records request for public records received from CONTRACTOR, including any public records request for Proprietary Information or for records that may be or may contain Proprietary Information, COUNTY shall promptly notify CONTRACTOR. The notice shall inform CONTRACTOR that it must promptly inform COUNTY, in writing, whether or not CONTRACTOR claims an exemption to the release of part or all of the requested public record. If CONTRACTOR claims that part or all of a public record is exempt from inspection and copying, that writing shall state the basis of the exemption that it contends is applicable to the record, including the statutory citation to an exemption created or afforded by statute. If CONTRACTOR claims that an exemption applies to part of a requested public record, CONTRACTOR shall, in that writing, identify for redaction the part of that public record to which the exemption is asserted and validly applies, and the remainder of that public record shall be produced for inspection and copying. If CONTRACTOR promptly notifies COUNTY of a claim of exemption, COUNTY shall review the exemption claimed and decide whether to release the public records. If CONTRACTOR fails to promptly notify COUNTY that it claims an exemption to the release of the requested public record, that failure constitutes a waiver of any claim of trade secret or confidentiality, and COUNTY shall release the record as requested.

18.3 CONTRACTOR will indemnify, defend, and hold COUNTY, COUNTY's elected officials, employees, agents, and attorneys and their successors (each an "Indemnitee") harmless of and from any claim brought or threatened against any Indemnitee by any person or entity on account of or related to any public records request for public records, as that term is defined in Section 119.011, Fla. Stat., that are or may be or may contain Proprietary Information, each of which may be defended, settled or pursued by COUNTY with counsel of COUNTY's choice but at the expense of CONTRACTOR, including reasonable attorneys' fees and costs, including attorneys' fees and costs in litigation and on appeal incurred by or awarded against any Indemnitee or agreed upon by any Indemnitee as part of any settlement of any claim for attorney's fees and costs for failure to produce requested public records disclosed to an Indemnitee by CONTRACTOR.

18.4 In the event of the expiration or termination of this Agreement for any reason whatsoever, each Party shall return to the other Party Proprietary Information and other documents, work papers and other material (including all copies thereof) obtained from the other Party in connection with this Agreement, subject to Chapter 119 and other public records retention requirements set forth in Florida law.

**19. Requirement to E-Verify.** As a condition precedent to entering into this AGREEMENT, and in compliance with Section 448.095, Fla. Stat., Contractor and its subcontractors shall, register with and use the E-Verify system to verify work authorization status of all employees hired after January 1, 2021.

- A. Contractor shall require each of its subcontractors to provide Contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. Contractor shall maintain a copy of the subcontractor's affidavit as part of and pursuant to the records retention requirements of this AGREEMENT.

- B. The COUNTY, Contractor, or any subcontractor who has a good faith belief that a person or entity with which it is contracting has knowingly violated Section 448.09(1), Fla. Stat., or the provisions of this section shall terminate the contract with the person or entity.
- C. The COUNTY, upon good faith belief that a subcontractor knowingly violated the provisions of this section, but Contractor otherwise complied, shall promptly notify Contractor and Contractor shall immediately terminate the contract with the subcontractor.
- D. A contract terminated under the provisions of this section is not a breach of contract and may not be considered such. Any contract termination under the provisions of this section may be challenged pursuant to Section 448.095(2)(d), Fla. Stat. Contractor acknowledges that upon termination of this AGREEMENT by the COUNTY for a violation of this section by Contractor, Contractor may not be awarded a public contract for at least one (1) year. Contractor further acknowledges that Contractor is liable for any additional costs incurred by the COUNTY as a result of termination of any contract for a violation of this section.
- E. *Subcontracts.* Contractor or subcontractor shall insert in any subcontracts the clauses set forth in this section, including this subsection, requiring the subcontractors to include these clauses in any lower tier subcontracts. Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this section.

If there is a conflict between the terms of this Agreement and the above referenced documents, then the conflict shall resolved as follows: the terms of this Agreement shall prevail over the other documents, and the terms of the remaining documents shall be given preference in their above listed order.

IN WITNESS WHEREOF, the COUNTY and the CONTRACTOR have executed this Agreement as of the date first above written.



## BID SUBMITTAL CHECKLIST

In an effort to assist the Bidder in properly completing all documentation required, the following checklist is provided for the Bidder's convenience. **The Bidder is solely responsible for verifying compliance with bid submittal requirements.**

Please refer to Page #2 of the solicitation for a list of required documents. Failure to provide the forms/documentation listed may deem a bid "non-responsive" and be ineligible for contract award.

**NAME OF FIRM / BIDDER:** Brenntag Mid-South, Inc.

<b>Contract #:</b>	RFB2023-3527
<b>Contract Name:</b>	Chemicals for Water & Wastewater Treatment

CHECK BOX	DESCRIPTION / REQUIREMENT
<input checked="" type="checkbox"/>	Bid Submittal Checklist
<input checked="" type="checkbox"/>	Bid Form
<input checked="" type="checkbox"/>	Affidavit of compliance with the requirements of ANSI/AWWA B510-00 standard
<input checked="" type="checkbox"/>	Bidder's Qualification Statement
<input checked="" type="checkbox"/>	Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
<input checked="" type="checkbox"/>	Conflict Affidavit
<input checked="" type="checkbox"/>	Drug Free Workplace Certification
<input checked="" type="checkbox"/>	Equal Opportunity Statement
<input type="checkbox"/>	Local Vendor Preference ( <b>only return if eligible</b> ) Include copy of a business or contractor license and/or business tax receipt which verifies local address
<input checked="" type="checkbox"/>	Material Safety Data Sheets (MSDS)
<input checked="" type="checkbox"/>	Non-Collusion Certification
<input checked="" type="checkbox"/>	Product Specifications or Certificates of Analysis
<input checked="" type="checkbox"/>	Public Entity Crimes Statement
<input checked="" type="checkbox"/>	Vendor Certification Regarding Discriminatory Vendor List
<input checked="" type="checkbox"/>	Signed Addenda (if any)



## BIDDER'S QUALIFICATION STATEMENT

1. State the true, exact, correct and complete name of the partnership, corporation or trade name under which you do business. (If corporation, state the name of the president and secretary. If a partnership, state the name of all partners. If a trade name, state the name of the individuals who do business under the trade name).

\_\_\_\_\_ (Legal Name of Bidder)      **Brenntag Mid-South, Inc.**

- a) The business is a \_\_\_\_\_ (Insert form of business entity)      **Corporation**
- b) The address of the principal place of business is 250 Central Florida Parkway Orlando FL 32824-7601
- c) The names of the corporate officers, or partners, or individuals doing business under a trade name are as follows:

John T Hill - Director

Jaime Skinner - Secretary

John T Hill - President

Scott Lieboritz - Director

2. Name, title and email address of person that will sign the contract:

Name: **Sara Terry**

Title: **Municipal Contract Specialist**

Email Address: **bms-bids@brenntag.com**

3. Federal Employer ID (FEIN) #: 61-0504545
4. Unique Entity ID#: KV1CVPLVHFN1  
(created in SAM.gov)
5. State the number of years your business organization has been doing business under this name. 76 years
6. Have you ever failed to complete a contract awarded to you? If so, state where, when and why? N/A
7. Does your firm have any officer, owner, employee or agent who is also an officer, employee or advisory board member of Martin County? Yes  No

Section 112.313, Florida Statutes, prohibits contracts with County employees, officers and advisory board members. All vendors must disclose the name of any Martin County officer or employee who is employed by (Section 112.313(7), Florida Statutes) or owns, directly or indirectly an interest in the vendor's firm or any of its branches (Section 112.313 (3), Florida Statutes). Advisory Board Members, County officers or County employees may qualify for an exemption by including a completed Commission on



Ethics Form 3A with their submittal and filing such form with the Supervisor of Elections in accordance with Section 112.313(12)(b), Florida Statutes. Please contact the Purchasing Division for additional information.

8. Is your company a certified Disadvantaged Business, Minority Business Enterprise (MBE), Woman-Owned Business Enterprise (WBE) or Veteran Owned Business? N/A If yes, attach Certificate.
9. Are you a small business as defined by the SBA? Yes  No  If yes, number of employees \_\_\_\_\_ **and** provide certificate.
10. Has your organization been assessed any penalties for non-compliance violations of the Federal or State Labor laws and/or regulations within the last five (5) years?  
Yes  No   
If yes, explain:
11. Does your organization have any outstanding judgments, demands or liens resulting from violating the State Labor laws, the Business and Professions Regulation statutes, Civil or Criminal decisions?  
Yes  No   
If yes, explain:
12. Have there been any suits, liens or surety claims against you or your organization over the past five (5) years for non-payment of sums due subcontractors or suppliers for work completed?  
Yes  No   
If yes, explain:
13. Has your organization been cited for violations of OSHA standards and requirements within the past 5 years?  
Yes  No   
If yes, explain:
14. Are the Bidder, its principals or affiliates presently debarred, suspended, proposed for disbarment, declared ineligible or voluntarily excluded from participation in this transaction by any municipal, County, State, or Federal department or agency? Yes   
No   
If yes, explain:

Bidder must provide proof of a minimum of three (3) projects **(performed as the Prime Contractor)** similar to this scope of services within the last five (5) years:

Project Name: [Seacoast Utilities](#)  
Location: [4200 Hood Rd, Palm Beach Gardens, FL 33418](#)  
Description of Work: [Deliver water chemicals](#)  
Date of Contract: [2023-2024](#)  
Contract Award Amount: [\\$430,000.00](#)  
Contact Person: [Jessica Decker](#)  
Telephone Number: [561-627-2900](#)  
E-mail Address: [jdecker@sua.com](mailto:jdecker@sua.com)

Project Name: [Seminole Electric Co-Op](#)  
Location: [16313 N Dale Mabry Hwy, Tampa, FL 33688](#)  
Description of Work: [Deliver water chemicals](#)  
Date of Contract: [2023-2025](#)  
Contract Award Amount: [\\$590,000.00](#)  
Contact Person: [Haley Grandon](#)  
Telephone Number: [813-963-0994](#)  
E-mail Address: [hgrandon@seminol-electric.com](mailto:hgrandon@seminol-electric.com)

Project Name: [City of Punta Gorda](#)  
Location: [326 W Marion Ave, Punta Gorda, FL 33950](#)  
Description of Work: [Deliver water chemicals](#)  
Date of Contract: [2023-2024](#)  
Contract Award Amount: [\\$122,000.00](#)  
Contact Person: [Chelsey Rodgers](#)  
Telephone Number: [941-575-3396](#) [crodgers@cityofpuntafordafl.com](mailto:crodgers@cityofpuntafordafl.com)

**I certify that the above information is true and correct.**

[Sara Terry](#)

\_\_\_\_\_  
Name of Authorized Representative (Print)

[Municipal Contract Specialist](#)

\_\_\_\_\_  
Title

[61-0504545](#)

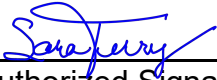
\_\_\_\_\_  
Federal Tax I.D. Number

[828-729-7557](#)

\_\_\_\_\_  
Phone Number

[bms-bids@brenntag.com](mailto:bms-bids@brenntag.com)

\_\_\_\_\_  
E-mail address



\_\_\_\_\_  
Authorized Signature



## CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

### *Lower Tier Covered Transactions*

The Respondent (bidder) certifies that, the firm or any person associated therewith in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, and/or position involving the administration of federal funds:

1. are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency; and
2. have not within a three-year period preceding this certification been convicted of or had a civil judgment rendered against it for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state, or local government transaction or public contract; violation of federal or state antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and
3. are not presently indicted for or otherwise criminally or civilly charged by a federal, state, or local governmental entity with commission of any of the offenses enumerated in paragraph (b) of this certification; and
4. have not within a three-year period preceding this certification had one or more federal, state, or local government public transactions terminated for cause or default.

The Respondent (bidder) certifies that it shall perform a debarment verification on any sub-contractor, sub-consultant, material supplier or vendor, that it proposes to contract with to perform any work under this RFB, and shall not enter into any transaction with any subcontractor, sub-consultant, material supplier, or vendor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this project by any federal agency unless authorized by Martin County Board of County Commissioners.

Firm Name: Brenntag Mid-South, Inc.

Name of Authorized Official: Sara Terry

Title of Authorized Official: Municipal Contract Specialist

Signature of Authorized Official: 

Date: 8/1/23

**CONFLICT AFFIDAVIT**

STATE OF (North Carolina)

COUNTY OF (Vance)

I, the undersigned, being first duly sworn, do hereby state under oath and under penalty of perjury that the following facts are true:

- 1. I am over the age of 18 and am a resident of the State of North Carolina.
- 2. I am the Municipal Contract Specialist (title) of Brenntag Mid-South, Inc. (Entity name) and I certify that I have the authority to make the representations set forth within this Affidavit.
- 3. Brenntag Mid-South, Inc. (Entity name) intends to do business with Martin County in response to:

RFB  RFP  RFQ #: 2023-3527

whereby business will be awarded under a system of sealed, competitive bidding to the lowest or best bidder.

- 4. I have reviewed Section 112.313(3) and (7), Florida Statutes; and pursuant to the provisions therein, Brenntag Mid-South, Inc. (Entity name) doing business with Martin County:

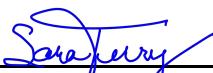
**DOES NOT** impact any public officer or employee of Martin County; or

**DOES IMPACT** a public officer or employee of Martin County

(Public Officer/Employee Name: Sara Terry); and

- 5. In compliance with Section 112.313(12), Florida Statutes, the impacted public officer or employee of Martin County, prior to the submission of this bid, has filed a statement with the Supervisor of Elections of Martin County, disclosing their interest, or the interest of their spouse or child, and the nature of the intended business, as set forth in Florida Commission on Ethics Form 3A, <http://www.ethics.state.fl.us/Documents/Forms/Form3A.pdf?cp=202058>.

Executed this 1 day of August, 2023.

By   
(Signature)

By Municipal Contract Specialist  
(Name and Title)

STATE OF (North Carolina)

COUNTY OF (Vance)

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization this 1 day of August, 2023, by Sara Terry (Name of Officer or Agent), as Municipal Contract Specialist (Title of Officer or Agent) of Brenntag Mid-South, Inc. (Name of Corporation Acknowledging) a Kentucky corporation (State or Place of Incorporation), on behalf of the corporation. He/She is  personally known to me or  has produced a driver's license issued within the past 5 years as identification.

NOTARY PUBLIC SEAL



Notary Public, State of North Carolina

Melissa Medlin Melissa Medlin  
(Printed, Typed or Stamped Name of Notary Public)



## DRUG FREE WORKPLACE CERTIFICATION

The undersigned Bidder/Contractor, in accordance with Florida Statute 287.087 hereby certifies that

Brenntag Mid-South, Inc. does:  
(Name of Business)


1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violation of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under this bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities, or contractual services that are under bid, the employee will abide by the terms of the statement, and will notify the employer of any conviction of, or plea of guilty, or *nolo contendere* to any violation of Chapter 1893, or of any controlled substance law of the United States, or any State, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance, or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Firm Name: Brenntag Mid-South, Inc.

Name of Authorized Official: Sara Terry

Title of Authorized Official: Municipal Contract Specialist

Signature of Authorized Official: 

Date: 8/1/23



## EQUAL OPPORTUNITY STATEMENT

The Respondent (Bidder) shall complete the following statement by signing this form where indicated.

Failure to complete this form may be grounds for rejection of bid:

1. The awarded Contractor shall comply with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987 and the Florida Civil Rights Act of 1992, as amended) prohibiting employment discrimination and shall comply with the regulations and guidelines promulgated pursuant to this Act by the Secretary of the Interior and the Heritage Conservation and Recreation Service.
2. During the performance of this contract, the awarded Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:
3. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
4. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
5. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
6. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
7. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

8. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
  
9. The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each sub-Contractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a Contractor becomes involved in, or is threatened with, litigation with a sub-Contractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Firm Name: Brenntag Mid-South, Inc.

Name of Authorized Official: Sara Terry

Title of Authorized Official: Municipal Contract Specialist

Signature of Authorized Official: 

Date: 8/1/23





N/A

**LOCAL VENDOR PREFERENCE  
CERTIFICATION STATEMENT**

(Complete and Return **ONLY** if Eligible)

Bid Number: \_\_\_\_\_

Bid Name: \_\_\_\_\_

Vendor agrees that it meets and will comply with all requirements of Section 135.7, Code of Ordinances, Martin County Code, included but not limited to:

1. Vendor has a fixed, staffed office or distribution point located in and having a street address within Martin County or St. Lucie County for at least one year prior to the issuance of this Request for Bid (RFB) and **attached is a copy of a business or contractor license and/or business tax receipt which verifies this**. Post Office boxes shall not be used or considered for the purpose of establishing a physical address; and
2. If awarded a contract, vendor will be the person or entity in direct contract with the County and not as a subcontractor, other lower tier subcontractor, materialman or supplier.

<b>Company Name (Print)</b>	
<b>Street Address (Print)</b>	
<b>Owners Name &amp; Title (Print)</b>	
<b>Authorized Signature</b>	

**FOR COUNTY USE ONLY**

Vendor meets all requirements of Section 135.7, Code of Ordinances, Martin County Code.

Certified by: \_\_\_\_\_

Date: \_\_\_\_\_



## NON-COLLUSION CERTIFICATION

I (we) hereby certify that if the contract is awarded to me, our firm, partnership or corporation, that no members of the elected governing body of Martin County nor any professional management, administrative official or employee of the County, nor members of his or her immediate family including spouse, parents or children, nor any person representing or purporting to represent any member or members of the elected governing body or other official, has solicited, has received or has been promised, directly or indirectly, any financial benefit including but not limited to a fee, commission, finder's fee, political contribution, goods or services in return for favorable review of any Proposals submitted in response to the Request for Proposal or in return for execution of a contract for performance or provision of services for which proposals are herein sought.

Firm Name: Brenntag Mid-South, Inc.

Name of Authorized Official: Sara Terry

Title of Authorized Official: Municipal Contract Specialist

Signature of Authorized Official: 

Date: 8/1/23

**SWORN STATEMENT UNDER SECTION 287.133 (3) (a), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES**

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted for Brenntag Mid-South, Inc.

2. This sworn statement is submitted by Sara Terry

Whose business address is: 250 Central Florida Parkway Orlando FL 32824-7601

and (if applicable) its Federal Employer Identification Number (FEIN) is: 61-0504545

(If entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: N/A

3. My name is Sara Terry and my relationship to the entity named above is Municipal Contract Specialist

4. I understand that a “public entity crime” as defined in Section 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

5. I understand that “convicted” or “conviction” as defined in Section 287.133 (1) (b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without adjudication of guilt, in any federal or state trial court of record, relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.

6. I understand that an “affiliate” as defined in Section 287.133(1) (a), Florida Statutes, means: (1) A predecessor or successor of a person convicted of a public entity crime; or (2) An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term “affiliate” includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm’s length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.


7. I understand that a “person” as defined in Section 287.133(1) (e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States

with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

8. Based on information and belief, that statement which I have marked below is true in relation to the entity submitting this sworn statement.

**[Please indicate which statement applies.]**

- Neither the entity submitting this sworn statement, nor one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity, has been charged with and convicted of public entity crime subsequent to July 1, 1989.
- There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. [Please attach a copy of the Final Order.]
- The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. [Please attach a copy of the Final Order.]
- The person or affiliate has not been placed on the convicted vendor list. [Please describe any action taken by or pending with the Department of General Services.]

Signature: 

Date: 8/1/23

STATE OF (North Carolina)

COUNTY OF (Vance)

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization this 1 day of August, 2023, by

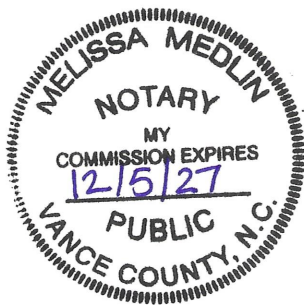
Sara Terry (Name of Officer or Agent), as

Municipal Contract Specialist (Title of Officer or Agent) of

Brenntag Mid-South, Inc. (Name of Corporation Acknowledging) a Kentucky

corporation (State or Place of Incorporation), on behalf of the corporation. He/She  personally known to me or  has produced a driver's license issued within the past 5 years as identification.

NOTARY PUBLIC SEAL



Notary Public, State of North Carolina

Melissa Medlin Melissa Medlin  
(Printed, Typed or Stamped Name of Notary Public)



Martin County Board of County Commissioners  
 Purchasing Division  
 2401 SE Monterey Road  
 Stuart, FL 34996  
 Phone: (772) 288-5400  
 pur\_div@martin.fl.us

## STATEMENT OF NO BID N/A

*In order to assist the Martin County Board of County Commissioners in evaluating and improving the solicitation process, bidders, suppliers, manufacturers, etc. are hereby requested to complete this form and return via mail or e-mail if applicable. By submitting this form, it will assist the County in evaluating all responses, improving our bid solicitation process, and maintaining a positive relationship with our vendors.*

We, the undersigned, have declined to bid for the following reason(s):

1.  No opportunity to meet with the agency before or during the bid process
2.  Our schedule would not permit us to perform
3.  Unable to meet specifications
4.  Insufficient time to respond to the Invitation to Bid
5.  We are unable to meet bond requirements
6.  Other (Explain)

\*BID NUMBER: \_\_\_\_\_

\*BID DESCRIPTION: \_\_\_\_\_

\*NAME OF FIRM: \_\_\_\_\_

\*BUSINESS ADDRESS: \_\_\_\_\_

\*CITY: \_\_\_\_\_ \*STATE: \_\_\_\_\_ \*ZIP: \_\_\_\_\_

\*PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

\*E-MAIL ADDRESS: \_\_\_\_\_

\*BY :( PRINTED NAME) \_\_\_\_\_

\*AUTHORIZED SIGNATURE: \_\_\_\_\_

\*TITLE: \_\_\_\_\_ \*DATE: \_\_\_\_\_

\*PLEASE LIST OTHER COMMENTS HERE:

This document may be reproduced upon request in an alternative format by contacting the County ADA Coordinator (772) 320-3131, the County Administration Office (772) 288-5400, Florida Relay 711, or by completing our accessibility feedback form at [www.martin.fl.us/accessibility-feedback](http://www.martin.fl.us/accessibility-feedback)



**VENDOR CERTIFICATION REGARDING  
DISCRIMINATORY VENDOR LIST**

Respondent Vendor Name: Brenntag Mid-South, Inc.

Vendor FEIN: 61-0504545

Vendor's Authorized Representative Name and Title: Sara Terry Municipal Contract Specialist

Address: 250 Central Florida Parkway

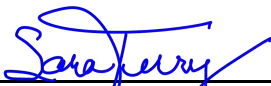
City, State, Zip: Orlando FL 32824

Phone Number: 828-729-7557

Email Address: bms-bids@brenntag.com

Section 287.134(3)(d), Florida Statutes, prohibits an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity." Section 287.134(2)(a), F.S.

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above in the section entitled "Respondent Vendor Name" is not listed on are on the Discriminatory Vendor List maintained by the Florida Department of Management Services pursuant to Section 287.134(3)(d), F.S.

Certified By:   
who is authorized to sign on behalf of the above referenced company.

Sara Terry Municipal Contract Specialist  
Print Name and Title

8/1/23  
Date



**MEMORANDUM**

**TO:** To Whom It May Concern  
**FROM:** JT Hill  
**DATE:** May 11, 2023  
**SUBJECT:** Authority to Sign

This is to advise that Sara Terry, in her capacity as Municipal Contract Specialist, has authority to sign Bid Documents on behalf of Brenntag Mid-South, Inc.

  
\_\_\_\_\_  
John T. Hill, President  
Brenntag Essentials Mid-South

State of Kentucky  
County of Henderson

Subscribed and sworn to before me by John T. Hill, personally known to me, on this the 5th day of May, 2023.

  
\_\_\_\_\_

Sandra L. Littrell, Notary Public

My Commission Expires: 1/22/26

Seal

BRENNTAG MID SOUTH, INC.  
 1405 Highway 136 West  
 Henderson, Kentucky 42420-0020  
 Tel. (270) 830-1200 • Fax (270) 826-1486

## CERTIFICATE OF ANALYSIS

### Caustic Soda 25% Membrane (Sodium Hydroxide Solution 25%)

<b>CUSTOMER:</b>	LOT NUMBER: 799514503040-01
PO# ACPO031797	DATE ANALYZED: 04/03/23
TANKER No: 50901	DATE SHIPPED: 04/03/23

PARAMETERS	ANALYSIS	SPECIFICATIONS
Specific Gravity @ 60° F	1.281	1.267 – 1.289
NaOH, Wt % by conversion	25.3	24 – 26%

<b>Analyst: Tyler Hill</b>	<b>Approved: Brian Debord</b>
----------------------------	-------------------------------

cc: With Shipment  
 Lab File

Direct questions concerning certification of this product to personnel at the location marked below.

- |   |              |   |              |
|---|--------------|---|--------------|
| <input type="checkbox"/> Chattanooga, TN  | 423-821-1535 | <input type="checkbox"/> Terre Haute, IN        | 812-234-7757 |
| <input type="checkbox"/> Henderson, KY    | 270-830-1258 | <input type="checkbox"/> Nitro, WV              | 304-755-8680 |
| <input type="checkbox"/> Orlando, FL      | 407-857-9310 | <input type="checkbox"/> St. Louis Chouteau, MO | 314-621-5155 |
| <input type="checkbox"/> St. Louis, MO    | 314-832-5010 | <input type="checkbox"/> Durham, NC             | 919-596-0681 |
| <input type="checkbox"/> Indianapolis, IN | 317-898-8632 | <input type="checkbox"/> Greensboro, NC         | 317-898-8632 |
| <input type="checkbox"/> Kansas City, MO  | 816-483-9996 |   |              |

Form Approval: James Clements  
 Form Approval Date: July 24, 2013

C:\RD1\WORD\COA\Caustic 25 membrane.DOC

"All information provided is believed to be accurate and complete. The data provided is representative of the product quality on the date of analysis for the lot number indicated. This certificate of analysis may not include all of the constituents of the product. Persons using this information should make their own determination regarding its suitability for their particular application. This certificate of analysis shall not in any way limit or preclude the operation and effect of the applicable terms and conditions of sale."



**BRENNTAG MID-SOUTH, INC.**  
 250 Central Florida Parkway  
 Orlando, Florida 32824  
 Phone: 407.857.9310 Fax: 407.851.3512

**CERTIFICATE OF ANALYSIS**

**SODIUM HYDROXIDE SOLUTION**

Caustic Soda 50% Commercial Grade

<b>CUSTOMER:</b>	<p align="center"><b>LOT NUMBER</b></p> <p>5G [ ] 306604 523208</p> <p>55G [ ] 234212 523208</p> <p>15G [ ] 579950 523208</p> <p>700# [ ] 755482 523208</p> <p>700# [ ] 696258 523208</p> <p>2200# [ ] 547922 523208</p> <p>2800# [ ] 817798 523208</p> <p>3000# [ ] 700807 523208</p> <p>3840# [ ] 900450 523208</p> <p>3400# [ ] 579961 523208</p> <p>MINI [ ] 151088 523208</p> <p>BULK [ ] 666745 523208</p>
<b>VENDOR:</b>	
<b>BATCH: 352963</b>	
<b>DATE RECEIVED: 07/27/23</b>	<b>DATE PACKAGED: 07/27/23</b>

PARAMETERS	ANALYSIS	SPECIFICATIONS
Assay, % NaOH *	<b>49.96</b>	49.0% – 51.0%
Na <sub>2</sub> O *	<b>38.77</b>	38.0% – 39.5%
Specific gravity @ 60°F *	<b>1.532</b>	1.511 – 1.549
Color *	<b>Pass</b>	Water-White
Appearance *	<b>Pass</b>	Clear Liquid, free of particles
NaCl, wt% *	<b>0.0019</b>	0.01 Max
Fe, ppm *	<b>1.5</b>	7.00 Max

\* Values obtained from vendor Certificate of Analysis and/or Product Technical Data

<b>Analyst:</b> <i>JABaldarrama</i>	<b>Approved:</b> <i>Todd Dial</i>
-------------------------------------	-----------------------------------

**Shelf Life:** Indefinite

**Pounds per gallon:** 12.7

*Certified by the National Sanitation Foundation (NSF) for the ANSI/NSF-60 Standard at a maximum use level in drinking water of 200 mg/L.*

Direct questions concerning certification of this product to personnel at the location marked below.

✘ Orlando, FL (407).857.9310

Format Issued: 02/01/06  
 Format Revised: 08/13/14  
 Format Approved: JABaldarrama

All information provided is believed to be accurate and complete. The data provided is representative of the product quality on the date of analysis for the lot number indicated. This certificate of analysis may not include all of the constituents of the product. Persons using this information should make their own determination regarding its suitability for their particular application. This certificate of analysis shall not in any way limit or preclude the operation and effect of the applicable terms and conditions of sale.



**DODHIA**  
CHEMTEX PVT. LTD.

TM

**DODHIA CHEM-TEX PRIVATE LIMITED**

CIN: U24233MH2005PTC152958

Corporate Office: Sr. No. 1001, 10 Floor, Felix Tower, Opp. Asian Paints, LBS Marg, Bhandup(w), Mumbai 400078, Maharashtra, INDIA.  
www.dodhiagroup.com / email: info@dodhiagroup.com Fax: 022-61166188 Tel No. 022-61166100

Date- 15-02-2023

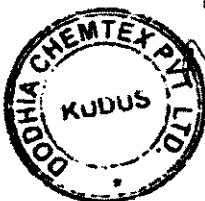
**CERTIFICATE OF ANALYSIS**

Customer P.O. No.	17789, DATE-03.01.2023
Invoice No.	222421000184, DATE. 15.02.2023
Product Name & Grade	"HI-CLEAR" CALCIUM HYPOCHLORITE -65% MIN
Molecular Weight	142.98 g/ml
UN No	2880
Lot No.	16-8/007
Packaging Size	45 X 311 DRUMS ON PALLETS
Drum No.	1-311
UN PACKING CODE :	1H2/Y 48/S/22 IND/171980080
Container No.	HLBU9322759
Date of Production	09-02-2023
Date of Expiry	08-02-2026
Country Of Origin	India
Name of Party	<b>UNITED MINERAL &amp; CHEMICAL CORP</b> 160 CHUBB AVENUE, SUITE 206, LYNDHURST, NJ 07071, USA. TEL: +201-507-3300/FAX: +201-507-1506
Melting Point	175 °C Decomposes
Solubility in Water	21- 22 gm/ 100 ml
Solubility in Alcohol	Reacts in alcohol

ANALYSIS RESULT		
Chemical Properties	Specification	Test Result
Available Chlorine Content (At the time of packaging)	65% MIN.	68%
Moisture	5.5 TO 10.0%	8.50%
Water Insoluble substance(as H2O)	3% Max.	1.80%
Calcium Chloride( as CaCl2)	3%Max	1.10%
Sodium Chloride ( as NaCl)	20%Max	12.00%
Calcium Carbonate( as CaCO3)	3%Max	1.30%
Calcium Hydroxide(as Ca(OH)2)	3%Max	1.00%
Aluminium Oxide (as Al2O3 )	1% Max	0.40%
<b>Physical Properties</b>		
Appearance	White Granules	Complies
Density	1.1 -1.3 gm/cc	1.110gm/cc
Particle size	Through U.S.14 Mesh Min.75.0%	79.00%
	Through U.S.100 Mesh Max.10.0%	7.00%
<b>STABILITY : ACTIVE INGREDIENT LOSS IS 10% MAXIMUM</b>		

For- DODHIA CHEMTEX PVT. LTD.

*AT*  
ANALYSED BY-  
AJAY TIWARI



*Narayan Sahu*  
QUALITY CONTROL INCHARGE  
NAME-NARAYAN SAHU



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www.dodhiagroup.com / email: info@dodhiagroup.com Fax: 022-61166188 Tel No. 022-61166100

Date- 15-02-2023

**CERTIFICATE OF ANALYSIS**

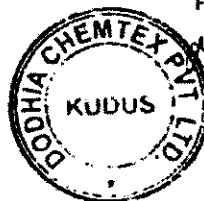
Customer P.O. No. 17789, DATE-03.01.2023  
 Invoice No. 222421000184, DATE. 15.02.2023  
 Product Name & Grade "HI-CLEAR" CALCIUM HYPOCHLORITE -65% MIN  
 Molecular Weight 142.98 g/ml  
 UN No 2880  
 Lot No. 16-B/007  
 Packaging Size 45 X 311 DRUMS ON PALLETS  
 Drum No. 312-622  
 UN PACKING CODE : 1H2/Y 48/5/22 IND/171980080  
 Container No. HLBU9315575  
 Date of Production 10.02.2023  
 Date of Expiry 09.02.2026  
 Country Of Origin India  
 Name of Party **UNITED MINERAL & CHEMICAL CORP**  
 160 CHUBB AVENUE, SUITE 206,  
 LYNDHURST, NJ 07071, USA.  
 TEL: +201-507-3300/FAX:+201-507-1506  
 Melting Point 175 °C Decomposes  
 Solubility in Water 21- 22 gm/ 100 ml  
 Solubility in Alcohol Reacts in alcohol

ANALYSIS RESULT		
Chemical Properties	Specification	Test Result
Available Chlorine Content (At the time of packaging)	65% MIN.	68%
Moisture	5.5 TO 10.0%	8.50%
Water Insoluble substance(as H2O)	3% Max.	1.80%
Calcium Chloride( as CaCl2)	3%Max	1.20%
Sodium Chloride ( as NaCl)	20%Max	12.00%
Calcium Carbonate( as CaCO3)	3%Max	1.20%
Calcium Hydroxide(as Ca(OH)2)	3%Max	1.00%
Aluminium Oxide (as Al2O3)	1% Max	0.53%
<b>Physical Properties</b>		
Appearance	White Granules	Complies
Density	1.1 -1.3 gm/cc	1.110gm/cc
Particle size	Through U.S.14 Mesh Min.75.0%	79.00%
	Through U.S.100 Mesh Max.10.0%	7.00%
<b>STABILITY : ACTIVE INGREDIENT LOSS IS 10% MAXIMUM</b>		

For- DODHIA CHEMTEX PVT. LTD.

30

ANALYSED BY-  
AJAY TIWARI



QUALITY CONTROL INCHARGE  
NAME-NARAYAN SAHU



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www.dodhiagroup.com / email: info@dodhiagroup.com Fax: 022-61166188 Tel No. 022-61166100

Date- 15-02-2023

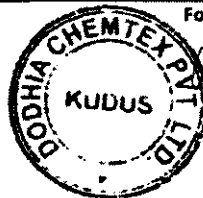
**CERTIFICATE OF ANALYSIS**

Customer P.O. No.	17789, DATE-03.01.2023
Invoice No.	222421000184, DATE. 15.02.2023
Product Name & Grade	"HI-CLEAR" CALCIUM HYPOCHLORITE -65% MIN
Molecular Weight	142.98 g/ml
UN No	2880
Lot No.	16-B/007
Packaging Size	45 X 311 DRUMS ON PALLETS
Drum No.	623-933
UN PACKING CODE :	1H2/Y 48/S/22 IND/171980080
Container No.	HLBU9630582
Date of Production	10.02.2023
Date of Expiry	09.02.2026
Country Of Origin	India
Name of Party	<b>UNITED MINERAL &amp; CHEMICAL CORP</b> 160 CHUBB AVENUE, SUITE 206, LYNDHURST, NJ 07071, USA. TEL: +201-507-3300/FAX:+201-507-1506
Melting Point	175 °C Decomposes
Solubility in Water	21- 22 gm/ 100 ml
Solubility in Alcohol	Reacts in alcohol

ANALYSIS RESULT		
Chemical Properties	Specification	Test Result
Available Chlorine Content (At the time of packaging)	65% MIN.	68%
Moisture	5.5 TO 10.0%	8.50%
Water Insoluble substance(as H2O)	3% Max.	1.60%
Calcium Chloride( as CaCl2)	3%Max	1.20%
Sodium Chloride ( as NaCl)	20%Max	11.00%
Calcium Carbonate( as CaCO3)	3%Max	1.20%
Calcium Hydroxide(as Ca(OH)2)	3%Max	1.00%
Aluminium Oxide (as Al2O3 )	1% Max	0.60%
<b>Physical Properties</b>		
Appearance	White Granules	Complies
Density	1.1 -1.3 gm/cc	1.110gm/cc
Particle size	Through U.S.14 Mesh Min.75.0%	79.00%
	Through U.S.100 Mesh Max.10.0%	7.00%
<b>STABILITY : ACTIVE INGREDIENT LOSS IS 10% MAXIMUM</b>		

For- DODHIA CHEMTEX PVT. LTD.

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CIN: U24233MH2005PTC152958

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www.dodhiagroup.com / email: info@dodhiagroup.com Fax: 022-61166188 Tel No. 022-61166100

Date- 15-02-2023

**CERTIFICATE OF ANALYSIS**

Customer P.O. No.	17789, DATE-03.01.2023
Invoice No.	222421000184, DATE. 15.02.2023
Product Name & Grade	"HI-CLEAR" CALCIUM HYPOCHLORITE -65% MIN
Molecular Weight	142.98 g/ml
UN No	2880
Lot No.	16-B/007
Packaging Size	45 X 311 DRUMS ON PALLETS
Drum No.	934-1244
UN PACKING CODE :	1H2/Y 48/S/22 IND/171980080
Container No.	HLXU8785273
Date of Production	11.02.2023
Date of Expiry	10.02.2026
Country Of Origin	India
Name of Party	<b>UNITED MINERAL &amp; CHEMICAL CORP</b> 160 CHUBB AVENUE, SUITE 206, LYNDHURST, NJ 07071, USA. TEL: +201-507-3300/FAX:+201-507-1506
Melting Point	175 °C Decomposes
Solubility in Water	21- 22 gm/ 100 ml
Solubility in Alcohol	Reacts in alcohol

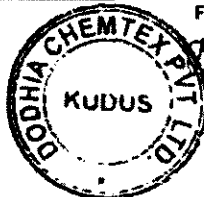
ANALYSIS RESULT		
Chemical Properties	Specification	Test Result
Available Chlorine Content (At the time of packaging)	65% MIN.	68%
Moisture	5.5 TO 10.0%	9.00%
Water Insoluble substance(as H2O)	3% Max.	2.30%
Calcium Chloride( as CaCl2)	3%Max	1.80%
Sodium Chloride ( as NaCl)	20%Max	13.00%
Calcium Carbonate( as CaCO3)	3%Max	1.20%
Calcium Hydroxide(as Ca(OH)2)	3%Max	1.60%
Aluminium Oxide (as Al2O3)	1% Max	0.80%
<b>Physical Properties</b>		
Appearance	White Granules	Complies
Density	1.1 -1.3 gm/cc	1.110gm/cc
Particle size	Through U.S. 14 Mesh Min.75.0%	79.00%
	Through U.S.100 Mesh Max.10.0%	7.00%

**STABILITY : ACTIVE INGREDIENT LOSS IS 10% MAXIMUM**

For- DODHIA CHEMTEX PVT. LTD.

*37*

ANALYSED BY-  
AJAY TIWARI



*Narayan Sahu*  
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Date- 15-02-2023

**CERTIFICATE OF ANALYSIS**

Customer P.O. No.	17789, DATE-03.01.2023
Invoice No.	222421000184, DATE. 15.02.2023
Product Name & Grade	"HI-CLEAR" CALCIUM HYPOCHLORITE -65% MIN
Molecular Weight	142.98 g/ml
UN No	2880
Lot No.	16-8/007
Packaging Size	45 X 311 DRUMS ON PALLETS
Drum No.	1245-1555
UN PACKING CODE :	1H2/Y 48/S/22 IND/171980080
Container No.	UACU4804690
Date of Production	11.02.2023
Date of Expiry	10.02.2026
Country Of Origin	India
Name of Party	<b>UNITED MINERAL &amp; CHEMICAL CORP</b> 160 CHUBB AVENUE, SUITE 206, LYNDHURST, NJ 07071, USA. TEL: +201-507-3300/FAX:+201-507-1506
Melting Point	175 °C Decomposes
Solubility in Water	21- 22 gm/ 100 ml
Solubility in Alcohol	Reacts in alcohol

**ANALYSIS RESULT**

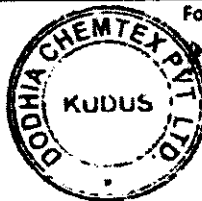
Chemical Properties	Specification	Test Result
Available Chlorine Content (At the time of packaging)	65% MIN.	68%
Moisture	5.5 TO 10.0%	9.00%
Water insoluble substance(as H2O)	3% Max.	2.30%
Calcium Chloride( as CaCl2)	3%Max	1.80%
Sodium Chloride ( as NaCl)	20%Max	13.00%
Calcium Carbonate( as CaCO3)	3%Max	1.20%
Calcium Hydroxide(as Ca(OH)2)	3%Max	1.50%
Aluminium Oxide (as Al2O3 )	1% Max	0.60%
<b>Physical Properties</b>		
Appearance	White Granules	Complies
Density	1.1 -1.3 gm/cc	1.110gm/cc
Particle size	Through U.S.14 Mesh Min.75.0%	79.00%
	Through U.S.100 Mesh Max.10.0%	7.00%

**STABILITY : ACTIVE INGREDIENT LOSS IS 10% MAXIMUM**

For- DODHIA CHEMTEX PVT. LTD.

*Signature*

ANALYSED BY-  
AJAY TIWARI



*Signature*

QUALITY CONTROL INCHARGE  
NAME-NARAYAN SAHU





## Quality Certificate of Analysis

BRENNTAG MID SOUTH  
3520 ADAMO DR  
TAMPA FL 33605

BRENNTAG MID-SOUTH, INC.  
ATTN: Accounts Payable  
P.O. BOX 20  
HENDERSON KY 42420

**Ship Date**  
06/07/2023  
**PO No.**  
338516  
**Order No.**  
2238195-000010  
**Customer number**  
21811  
**Plant:** Natrium  
**Customer Contact:**  
**Vessel Id:**

**Delivery Item.**  
85439528-900001  
**Shipment**  
20932321  
**Net Wt**  
38,880.000 LB

**Material:** W8004313 ACCUTAB SI 60 LB PAIL

**Batch:** D07327    **MFG DATE:**    **Package Qty:** 240 PL

Property	Unit	Value	Lower Limit	Upper Limit	Method
Available Chlorine	%wt	66.10	65.00	71.00	
Height	MM	33.5	32.5	34.7	
Moisture	%wt	7.2	5.5	8.5	
Weight	g	328.0	310.0	340.0	

### Material Sales Text

**Seal No:** 37758746

**NSF/ANSI/CAN 60 Drinking Water Treatment Chemicals**-This product is certified to NSF/ANSI/CAN Standard 60, Drinking Water Treatment Chemicals - Health Effects. The maximum use level for potable water is 15 mg/L.



Compliant to  
NSF/ANSI/CAN 60

*The test results herein are believed to be accurate but are laboratory tests based on limited sampling which do not necessarily simulate actual use conditions. The shipped goods are delivered in their present condition as is without warrant. NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES OF ANY KIND ARE MADE AND WESTLAKE SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR USE. Westlake shall not be liable for any use or handling of any material beyond Westlake's direct control.*

Date : 06/12/2023  
Time : 14:29:07

Required Signature

*Joe M<sup>c</sup>Mullen*

**CERTIFICATE OF TANK ANALYSIS**

PRODUCT CODE: 813540

TANKS: B20-3, B20-4, B206

PRODUCT IDENTITY: CHEM BLEACH

SYNONYMS: SODIUM HYPOCHLORITE 10%

TANK ANALYSIS DATE: July 31, 2023

TANK LOTS: 813540333212TANK

DRUM LOTS:

PHYSICAL PROPERTY	SPECIFICATIONS	RESULTS
Appearance	Greenish/Yellowish	PASS
Specific Gravity @ 60°F	1.15 min	PASS
Sodium Hypochlorite (wt%)	10.0 min	PASS
Available Chlorine (wt%)	10.22 min	PASS
Available Chlorine (g/L)	120 min	PASS
Excess Caustic (wt%)	0.20-1.0	PASS

QA/QC

**1. Identification**

**Other means of identification** None known.  
**Product identifier** **SODIUM HYDROXIDE 25% MEM**  
**Recommended use** ALL PROPER AND LEGAL PURPOSES  
**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

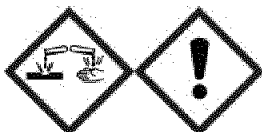
**Manufacturer**

**Company name** Brenntag Mid-South, Inc.  
**Address** 1405 Highway 136, West  
 Henderson, KY 42420  
**Telephone** 270-830-1222  
**E-mail** Not available.  
**Emergency phone number** 800-424-9300 CHEMTREC

**2. Hazard(s) identification**

**Physical hazards** Not classified.  
**Health hazards** Skin corrosion/irritation Category 1  
 Serious eye damage/eye irritation Category 1  
 Specific target organ toxicity, single exposure Category 3 respiratory tract irritation  
**Environmental hazards** Not classified.  
**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger  
**Hazard statement** Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

**Precautionary statement**

**Prevention** Do not breathe mist/vapors. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.  
**Response** If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.  
**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** 25% of the mixture consists of component(s) of unknown acute oral toxicity. 75% of the mixture consists of component(s) of unknown acute inhalation toxicity.

**3. Composition/information on ingredients**

**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
SODIUM HYDROXIDE (NA(OH))		1310-73-2	25
Other components below reportable levels			75

## 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	PEL	2 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

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

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

**Eye/face protection** Chemical respirator with organic vapor cartridge and full facepiece.

#### Skin protection

**Hand protection** Wear appropriate chemical resistant gloves.

**Other** Wear appropriate chemical resistant clothing.

**Respiratory protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Liquid.  
**Form** Liquid.  
**Color** CLEAR TO HAZY

**Odor** ODORLESS

**Odor threshold** Not available.

**pH** 14

**Melting point/freezing point** -1 °F (-18.33 °C)

**Initial boiling point and boiling range** 791.6 °F (422 °C) estimated

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	10.66 lbs/gal 1.28 g/ml
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>Percent volatile</b>	75 % estimated
<b>Specific gravity</b>	1.28

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong acids.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

### Information on toxicological effects

<b>Acute toxicity</b>	Not known.
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.

### Respiratory or skin sensitization

<b>Respiratory sensitization</b>	Due to partial or complete lack of data the classification is not possible.
<b>Skin sensitization</b>	Due to partial or complete lack of data the classification is not possible.
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Carcinogenicity</b>	Due to partial or complete lack of data the classification is not possible.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

## US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) 34.59 - 47.13 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis) 125 mg/l, 96 hours

<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

<b>UN number</b>	UN1824
<b>UN proper shipping name</b>	SODIUM HYDROXIDE SOLUTION
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>ERG number</b>	154

Transport information on packaging may be different from that listed. Transportation information on packaging may be different from that listed.

### IATA

<b>UN number</b>	UN1824
<b>UN proper shipping name</b>	SODIUM HYDROXIDE SOLUTION
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II

**Environmental hazards** No.  
**ERG Code** 154  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

**UN number** UN1824  
**UN proper shipping name** SODIUM HYDROXIDE SOLUTION (SODIUM HYDROXIDE (NA(OH)))  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** II  
**Environmental hazards**  
**Marine pollutant** No.  
**EmS** F-A, S-B  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### DOT



#### IATA; IMDG



## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### Toxic Substances Control Act (TSCA)

##### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2) Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Skin corrosion or irritation  
Serious eye damage or eye irritation  
Specific target organ toxicity (single or repeated exposure)



**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	05-10-2016
<b>Revision date</b>	07-27-2021
<b>Version #</b>	15
<b>HMIS® ratings</b>	Health: 3 Flammability: 0 Physical hazard: 0
<b>NFPA ratings</b>	Health: 3 Flammability: 0 Instability: 1
<b>Disclaimer</b>	While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

**1. Identification**

**Other means of identification** None known.  
**Product identifier** **SODIUM HYDROXIDE 50% DIA**  
**Recommended use** ALL PROPER AND LEGAL PURPOSES  
**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

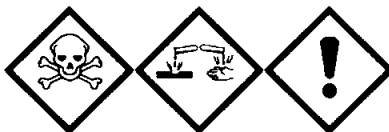
**Manufacturer**

**Company name** Brenntag Mid-South, Inc.  
**Address** 1405 Highway 136, West  
 Henderson, KY 42420  
**Telephone** 270-830-1222  
**E-mail** Not available.  
**Emergency phone number** 800-424-9300 CHEMTREC

**2. Hazard(s) identification**

**Physical hazards** Not classified.  
**Health hazards** Acute toxicity, oral Category 3  
 Skin corrosion/irritation Category 1  
 Serious eye damage/eye irritation Category 1  
 Specific target organ toxicity, single exposure Category 3 respiratory tract irritation  
**Environmental hazards** Not classified.  
**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger  
**Hazard statement** Toxic if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

**Precautionary statement**

**Prevention** Avoid breathing mist/vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.  
**Response** If swallowed: Immediately call a poison center/doctor. Rinse mouth. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information** None.

**3. Composition/information on ingredients**

**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
SODIUM HYDROXIDE (NA(OH))		1310-73-2	50 - 60

#### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid breathing mist/vapors. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	PEL	2 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

#### NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	IDLH	10 mg/m <sup>3</sup>

#### US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

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

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

**Eye/face protection** Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin protection

**Hand protection** Wear appropriate chemical resistant gloves.

**Other** Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection** Chemical respirator with organic vapor cartridge.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Liquid.

**Form** Liquid.

**Color** CLEAR

**Odor** ODORLESS

**Odor threshold** Not available.

**pH** 14  
14

**Melting point/freezing point** 41 °F (5 °C)

**Initial boiling point and boiling range** 1371.2 °F (744 °C) estimated

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

**Upper/lower flammability or explosive limits****Explosive limit - lower (%)** Not available.**Explosive limit - upper (%)** Not available.**Vapor pressure** Not available.**Vapor density** Not available.**Relative density** Not available.**Solubility(ies)****Solubility (water)** Not available.**Partition coefficient** Not available.**(n-octanol/water)****Auto-ignition temperature** Not available.**Decomposition temperature** Not available.**Viscosity** Not available.**Other information****Density** 12.76 lbs/gal  
1.53 g/ml**Explosive properties** Not explosive.**Oxidizing properties** Not oxidizing.**Percent volatile** 50 % estimated**Specific gravity** 1.53**10. Stability and reactivity****Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.**Chemical stability** Material is stable under normal conditions.**Possibility of hazardous reactions** Hazardous polymerization does not occur.**Conditions to avoid** Contact with incompatible materials.**Incompatible materials** Strong acids.**Hazardous decomposition products** No hazardous decomposition products are known.**11. Toxicological information****Information on likely routes of exposure****Inhalation** May cause irritation to the respiratory system. Prolonged inhalation may be harmful.**Skin contact** Causes severe skin burns.**Eye contact** Causes serious eye damage.**Ingestion** Toxic if swallowed. Causes digestive tract burns.**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.**Information on toxicological effects****Acute toxicity** In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Toxic if swallowed.

Product	Species	Test Results
SODIUM HYDROXIDE 50% DIA		
<b>Acute</b>		
<b>Dermal</b>		
ATEmix		2700 mg/kg bw
<b>Oral</b>		
ATEmix		280 mg/kg bw

Components	Species	Test Results
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	1350 mg/kg
<b>Oral</b>		
LD50	Rat	140 - 340 mg/kg
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Skin sensitization</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Carcinogenicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Not listed.		
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>		
Not listed.		
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>		
Not listed.		
<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.	
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful.	

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) 34.59 - 47.13 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis) 125 mg/l, 96 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.	
<b>Bioaccumulative potential</b>	No data available.	
<b>Mobility in soil</b>	No data available.	
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	

## 13. Disposal considerations

<b>Disposal instructions</b>	Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D002: Waste Corrosive material [pH ≤2 or ⇒12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. Transport information**

**DOT**

**UN number** UN1824  
**UN proper shipping name** SODIUM HYDROXIDE SOLUTION RQ  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** II  
**Environmental hazards**  
**Marine pollutant** No.

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
Transport information on packaging may be different from that listed. Transportation information on packaging may be different from that listed.

**DOT**



**15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Toxic Substances Control Act (TSCA)**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2) Listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Acute toxicity (any route of exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Specific target organ toxicity (single or repeated exposure)

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

**California Proposition 65**California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	05-04-2016
<b>Revision date</b>	07-27-2023
<b>Version #</b>	51
<b>HMIS® ratings</b>	Health: 3 Flammability: 0 Physical hazard: 0
<b>NFPA ratings</b>	Health: 3 Flammability: 0 Instability: 1
<b>Disclaimer</b>	While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.
<b>Revision information</b>	This document has undergone significant changes and should be reviewed in its entirety.



# SAFETY DATA SHEET



## SECTION 1 - IDENTIFICATION

**PRODUCT NAME:** HI-CLEAR™, EPA Reg. No. 92704-1

**MAUNUFACTURER:** **DODHIA CHEM-TEX PVT. LTD.**  
Office No. 1001, 10<sup>th</sup> Floor, Filix Tower, Mumbai – 400078, Maharashtra India

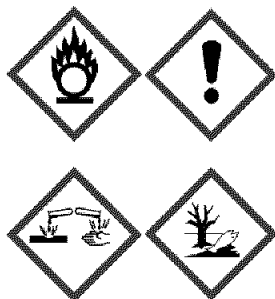
**DISTRIBUTOR:** **UNITED MINERAL & CHEMICAL CORPORATION**  
160 Chubb Ave, Ste. 206, Lyndhurst, NJ 07071  
Tel: 201-507-3300 ■ Fax: 201-507-1506 ■ E-Mail: inquiry@umccorp.com  
www.umccorp.com

**US D.O.T. / UN NAME:** UN 2880 CALCIUM HYPOCHLORITE, HYDRATED, 5.1, PG II

**RECOMMENDED USES:** WATER TREATMENT  
**USE RESTRICTIONS:** MIX ONLY WITH WATER

**EMERGENCY TELEPHONE NOS.:**  
USA – CHEMTREC: 1-800-424-9300  
OUTSIDE USA: +1 703-527-3887  
MEDICAL: POISON CENTER: 1-800-222-1222

## SECTION 2 – HAZARD IDENTIFICATION



### Hazards Identification

#### Classification of the substance or mixture

Classification according to REGULATION (EC) No 1272/2008 [CLP/GHS] and U.S. OSHA 1920.1200

- Oxidizing Solids Cat. 2, H272
- Acute Toxicity (oral) Cat. 4, H302, H336
- Skin Corrosion Cat. 1B, H314
- Specific Target Organ Toxicity, single exposure, Cat. 3 (inhalation) – Respiratory System H335
- Aquatic Toxicity Acute Cat.1, H400

#### Signal Word: Danger

- Symbols: GHS03, GHS05, GHS07, GHS09

#### Hazard phrases

- May intensify fire; oxidizer.
- Harmful if swallowed.
- Causes severe skin burns and eye damage.
- Very toxic to aquatic life.
- May cause respiratory irritation
- May cause drowsiness or dizziness
- Contact with acids liberates toxic gas (EUH 031)
- Warning! Do not use together with other products. May release dangerous gases (chlorine).

#### Precautionary Phrases

- Store locked up / do not store with combustibles / keep out of reach of children / keep container closed.
- Wash hands thoroughly after handling.
- Do not eat, drink, or smoke while using this product.
- Do not breathe dusts or mists. Use only outdoors or in well ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Keep away from heat, hot surfaces, open flames, sparks, and other ignition sources.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF INHALED – remove to fresh air and keep comfortable for breathing.
- IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Call a poison control center or doctor, if victim feels unwell.
- IF ON SKIN (or hair) – remove contaminated clothing. Rinse with water / shower.
- Wash contaminated clothing before re-use.
- IF exposed or concerned: Get medical advice/attention.
- Avoid release to the environment. Collect spillage.

#### Other hazards

- Marine pollutant

**DISPOSAL:** DISPOSE OF CONTENTS/CONTAINER IN ACCORDANCE WITH ALL LOCAL/ REGIONAL/ NATIONAL/ INTERNATIONAL REGULATIONS.

**OTHER HAZARDS / U.S. - HAZARDS NOT OTHERWISE CLASSIFIED / UN GHS - OTHER HAZARDS WHICH DO NOT RESULT IN CLASSIFICATION:**

NOTE THE FOLLOWING EFFECTS IF PROCESSING TO A DUST, MIST, OR FUME – MAY IRRITATE THE SKIN, NOSE, THROAT, AND RESPIRATORY SYSTEM.

**SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS**

CHEMICAL COMPOSITION:	COMPONENTS:	CAS NO.	%
	CALCIUM HYPOCHLORITE	7778-54-3	60-80
	SODIUM CHLORIDE	7647-14-5	10-20
	CALCIUM CHLORIDE	10043-52-4	0-5
	CALCIUM HYDROXIDE	1305-62-0	0-4
	CALCIUM CARBONATE	471-34-1	0-5
	CALCIUM CHLORATE	10137-74-3	0-5
	WATER (AS MOISTURE)	7732-16-5	5.5-10

**SECTION 4 – FIRST AID MEASURES**

FIRST AID/ RESPONSE	FIRST AID RESPONDERS SHOULD WEAR PERSONAL PROTECTIVE EQUIPMENT
<b>SKIN :</b>	IF ON SKIN: PROMPTLY WASH OFF WITH SOAP & WATER. REMOVE CONTAMINATED CLOTHING. GET MEDICAL ADVICE/ATTENTION IF IRRITATION OCCURS. WASH CONTAMINATED CLOTHING BEFORE REUSE.
<b>EYES :</b>	IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. GET MEDICAL ADVICE/ATTENTION IF IRRITATION OCCURS.
<b>INHALATION :</b>	IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. CALL A POISON CENTER OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL.
<b>INGESTION :</b>	IF SWALLOWED: RINSE MOUTH WITH WATER, THEN DRINK WATER TO DILUTE. INDUCE VOMITING ONLY UNDER THE DIRECTION OF MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH IF THE VICTIM IS UNCONSCIOUS. GET MEDICAL ADVICE/ATTENTION IF INGESTED IN QUANTITY OR IF EXPOSED PERSON FEELS UNWELL.

**MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED**  
 CONTACT WITH EYES MAY CAUSE IRRITATION AND SERIOUS EYE DAMAGE. CONTACT WITH SKIN MAY CAUSE IRRITATION. PROLONGED OR REPEATED OVEREXPOSURE MAY CAUSE DERMATITIS / SKIN SENSITIZATION. INHALATION OF DUST OR PROCESSING FUMES MAY CAUSE RESPIRATORY IRRITATION, MUCOUS SECRETION OR INFLAMMATION.

**INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY**  
 IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/ATTENTION

**SECTION 5 – FIRE FIGHTING MEASURES**

<b>SUITABLE EXTINGUISHING MEDIA :</b>	<b>WATER :</b> (x) <b>FOAM :</b> ( ) <b>CO<sub>2</sub>:</b> ( ) <b>DRY CHEMICAL:</b> ( ) DO NOT USE DRY EXTINGUISHERS CONTAINING AMMONIUM COMPOUNDS, SUCH AS DRY POWDER.
<b>SPECIFIC HAZARDS IN CASE OF FIRE :</b>	<b>SEE SECTION 10. EXPOSURE TO DECOMPOSITION PRODUCTS MAY CAUSE HAZARD TO HEALTH. PRODUCT IS OXIDIZING AND CORROSIVE.</b>
<b>SPECIAL PROTECTIVE EQUIPMENT &amp; PRECAUTION FOR FIRE FIGHTERS:</b>	IN CASE OF FIRE INVOLVING THIS MATERIAL, DO NOT ENTER THE FIRE AREA WITHOUT FULL PROTECTIVE GEAR/EQUIPMENT INCLUDING SELF-CONTAINED BREATHING APPARATUS.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS:** WEAR FULL PROTECTIVE EQUIPMENT (SEE SECTION 8). KEEP UNPROTECTED PERSONNEL OUT OF THE AREA. KEEP AWAY FROM HIGH HEAT AND ALL SOURCES OF IGNITION. CONTROL DUST CREATION AND CLOUD FORMATION TO PREVENT POSSIBLE DUST/AIR EXPLOSION HAZARD. PROPERLY GROUND ALL HANDLING/PROCESSING EQUIPMENT.

**ENVIRONMENTAL PRECAUTIONS:** AVOID RELEASE TO SEWERS AND THE ENVIRONMENT. DISPOSE OF PROPERLY VIA LICENSED CHEMICAL WASTEHAULER.

**METHODS AND MATERIAL FOR CONTAINMENT AND CLEAN UP:** VACUUM OR SCOOP INTO A PROPERLY LABELED CONTAINER AND SEAL. AVOID GENERATING DUST.

**SECTION 7 – HANDLING & STORAGE**

**PRECAUTIONS FOR SAFE HANDLING:** AVOID BREATHING DUST AND CONTACT WITH SKIN & EYES. WEAR FULL PROTECTIVE EQUIPMENT (SEE SECTION 8). USE WITH ADEQUATE VENTILATION. AVOID SCATTERING INTO THE AIR. AVOID RELEASE TO THE SEWER SYSTEM. EMPLOY GOOD HOUSEKEEPING TECHNIQUES TO CONTROL DUST BUILD-UP ON EQUIPMENT AND WORK AREA. AVOID DUSTING IN AREAS OF FLAME, SPARKS, & STATIC BUILDUP. PROPERLY GROUND PROCESSING / HANDLING EQUIPMENT. WASH THOROUGHLY AFTER HANDLING.

**CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:** STORE IN A SEALED CONTAINER IN A COOL, DRY, WELL-VENTILATED AREA. STORE AWAY FROM OTHER MATERIALS. KEEP ONLY IN ORIGINAL CONTAINERS.

**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

**CONTROL PARAMETERS:**

**EXPOSURE LIMITS:** U.S. OSHA PEL: NONE ESTABLISHED FOR PRODUCT  
 U.S. ACGIH TLV: Calcium Hydroxide, CAS RN: **1305-62-0** – 5 mg/cubic meter, TWA 8-hr, ACGIH

**APPROPRIATE ENGINEERING CONTROLS :** USE LOCAL / MECHANICAL EXHAUST

PROTECTIVE ACTION CRITERIA (PAC) REV. 27 – CHEMICALS WITH AEGL'S, ERPG'S, OR TEEL'S (FEB 2012)  
 CAS RN: **7778-54-3**

Name: Calcium hypochlorite; (Calcium oxychloride)  
 PAC-1 is: 2.8 mg/m3.  
 PAC-2 is: 31 mg/m3.  
 PAC-3 is: 170 mg/m3.  
 Unit: mg/m3 mg/m3.

**PERSONAL PROTECTIVE EQUIPMENT:**

**RESPIRATORY PROTECTION :** IF USING WITHOUT ADEQUATE VENTILATION, USE NIOSH APPROVED RESPIRATOR WITH SUITABLE CARTRIDGES PER OSHA RESPIRATORY STANDARD (20 CFR 1910.134).  
**HAND PROTECTION :** USE CHEMICAL RESISTANT GLOVES (RUBBER, PVC)  
**EYE PROTECTION :** SAFETY GOGGLES OR GLASSES WITH SIDE SHIELDS OR FULL FACE SHIELD; ACCESS TO AN EYEWASH FOUNTAIN  
**OTHER PROTECTIVE EQUIPMENT :** LABCOAT; COVERALLS TO PROTECT SKIN; ACCESS TO A SAFETY DRENCH SHOWER

**SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE :</b>	WHITE GRANULES	<b>FLAMMABLE LIMITS :</b>	LEL:& UEL: (N/A)
<b>ODOR:</b>	CHLORINE-LIKE	<b>VAPOR PRESSURE (mm Hg) :</b>	N/A
<b>ODOR THRESHOLD :</b>	N/A	<b>VAPOR DENSITY (AIR=1) :</b>	N/A
<b>pH (1% IN WATER) :</b>	10-12	<b>RELATIVE DENSITY/SPECIFIC GRAVITY :</b>	1.1 – 1.3 gr/cubic cm
<b>MELTING POINT / FREEZING POINT (°C) :</b>	180 C	<b>SOLUBILITY IN WATER (@20°C) :</b>	20 gr/L
<b>BOILING POINT (°C) :</b>	N/A	<b>PARTITION COEFFICIENT<sub>(n-OCTANOL/WATER)</sub> :</b>	NO DATA AVAILABLE
<b>FLASH POINT (°F) :</b>	N/A	<b>AUTO IGNITION TEMP. (°C) :</b>	N/A
<b>EVAPORATION RATE :</b>	NO DATA AVAILABLE	<b>DECOMPOSITION TEMP. :</b>	180 C
<b>FLAMMABILITY :</b>	NO DATA AVAILABLE	<b>VISCOSITY :</b>	N/A

**SECTION 10 – STABILITY AND REACTIVITY**

**CHEMICAL STABILITY :** STABLE WHEN STORED IN SEALED PACKAGE UNDER RECOMMENDED STORAGE CONDITIONS  
**POSSIBILITY OF HAZARDOUS REACTIONS :** **STRONG OXIDIZING AGENT. DO NOT MIX WITH OTHER SUBSTANCES. MAY RELEASE DANGEROUS BYPRODUCTS, SUCH AS CHLORINE GAS.**  
**CONDITIONS TO AVOID :** DO NOT HEAT ABOVE 180 C. OVERHEATING MAY CAUSE AN EXPLOSION. OVERHEATING CAUSES EXOTHERMIC REACTION. AVOID CONTACT WITH INCOMPATIBLES AND HIGH HEAT DUST IN VICINITY OF IGNITION SOURCES, ELECTRICAL OR SPARK GENERATING EQUIPMENT  
**INCOMPATIBLE MATERIALS :** ACIDS, ALKALIS, COMBUSTIBLE MATERIALS, FOODSTUFFS, REDUCING AGENTS, MOISTURE, ALUMINUM, ZINC, COPPER, TIN.  
**HAZARDOUS DECOMPOSITION PRODUCTS :** CONTACT WITH WATER MAY GENERATE EXPLOSIVE GASES. CONTACT WITH ACID GENERATES TOXIC GAS INCLUDING CHLORINE.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

**POTENTIAL HEALTH EFFECTS:**

**ROUTES OF EXPOSURE :** SKIN, EYES, INHALATION, INGESTION  
**SKIN, EYES, INHALATION, INGESTION :** CONTACT WITH EYES CAUSES SEVERE IRRITATION. CONTACT WITH SKIN CAUSES SEVERE IRRITATION AND BLISTERING. INHALATION OF DUST OR PROCESSING FUMES MAY CAUSE RESPIRATORY IRRITATION, MUCOUS SECRETION OR INFLAMMATION. INGESTION CAN CAUSE DAMAGE TO DIGESTIVE SYSTEM.  
**CHRONIC:** NONE KNOWN. IN SOME INDIVIDUALS PRONE TO SENSITIVITIES, PROLONGED OR REPEATED OVEREXPOSURE MAY CAUSE RESPIRATORY SENSITIZATION.  
**ACUTE TOXICITY :** LD50 (ORAL, RAT) 790-1260 MG/KG, (DERMAL, RAT) >2000 MG/KG  
 LC50 (INHALATION, RAT) 1 hr, 2.04 mg/L, 4 hr, 0.51 mg/L  
**SKIN CORROSION / IRRITATION :** CAUSES BURNING SENSATION  
**SERIOUS EYE DAMAGE / IRRITATION :** EYES (RABBIT) - CORROSIVE  
**RESPIRATORY OR SKIN SENSITIZATION :** CAUSES BURNING SENSATION AND DAMAGE TO MUCOUS MEMBRANES.  
**GERM CELL MUTAGENICITY :** AMES TEST – negative. CHROMOSOMAL ABERRATION TEST - negative  
**CARCINOGENICITY :** U.S. LISTED CARCINOGEN: NONE (X) OSHA () NTP () IARC () OTHER ()  
**REPRODUCTIVE TOXICITY :** NO TEST DATA AVAILABLE  
**SPECIFIC TARGET ORGAN TOXICITY :** Respiratory System – may cause irritation.  
**ASPIRATION HAZARD :** NO DATA AVAILABLE  
**INTERACTIVE EFFECTS:** MAY AGGRAVATE COLDS, RESPIRATORY ALLERGIES, SKIN DISORDERS

**SECTION 12 – ECOLOGICAL INFORMATION**

**ECOTOXICITY :** AVOID RELEASE TO THE ENVIRONMENT AS THIS PRODUCT IS MARINE POLLUTANT. HIGHLY TOXIC TO FISH AND MARINE ORGANISMS.  
**LC 50 (BLUEGILL FISH) 0.088 MG/L (96 HR), (RAINBOW TROUT) 0.16 MG/L (96 HR)**  
**LC 50 (DAPHNIA MAGNA) 0.11 MG/L (48 HR)**  
**TOXICITY - AQUATIC :** MARINE POLLUTANT  
**TOXICITY TO DAPHNIA :** MARINE POLLUTANT  
**TOXICITY - TERRESTIAL :** NO TEST DATA AVAILABLE  
**PERSISTENCE & DEGRADABILITY:** NO TEST DATA AVAILABLE  
**BIOACCUMULATIVE POTENTIAL :** NO TEST DATA AVAILABLE  
**MOBILITY IN SOIL :** MARINE POLLUTANT  
**OTHER ADVERSE EFFECTS :** NO DATA AVAILABLE

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**DISPOSAL METHODS:**

DISPOSE OF CONTENTS / CONTAINER IN ACCORDANCE WITH LOCAL, REGIONAL, NATIONAL, INTERNATIONAL REGULATIONS. DISPOSE OF IN SEALED CONTAINERS, USING A LICENSED CHEMICAL WASTE HAULER. DO NOT REUSE EMPTY CONTAINERS.

**SECTION 14 – TRANSPORT INFORMATION**

**BY ROAD OR RAIL - U.S. D.O.T. REGULATED:** YES (X) NO () **RQ: (10 lbs)**

IF REGULATED, UN PROPER SHIPPING NAME: CALCIUM HYPOCHLORITE, HYDRATED MIXTURES

HAZARD CLASS: ()

UN IDENTIFICATION NO.: (UN 2880, 5.1,II)

U.S. MARINE POLLUTANT: YES (X) NO ()

EMERGENCY RESPONSE GUIDE NO.: (140)

PACKING GROUP: (II)

SEVERE U.S. MARINE POLLUTANT: YES () NO (X)

EMERGENCY RESPONSE GUIDE NO.: (140)



Hazard Class: 5.1  
 DOT Identification: UN 2880  
 Packing Group: II  
 Hazard Label: 5.1  
 Special Requirements: 165,IB8,IP2,IP4,IP13,W9  
 Exceptions: 152  
 Non-Bulk Requirements: 212  
 Bulk Requirements: 240  
 Max. Passgr. Air/Rail: 5 kg  
 Max. Cargo Only Air/Rail: 25 kg  
 Stowage: D  
 Other Requirements: 4,25,52,56,58,69,142

**BY SEA - IMDG REGULATED: YES (X) NO ()**  
**BY AIR - IATA REGULATED: YES (X) NO ()**

**SPECIAL PRECAUTIONS:** READ SDS BEFORE HANDLING

**SECTION 15 – REGULATORY INFORMATION**

**U.S. TSCA:** WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE TSCA LISTED

<b>U.S. SARA TITLE III, SECT. 313 :</b>	<b>LISTED ( )</b>	<b>NOT LISTED (X)</b>	
<b>U.S. RCRA HAZARDOUS WASTE :</b>	<b>NO (X)</b>	<b>YES ( )</b>	<b>RCRA # : ( )</b>
<b>U.S. CERCLA :</b>	<b>NO ( )</b>	<b>YES (X)</b>	<b>RQ (10 LB)</b>
<b>U.S. CALIFORNIA PROPOSITION 65 LISTED :</b>	<b>YES ( )</b>	<b>NO (X)</b>	

**HMS:** HEALTH (3) FLAMMABILITY (0) REACTIVITY (1)

**FIFRA STATEMENT**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under Federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**PRECAUTIONARY STATEMENTS****Hazards to Humans and Domestic Animals**

**DANGER:** Corrosive. Causes irreversible eye damage and skin burns. Fatal if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Wear long-sleeved shirt, long pants, goggles or face shield and rubber gloves when handling this product. Irritating to nose and throat. Avoid breathing dust. Thoroughly wash with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**Environmental Hazards**

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System ("NPDES") permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this

product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or the Regional Office of the U.S. EPA.

**Physical or Chemical Hazards**

**Strong Oxidizing Agent.** Mix only with water. Add product to water; **do not** add water to product. Use clean, dry utensils. Do not add this product to any dispensing device containing remnants of any other product; such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic matter or other chemicals will start a chemical reaction and generate heat, chlorine gas and possible fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well ventilated area then flood area with large volumes of water if necessary.

**SECTION 16 – OTHER INFORMATION**

**REVISION DATE:** JUNE 1, 2018

**PREPARED BY:** EHSA COORDINATOR / UNITED MINERAL & CHEMICAL CORP.

**ABBREVIATIONS / ACRONYMS:**

**N/A**=NOT APPLICABLE; **LEL**=LOWER EXPLOSION LIMIT; **UEL**=UPPER EXPLOSION LIMIT;  
**PEL**=PERMISSIBLE EXPOSURE LIMIT; **STEL**=SHORT TERM EXPOSURE LIMIT; **TLV**=THRESHOLD LIMIT VALUE; **TWA**=TIME WEIGHTED AVERAGE OVER 8 HOUR WORKDAY; **LD<sub>50</sub>** OR **LC<sub>50</sub>**=LETHAL DOSE OR LETHAL CONCENTRATION THAT KILLS 50% OF DOSED GROUP; **mg**=MILLIGRAM; **g**=GRAM;  
**kg**=KILOGRAM; **PPM**=PARTS PER MILLION; **m**=METER; **LOAEL**=LOWEST OBSERVED ADVERSE EFFECT LEVEL; **C.I.**=COLOUR INDEX

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL HYGIENE, HANDLE WITH DUE CARE AND AVOID ANY UNNECESSARY CONTACT WITH THIS PRODUCT. USE RECOMMENDED PERSONAL PROTECTION WHEN HANDLING (SEE SECTION 8).

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS PRODUCT SPECIFICATION. THE INFORMATION IS BELIEVED TO BE TRUE AND ACCURATE. NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARD CONNECTED WITH USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. UNITED MINERAL & CHEMICAL CORPORATION AND ITS SUPPLIERS ASSUME NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

UNITED MINERAL & CHEMICAL CORPORATION



## Safety Data Sheet

### Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1 Product identifier

##### Product Name

- **Calcium Hypochlorite Tablets**

##### Synonyms

- 7000; Accu-Tab® SI Calcium Hypochlorite Tablets; Accu-Tab® Wastewater Tablets; Aquabalance Blue SI Calcium Hypochlorite Tablets; Aquaward® Tablets; Bio-Sanitizer; Blue Crystal; C2180T; Ca(OCl)<sub>2</sub>. Accu-Tab® Blue Calcium Hypochlorite Tablets; Cal Hypo Tablets; Indutabs™; Jet-Chlor; Pittabs™; PML Pool Management Line Calcium Hypochlorite Tablets; Power Pro Tabs™; Repak™ Tabs; Sanuril® Tablets; Sustain® 3" Chlorinating Tablets; Sustain® Shield Energizer; VersaChlor™ System Chlorinating Tablets; Accu-Tab® Calcium Hypochlorite Tablets; Incredipool™

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s) • Industrial Application, Chlorine Disinfectant, Pool Chemicals

#### 1.3 Details of the supplier of the safety data sheet

##### Manufacturer

- Axiall, LLC  
2801 Post Oak Blvd., Suite 600  
Houston, TX 77056  
United States  
www.westlake.com  
SDSinfo@westlake.com

Telephone (General) • +1 713-960-9111

#### 1.4 Emergency telephone number

##### Manufacturer

- +1 304-455-6882

### Section 2: Hazards Identification

#### EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

#### 2.1 Classification of the substance or mixture

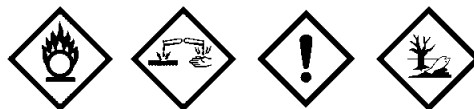
##### CLP

- Oxidizing Solids 2 - H272  
Acute Toxicity Oral 4 - H302  
Skin Corrosion 1B - H314  
Serious Eye Damage 1 - H318  
Hazardous to the aquatic environment Acute 1 - H400

#### 2.2 Label Elements

##### CLP

**DANGER**



- Hazard statements** • H272 - May intensify fire; oxidizer  
 H302 - Harmful if swallowed  
 H314 - Causes severe skin burns and eye damage.  
 H318 - Causes serious eye damage  
 H400 - Very toxic to aquatic life

### Precautionary statements

- Prevention** • P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P220 - Keep/Store away from clothing and other combustible materials.  
 P221 - Take any precaution to avoid mixing with combustibles  
 P260 - Do not breathe dust.  
 P264 - Wash thoroughly after handling.  
 P270 - Do not eat, drink or smoke when using this product.  
 P273 - Avoid release to the environment.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • P370+P378 - In case of fire: Use appropriate media for extinction.  
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P363 - Wash contaminated clothing before reuse.  
 P321 - Specific treatment, see supplemental first aid information.  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P310 - Immediately call a POISON CENTER or doctor/physician.  
 P391 - Collect spillage.
- Storage/Disposal** • P405 - Store locked up.  
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information** • 1-3 percent of this product consists of an ingredient of unknown toxicity.

### 2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

## UN GHS Revision 3

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Third Revised Edition

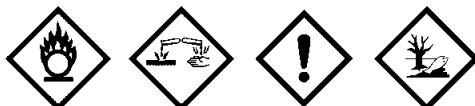
### 2.1 Classification of the substance or mixture

- UN GHS**
- Oxidizing Solids 2
  - Acute Toxicity Oral 4
  - Skin Corrosion 1B
  - Serious Eye Damage 1
  - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
  - Hazardous to the aquatic environment Acute 1
  - Hazardous to the aquatic environment Chronic 1

### 2.2 Label elements

**UN GHS**

**DANGER**



- Hazard statements** • May intensify fire; oxidizer  
 Harmful if swallowed

Causes severe skin burns and eye damage.  
 Causes serious eye damage  
 May cause respiratory irritation  
 Very toxic to aquatic life  
 Very toxic to aquatic life with long lasting effects

## Precautionary statements

- Prevention** • Keep away from heat.  
 Keep/Store away from clothing and other combustible materials.  
 Do not eat, drink or smoke when using this product.  
 Take any precaution to avoid mixing with combustibles  
 Use only outdoors or in a well-ventilated area.  
 Do not breathe dust.  
 Wash thoroughly after handling.  
 Avoid release to the environment.  
 Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • In case of fire: Use appropriate media for extinction.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 Call a POISON CENTER or doctor/physician if you feel unwell.  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 Wash contaminated clothing before reuse.  
 Specific treatment, see supplemental first aid information.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 Immediately call a POISON CENTER or doctor/physician.  
 Collect spillage.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.  
 Store locked up.  
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Supplemental information** • 1-3 percent of this product consists of an ingredient of unknown toxicity.

## 2.3 Other hazards

- UN GHS** • According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous

## United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

### 2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Oxidizing Solids 2
  - Acute Toxicity Oral 4
  - Skin Corrosion 1B
  - Serious Eye Damage 1
  - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

### 2.2 Label elements

**OSHA HCS 2012**

**DANGER**



- Hazard statements** • May intensify fire; oxidizer  
 Harmful if swallowed  
 Causes severe skin burns and eye damage.



Causes serious eye damage  
May cause respiratory irritation

## Precautionary statements

- Prevention** • Keep away from heat.  
Keep/Store away from clothing and other combustible materials.  
Take any precaution to avoid mixing with combustibles  
Do not breathe dust.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.

- Response** • In case of fire: Use appropriate media for extinction.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Wash contaminated clothing before reuse.  
Specific treatment, see supplemental first aid information.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
Immediately call a POISON CENTER or doctor/physician.

- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information** • 1-3 percent of this product consists of an ingredient of unknown toxicity.

## 2.3 Other hazards

### OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

## Canada

According to: WHMIS 2015

## 2.1 Classification of the substance or mixture

### WHMIS 2015

- Oxidizing Solids 2  
Acute Toxicity Oral 4  
Skin Corrosion 1B  
Serious Eye Damage 1  
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

## 2.2 Label elements

### WHMIS 2015

### DANGER



- Hazard statements** • May intensify fire; oxidizer  
Harmful if swallowed  
Causes severe skin burns and eye damage.  
Causes serious eye damage  
May cause respiratory irritation

## Precautionary statements

- Prevention** • Keep away from heat

Take any precaution to avoid mixing with combustibles  
 Keep away from clothing and other combustible materials.  
 Do not breathe dust.  
 Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Wear fire resistant or flame retardant clothing.

- Response** • In case of fire: Use appropriate media to extinguish.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 Call a POISON CENTER/doctor if you feel unwell.  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 Wash contaminated clothing before reuse.  
 Specific treatment, see supplemental first aid information.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 Immediately call a POISON CENTER/doctor/ physician.  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.  
 Store locked up.  
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information** • 1-3 percent of this product consists of an ingredient of unknown toxicity.

## 2.3 Other hazards

### WHMIS 2015

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

## Section 3 - Composition/Information on Ingredients

### 3.1 Substances

- Material does not meet the criteria of a substance.

### 3.2 Mixtures

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Calcium hypochlorite	CAS:7778-54-3 EC Number:231-908-7 EU Index:017-012-00-7	65% TO 76%	NDA	EU CLP: Annex VI, Table 3.1: Ox. Sol. 2, H272; Acute Tox. 4 *, H302; Skin Corr. 1B, H314; Aquatic Acute 1, H400 UN GHS Revision 3: Ox. Sol. 2; Skin Corr. 1B; Eye Dam. 1; Acute Tox. 4 (orl); STOT SE 3: Resp. Irrit; Aquatic Acute 1; Aquatic Chronic 1 OSHA HCS 2012: Ox. Sol. 2; Skin Corr. 1B; Eye Dam. 1; Acute Tox. 4 (orl); STOT SE 3: Resp. Irrit. WHMIS 2015: Ox. Sol. 2; Skin Corr. 1B; Eye Dam. 1; Acute Tox. 4 (orl); STOT SE 3: Resp. Irrit.
Sodium chloride	CAS:7647-14-5 EC Number:231-598-3	10% TO 30%	Ingestion/Oral-Rat LD50 • 3000 mg/kg	EU CLP: Eye Irrit 2, H319 UN GHS Revision 3: Eye Irrit. 2; Acute Tox. 5 (orl); Skin Irrit. 3 OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2
Calcium hydroxide	CAS:1305-62-0 EC Number:215-137-3	1% TO 3%	Ingestion/Oral-Rat LD50 • 7340 mg/kg	EU CLP: Eye Dam. 1 H318; Skin Corr. 1. H314; Aquatic Chronic 3, H412 UN GHS Revision 3: Eye Dam. 1; Skin Corr. 1; OSHA HCS 2012: Eye Dam. 1; Skin Corr. 1

				<b>WHMIS 2015:</b> Eye Dam. 1; Skin Corr. 1
Calcium chlorate	<b>CAS:</b> 10137-74-3 <b>EINECS:</b> 233-378-2	0% TO 3%	NDA	<b>EU CLP:</b> Ox. Sol. 2, H272 <b>UN GHS Revision 3:</b> Ox. Sol. 2 <b>OSHA HCS 2012:</b> Ox. Sol. 2 <b>WHMIS 2015:</b> Ox. Sol. 2
Calcium carbonate	<b>CAS:</b> 471-34-1 <b>EC Number:</b> 207-439-9	1% TO 3%	Ingestion/Oral-Rat LD50 • 6450 mg/kg	<b>EU CLP:</b> Skin Irrit. 2, H315; Eye Irrit. 2, H319 <b>UN GHS Revision 3:</b> Eye Irrit. 2; Skin Irrit. 2 <b>OSHA HCS 2012:</b> Eye Irrit. 2; Skin Irrit. 2 <b>WHMIS 2015:</b> Eye Irrit. 2; Skin Irrit. 2
Pentasodium triphosphate	<b>CAS:</b> 7758-29-4 <b>EC Number:</b> 231-838-7	< 1%	Ingestion/Oral-Rat LD50 • 3120 mg/kg Skin-Rabbit LD50 • >4640 mg/kg	<b>EU CLP:</b> Skin Irrit. 2, H315 <b>UN GHS Revision 3:</b> Skin Irrit. 2; Acute Tox. 5 (orl) <b>OSHA HCS 2012:</b> Skin Irrit. 2 <b>WHMIS 2015:</b> Skin Irrit. 2
Calcium chloride	<b>CAS:</b> 10043-52-4 <b>EC Number:</b> 233-140-8 <b>EU Index:</b> 017-013-00-2	0.1%	Ingestion/Oral-Rat LD50 • 1 g/kg	<b>EU CLP:</b> Annex VI, Table 3.1: Eye Irrit. 2, H319 <b>UN GHS Revision 3:</b> Eye Irrit. 2; Acute Tox. 4 (orl); <b>OSHA HCS 2012:</b> Eye Irrit. 2; Acute Tox. 4 (orl); <b>WHMIS 2015:</b> Eye Irrit. 2; Acute Tox. 4 (orl)

See Section 16 for full text of H-statements.

## Section 4 - First Aid Measures

### 4.1 Description of first aid measures

#### Inhalation

- Move victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a poison control center or doctor for further treatment advice.

#### Skin

- For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Call a poison center or doctor for treatment advice.

#### Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a Poison Control Center or doctor for treatment advice.

#### Ingestion

- If swallowed, seek medical attention immediately from poison control center or doctor. Have a person sip a glass of water, if able to swallow. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless told to do so by the poison control center or doctor.

### 4.2 Most important symptoms and effects, both acute and delayed

- If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during, or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person. Refer to Section 11 - Toxicological Information.

### 4.3 Indication of any immediate medical attention and special treatment needed

#### Notes to Physician

- Probable mucosal damage may contraindicate the use of gastric lavage. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## Section 5 - Firefighting Measures

## 5.1 Extinguishing media

**Suitable Extinguishing Media** • Drench with large quantities of water only.

**Unsuitable Extinguishing Media** • Do not use dry chemicals or foams. Product supplies own oxygen, therefore attempts to smother fire with a wet blanket, carbon dioxide, dry chemical extinguisher or other means are not effective. Product has the potential to cause a violent reaction if dry chemical fire extinguishers are used.

## 5.2 Special hazards arising from the substance or mixture

**Unusual Fire and Explosion Hazards** • Containers may explode when heated.  
May explode from heat or contamination.  
May ignite combustibles (wood, paper, oil, clothing, etc.)  
Runoff may create fire or explosion hazard.  
Some will react explosively with hydrocarbons (fuels)  
These substances will accelerate burning when involved in a fire.  
Emits toxic fumes under fire conditions.  
Chlorine gas may be generated.

**Hazardous Combustion Products** • Decomposition products may include the following materials: carbon oxides; halogenated compounds; metal oxide/oxides.

## 5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.  
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.  
Wear positive pressure self-contained breathing apparatus (SCBA).  
SMALL FIRES: Move containers from fire area if you can do it without risk.  
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.  
No action shall be taken involving any personal risk or without suitable training.  
This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**Personal Precautions** • Use extreme caution in handling spilled material. Ventilate the area before entry. Use spark-proof tools and explosion-proof equipment. Do not walk through spilled material. Do not mix this product with any other chemicals, including any other pool chemicals of any kind, such as other disinfection or "shock" pool products. Contamination with moisture, acids, organic matter, other chemicals (including, but not limited to cleaning chemicals and other pool chemicals), petroleum or paint products or other easily combustible materials may start a chemical reaction with generation of heat, liberation of hazardous gases and possible violent reaction leading to fire or explosion. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Emergency Procedures** • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Do not get water inside container.

### 6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

### 6.3 Methods and material for containment and cleaning up

**Containment/Clean-up Measures** • Avoid generating dust.  
If fire or decomposition occurs in area of spill, immediately douse with plenty of water. Otherwise, sweep up all visible material using a clean (new, if possible), dry shovel and broom and immediately dissolve material in a water-filled container.

Spilled material that has been swept up and dissolved in water should be used immediately in the normal application for which this product is being consumed.

## 6.4 Reference to other sections

- Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7 - Handling and Storage

### 7.1 Precautions for safe handling

#### Handling

- Use extreme caution in handling spilled material. Use only with adequate ventilation. Keep away from combustible material. Strong oxidizer. Contact with other material may cause fire. Use spark-proof tools and explosion-proof equipment. Do not mix this product with any other chemicals, including any other pool chemicals of any kind, such as other disinfection or "shock" pool products. Contamination with moisture, acids, organic matter, other chemicals (including, but not limited to cleaning chemicals and other pool chemicals), petroleum or paint products or other easily combustible materials may start a chemical reaction with generation of heat, liberation of hazardous gases and possible violent reaction leading to fire or explosion. Always add product to large quantities of water to fully dissolve product. Do not pour water into product, always add product to water. Use only a clean (new, if possible), dry scoop made of metal or plastic each time product is taken from the container. Do not use with stabilized chlorine or bromine tablet chemical feeders. Do not add this product to any dispensing device containing remnants of any other product or pool chemical. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not ingest. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Empty containers retain product residue and can be hazardous. Do not reuse container. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

- Ventilate enclosed areas. Keep only in the original container. Keep container closed. Separate from acids, alkalis, reducing agents and combustibles. Product is an NFPA Class 3 oxidizer which can cause a severe increase in fire intensity. Store in a cool, dry, well-ventilated place. If product becomes contaminated or decomposes do not reseal container. If possible isolate container in open air or well-ventilated area.

### 7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

## Section 8 - Exposure Controls/Personal Protection

### 8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Ontario	Canada Quebec	NIOSH
C.I. Pigment Blue 15	TWAs	1 mg/m <sup>3</sup> TWA (dust and mist, as Cu) <i>as Copper compounds</i>	Not established	Not established	Not established	1 mg/m <sup>3</sup> TWA (dust and mist, as Cu) <i>as Copper compounds</i>
Calcium chloride (10043-52-4)	TWAs	Not established	Not established	5 mg/m <sup>3</sup> TWA	Not established	Not established
Calcium hydroxide (1305-62-0)	TWAs	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWAEV	5 mg/m <sup>3</sup> TWA

Calcium carbonate (471-34-1)	TWAs	Not established	Not established	Not established	10 mg/m <sup>3</sup> TWAEV (total dust)	10 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable dust)
Exposure Limits/Guidelines (Con't.)						
		Result		OSHA		
Calcium hydroxide (1305-62-0)		TWAs		15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)		

## 8.2 Exposure controls

### Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

### Personal Protective Equipment

#### Respiratory

- If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

#### Eye/Face

- Wear chemical splash goggles and face shield.

#### Skin/Body

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. HANDS: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. GLOVES: Nitrile, neoprene, and butyl rubber.

### Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

#### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

NIOSH = National Institute of Occupational Safety and Health

TWAEV = Time-Weighted Average Exposure Value

OSHA = Occupational Safety and Health Administration

## Section 9 - Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Various colored solid (tablets) with a slight chlorine odor.
Color	Various colors.	Odor	Slight chlorine odor.
Odor Threshold	No data available		
General Properties			
Boiling Point	Decomposes @ 170-180°C (338-356°F)	Melting Point/Freezing Point	No data available
Decomposition Temperature	170 to 180 °C(338 to 356 °F)	pH	Alkaline
Specific Gravity/Relative Density	No data available	Bulk Density	1 to 1.07 g/cm <sup>3</sup>
Water Solubility	Soluble 100 %	Viscosity	No data available

**Volatility**

Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	Volatiles (Wt.)	0 %
Volatiles (Vol.)	0 %		

**Flammability**

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	No data available
Self-Accelerating Decomposition Temperature (SADT)	60 °C(140 °F)	Flammability (solid, gas)	No data available

**Environmental**

Octanol/Water Partition coefficient	No data available		
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**9.2 Other Information**

- No additional physical and chemical parameters noted.

**Section 10: Stability and Reactivity****10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

- The product may not be stable under certain conditions of storage or use. Product decomposes at approximately 170-180°C (338-356°F) releasing oxygen gas and some chlorine gas.

**10.3 Possibility of hazardous reactions**

- Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following: contact with combustible materials, contact with acids/ammonia. Reactions may include the following: risk of causing or intensifying fire, liberation of toxic gas.

**10.4 Conditions to avoid**

- Heating may cause a fire or explosion. Excessive heat will cause decomposition resulting in the release of oxygen and chlorine gas.

**10.5 Incompatible materials**

- Highly reactive or incompatible with the following materials: moisture, combustible materials, organic materials, metals, acids, alkalis, oxidizing materials, reducing materials, ammonia, petroleum products, paint products, wood and paper, and pool chemicals. Acid or ammonia contamination will release toxic gases.

**10.6 Hazardous decomposition products**

- Depending on conditions, product slowly releases chlorine gas.

**Section 11 - Toxicological Information****11.1 Information on toxicological effects**

Components		
Calcium chloride (0.1%)	10043-52-4	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 1 g/kg
Calcium hydroxide (1% TO 3%)	1305-62-0	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 7340 mg/kg; <b>Irritation:</b> Eye-Rabbit • 10 mg • Severe irritation
Calcium carbonate (1% TO 3%)	471-34-1	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 6450 mg/kg; <b>Irritation:</b> Eye-Rabbit • 750 µg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation

Sodium chloride (10% TO 30%)	7647-14 -5	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 3000 mg/kg; <b>Irritation:</b> Eye-Rabbit • 100 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; <b>Multi-dose Toxicity:</b> Ingestion/Oral-Rat TDLo • 201.6 g/kg 6 Week(s)-Intermittent; <i>Vascular:BP elevation not characterized in autonomic section;</i> <b>Mutagen:</b> <i>Unscheduled DNA synthesis</i> • Ingestion/Oral-Rat • 16800 mg/kg 4 Week(s)-Continuous; <b>Reproductive:</b> Ingestion/Oral-Rat TDLo • 56400 mg/kg (5D pre-21D post); <i>Reproductive Effects:Maternal Effects:Postpartum; Reproductive Effects:Effects on Newborn:Biochemical and metabolic</i>
Pentasodium triphosphate (< 1%)	7758-29 -4	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 3120 mg/kg; <i>Behavioral:Somnolence (general depressed activity); Behavioral:Coma;</i> Skin-Rabbit LD50 • >4640 mg/kg; <i>Behavioral:Somnolence (general depressed activity); Lungs, Thorax, or Respiration:Dyspnea;</i> <b>Irritation:</b> Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation
Calcium hypochlorite (65% TO 76%)	7778-54 -3	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 850 mg/kg

GHS Properties	Classification
<b>Acute toxicity</b>	EU/CLP • Acute Toxicity - Oral 4 - ATEmix (oral)= 1118 mg/kg UN GHS 3 • Acute Toxicity - Oral 4 - ATEmix(oral)=1037 mg/kg OSHA HCS 2012 • Acute Toxicity - Oral 4 - ATEmix(oral)=1037 mg/kg WHMIS 2015 • Acute Toxicity - Oral 4 - ATEmix (oral) = 1058 mg/kg
<b>Skin corrosion/Irritation</b>	EU/CLP • Skin Corrosion 1B UN GHS 3 • Skin Corrosion 1B OSHA HCS 2012 • Skin Corrosion 1B WHMIS 2015 • Skin Corrosion 1B
<b>Serious eye damage/Irritation</b>	EU/CLP • Serious Eye Damage 1 UN GHS 3 • Serious Eye Damage 1 OSHA HCS 2012 • Serious Eye Damage 1 WHMIS 2015 • Serious Eye Damage 1
<b>Skin sensitization</b>	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
<b>Respiratory sensitization</b>	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
<b>Aspiration Hazard</b>	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
<b>Carcinogenicity</b>	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
<b>Germ Cell Mutagenicity</b>	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
<b>Toxicity for Reproduction</b>	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available



	<p><b>WHMIS 2015</b> • No data available</p>
<b>STOT-SE</b>	<p><b>EU/CLP</b> • No data available  <b>UN GHS 3</b> • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation  <b>OSHA HCS 2012</b> • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation  <b>WHMIS 2015</b> • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation</p>
<b>STOT-RE</b>	<p><b>EU/CLP</b> • No data available  <b>UN GHS 3</b> • No data available  <b>OSHA HCS 2012</b> • No data available  <b>WHMIS 2015</b> • No data available</p>

**Potential Health Effects**

**Inhalation**

- Acute (Immediate)** • May cause corrosive burns - irreversible damage. May cause respiratory irritation.
- Chronic (Delayed)** • Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

**Skin**

- Acute (Immediate)** • Causes severe skin burns.
- Chronic (Delayed)** • Repeated or prolonged exposure to corrosive materials will cause dermatitis.

**Eye**

- Acute (Immediate)** • Causes serious eye damage. Direct contact with the eyes can cause irreversible damage, including blindness.
- Chronic (Delayed)** • Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

**Ingestion**

- Acute (Immediate)** • Harmful or fatal if swallowed. May cause irreversible damage to mucous membranes.
- Chronic (Delayed)** • Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

**Key to abbreviations**

- LD = Lethal Dose
- TD = Toxic Dose

**Section 12 - Ecological Information**

**12.1 Toxicity**

	CAS	
Calcium Hypochlorite Tablets	NDA	<p><b>Aquatic Toxicity-Fish:</b> 96 Hour(s) <i>Bluegill - Lepomis macrochirus</i> 57-60 µg/L [Fresh water] Comments: Calcium hypochlorite                      96 Hour(s) LC50 <i>Atlantic silverside - Menidia menidia</i> 37 µg/L [Marine water] Comments: Calcium hypochlorite                      96 Hour(s) LC50 <i>Bluegill - Lepomis macrochirus</i> 1294600 µg/L [Fresh water] Comments: Sodium chloride                      96 Hour(s) LC50 <i>Guppy - Poecilia reticulata</i> 356 mg/L [Marine water] Comments: Calcium hydroxide                      96 Hour(s) NOEC <i>Guppy - Poecilia reticulata</i> 56 mg/L [Marine water] Comments: Calcium hydroxide  <b>Aquatic Toxicity-Crustacea:</b> 48 Hour(s) EC50 <i>Water flea - Daphnia magna</i> 402600-469200 µg/L [Fresh water] Comments: Sodium chloride                      48 Hour(s) EC50 <i>Water flea - Daphnia magna</i> 0.073-0.079 µg/L [Fresh water] Comments: Calcium hypochlorite</p>

- LC50: 0.088 mg/L (96 hr, Bluegill Sunfish) Very toxic to aquatic life. Do not allow to

enter groundwater, surface water or drains. Hazardous to the aquatic environment  
Chronic 1.

## 12.2 Persistence and degradability

- Material data lacking.

## 12.3 Bioaccumulative potential

- Material data lacking.

## 12.4 Mobility in Soil

- Material data lacking.

## 12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

## 12.6 Other adverse effects

- No studies have been found.

## Section 13 - Disposal Considerations

### 13.1 Waste treatment methods

#### Product waste

- The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Spilled material that has been swept up and dissolved in water should be used immediately in the normal application for which this product is being consumed. If this is not possible, material may be neutralized. Please contact Axiall Corporation Emergency Response team for guidance at 304-455-6882. Note: Only properly neutralized material should be flushed to sewer. Unneutralized material can cause environmental damage to receiving water or can interfere with treatment plant operation. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. Empty containers retain product residue and can be hazardous. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

#### Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Marine Pollutant
TDG	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Marine Pollutant
IMO/MDG	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Marine Pollutant
IATA/ICAO	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Chronic Aquatic Toxicity

### 14.6 Special precautions for user

- Under 49 CFR (DOT), non-bulk U.S. domestic shipments by ground do not require Marine Pollutant markings or labels, nor does Marine Pollutant need to be mentioned on shipping papers.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

- Data lacking.

**Section 15 - Regulatory Information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****SARA Hazard Classifications** • Acute, Fire**FIFRA – Pesticide Labeling**

This chemical is a pesticide product registered by the Environmental Protection Agency and is regulated under FIFRA. Pesticide products are exempt from TSCA and not subject to inventory requirements.

- This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Calcium chloride	10043-52-4	Yes	No	Yes	No	Yes
Calcium hydroxide	1305-62-0	Yes	No	Yes	No	Yes
Calcium carbonate	471-34-1	Yes	No	Yes	No	Yes
Calcium chlorate	10137-74-3	No	No	Yes	No	No
Calcium hypochlorite	7778-54-3	Yes	No	Yes	No	Yes
Sodium chloride	7647-14-5	Yes	No	Yes	No	Yes
Pentasodium triphosphate	7758-29-4	Yes	No	Yes	No	Yes

**Canada****Labor****Canada - WHMIS 1988 - Classifications of Substances**

• Calcium chloride	10043-52-4	D2B
• Calcium hypochlorite	7778-54-3	C, E
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	E
• Sodium chloride	7647-14-5	Uncontrolled product according to WHMIS classification criteria
• Calcium carbonate	471-34-1	Uncontrolled product according to WHMIS classification criteria

**Canada - WHMIS 1988 - Ingredient Disclosure List**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	1 %
• Sodium chloride	7647-14-5	Not Listed

- |                     |          |            |
|---------------------|----------|------------|
| • Calcium carbonate | 471-34-1 | Not Listed |
|---------------------|----------|------------|

**Environment****Canada - CEPA - Priority Substances List**

- |                            |            |            |
|----------------------------|------------|------------|
| • Calcium chloride         | 10043-52-4 | Not Listed |
| • Calcium hypochlorite     | 7778-54-3  | Not Listed |
| • Calcium chlorate         | 10137-74-3 | Not Listed |
| • Pentasodium triphosphate | 7758-29-4  | Not Listed |
| • Calcium hydroxide        | 1305-62-0  | Not Listed |
| • Sodium chloride          | 7647-14-5  | Not Listed |
| • Calcium carbonate        | 471-34-1   | Not Listed |

**United States****Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

- |                            |            |            |
|----------------------------|------------|------------|
| • Calcium chloride         | 10043-52-4 | Not Listed |
| • Calcium hypochlorite     | 7778-54-3  | Not Listed |
| • Calcium chlorate         | 10137-74-3 | Not Listed |
| • Pentasodium triphosphate | 7758-29-4  | Not Listed |
| • Calcium hydroxide        | 1305-62-0  | Not Listed |
| • Sodium chloride          | 7647-14-5  | Not Listed |
| • Calcium carbonate        | 471-34-1   | Not Listed |

**U.S. - OSHA - Specifically Regulated Chemicals**

- |                            |            |            |
|----------------------------|------------|------------|
| • Calcium chloride         | 10043-52-4 | Not Listed |
| • Calcium hypochlorite     | 7778-54-3  | Not Listed |
| • Calcium chlorate         | 10137-74-3 | Not Listed |
| • Pentasodium triphosphate | 7758-29-4  | Not Listed |
| • Calcium hydroxide        | 1305-62-0  | Not Listed |
| • Sodium chloride          | 7647-14-5  | Not Listed |
| • Calcium carbonate        | 471-34-1   | Not Listed |

**Environment****U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

- |                            |            |            |
|----------------------------|------------|------------|
| • Calcium chloride         | 10043-52-4 | Not Listed |
| • Calcium hypochlorite     | 7778-54-3  | Not Listed |
| • Calcium chlorate         | 10137-74-3 | Not Listed |
| • Pentasodium triphosphate | 7758-29-4  | Not Listed |
| • Calcium hydroxide        | 1305-62-0  | Not Listed |
| • Sodium chloride          | 7647-14-5  | Not Listed |
| • Calcium carbonate        | 471-34-1   | Not Listed |

**U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities**

- |                            |            |                                  |
|----------------------------|------------|----------------------------------|
| • Calcium chloride         | 10043-52-4 | Not Listed                       |
| • Calcium hypochlorite     | 7778-54-3  | 10 lb final RQ; 4.54 kg final RQ |
| • Calcium chlorate         | 10137-74-3 | Not Listed                       |
| • Pentasodium triphosphate | 7758-29-4  | Not Listed                       |
| • Calcium hydroxide        | 1305-62-0  | Not Listed                       |
| • Sodium chloride          | 7647-14-5  | Not Listed                       |
| • Calcium carbonate        | 471-34-1   | Not Listed                       |

**U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities**

- |                        |            |            |
|------------------------|------------|------------|
| • Calcium chloride     | 10043-52-4 | Not Listed |
| • Calcium hypochlorite | 7778-54-3  | Not Listed |

• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**United States - California****Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - California - Proposition 65 - Developmental Toxicity**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - California - Proposition 65 - Reproductive Toxicity - Female**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

**U.S. - California - Proposition 65 - Reproductive Toxicity - Male**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

## 15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

### 15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

## Section 16 - Other Information

### Relevant Phrases (code & full text)

- H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H412 - Harmful to aquatic life with long lasting effects

### Revision Date

- 28/January/2021

### Preparation Date

- 26/June/2015

### Disclaimer/Statement of Liability

- The technical data given herein is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. No guarantee is being given as to the end use performance. The product is sold on the basis that buyers test the product for their specific purposes. This information related to the material designated and may not be valid for such material used in combination with any other materials or in any process.

### Key to abbreviations

NDA = No Data Available

**1. Identification**

**Other means of identification** None known.  
**Product identifier** **SODIUM HYPOCHLORITE 10%**  
**Recommended use** ALL PROPER AND LEGAL PURPOSES  
**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

**Company name** Brenntag Mid-South, Inc.  
**Address** 1405 Highway 136, West  
 Henderson, KY 42420  
**Telephone** 270-830-1222  
**E-mail** Not available.  
**Emergency phone number** 800-424-9300 CHEMTREC

**2. Hazard(s) identification**

**Physical hazards** Not classified.  
**Health hazards** Skin corrosion/irritation Category 1  
 Serious eye damage/eye irritation Category 1  
**Environmental hazards** Not classified.  
**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger  
**Hazard statement** Causes severe skin burns and eye damage. Causes serious eye damage.  
**Precautionary statement**  
**Prevention** Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.  
**Response** If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Storage** Store locked up.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.  
**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information** None.

**3. Composition/information on ingredients**

**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
HYPOCHLOROUS ACID, SODIUM SALT (1:1)		7681-52-9	10
SODIUM HYDROXIDE (NA(OH))		1310-73-2	0.5
Other components below reportable levels			89.5



## 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Prevent entry into waterways, sewer, basements or confined areas.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	PEL	2 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

#### NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	IDLH	10 mg/m <sup>3</sup>

#### US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

#### US. OARS. Workplace Environmental Exposure Level (WEEL) Guide

Components	Type	Value
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)	STEL	2 mg/m <sup>3</sup>

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

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

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

**Eye/face protection** Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin protection

**Hand protection** Wear appropriate chemical resistant gloves.

**Other** Wear appropriate chemical resistant clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Liquid.  
**Form** Liquid.  
**Color** CLEAR, LIGHT YELLOW-GREEN

**Odor** CHLORINE

**Odor threshold** Not available.

**pH** > 11.5 - < 13.5

**Melting point/freezing point** 7 °F (-13.89 °C)

**Initial boiling point and boiling range** 224.88 °F (107.16 °C) estimated

<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	9.78 lbs/gal 1.17 g/ml
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>Percent volatile</b>	89.5 % estimated
<b>Specific gravity</b>	1.17

## 10. Stability and reactivity

<b>Reactivity</b>	Reacts violently with strong acids. This product may react with oxidizing agents.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Contact with incompatible materials. Do not mix with other chemicals.
<b>Incompatible materials</b>	Acids. Oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

### Information on toxicological effects

**Acute toxicity** Not known.

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
SODIUM HYPOCHLORITE 10%		
<b>Acute</b>		
<b>Dermal</b>		
ATEmix		270000 mg/kg bw
<b>Oral</b>		
ATEmix		28000 mg/kg bw

Components	Species	Test Results
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	8.91 g/kg
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	1350 mg/kg
<b>Oral</b>		
LD50	Rat	140 - 340 mg/kg
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Skin sensitization</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Carcinogenicity</b>	Due to partial or complete lack of data the classification is not possible.	

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

#### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Specific target organ toxicity - single exposure</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful.	

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) >= 0.11 - <= 0.13 mg/l, 24 hours
	LC50	Calanoid copepod (Acartia tonsa) >= 0.313 - <= 0.497 mg/l, 24 hours
		Coon stripe shrimp (Pandalus danae) >= 0.246 - <= 0.333 mg/l, 96 hours
		Daggerblade grass shrimp (Palaemonetes pugio) >= 46 - <= 58.8 mg/l, 96 hours
		Opossum shrimp (Americamysis bahia) >= 0.229 - <= 0.321 mg/l, 96 hours
		Rotifer (Brachionus calyciflorus) >= 0.35 - <= 0.39 mg/l, 24 hours
		Scud (Hyaella azteca) >= 0.252 - <= 0.362 mg/l, 96 hours
		Water flea (Ceriodaphnia dubia) 0.14 mg/l, 24 hours
	Water flea (Daphnia magna) >= 0.045 - <= 0.068 mg/l, 48 hours	
	Fish	LC50

Components	Species	Test Results
	Brown trout ( <i>Salmo trutta</i> )	>= 0.02 - <= 0.05 mg/l, 1.5 hours
	California grunion ( <i>Leuresthes tenuis</i> )	0.139 mg/l, 24 hours
	Carp ( <i>Cyprinus carpio</i> )	>= 1.75 - <= 1.89 mg/l, 160 minutes
	Channel catfish ( <i>Ictalurus punctatus</i> )	0.45 mg/l, 96 hours
	Coho salmon, silver salmon ( <i>Oncorhynchus kisutch</i> )	>= 0.245 - <= 0.328 mg/l, 15 minutes
	Fathead minnow ( <i>Pimephales promelas</i> )	>= 4.4 - <= 7.1 mg/l, 24 hours
	Freshwater drum ( <i>Aplodinotus grunniens</i> )	>= 1.67 - <= 1.83 mg/l, 160 minutes
	Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )	>= 0.05 - <= 0.071 mg/l, 96 hours
		> 0.03 - < 0.07 mg/l, 96 hours
	Shiner perch ( <i>Cymatogaster aggregata</i> )	>= 0.045 - <= 0.098 mg/l, 96 hours
	Yellow perch ( <i>Perca flavescens</i> )	>= 18 - <= 28.7 mg/l, 15 minutes
	Yellowtail flounder ( <i>Pleuronectes ferrugineus</i> )	0.1 mg/l, 24 hours

#### SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

##### Aquatic

##### Acute

##### Crustacea

EC50

Water flea (*Ceriodaphnia dubia*)

34.59 - 47.13 mg/l, 48 hours

##### Fish

LC50

Western mosquitofish (*Gambusia affinis*)

125 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions** Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel]  
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

#### DOT

**UN number** UN1791

**UN proper shipping name** HYPOCHLORITE SOLUTIONS MARINE POLLUTANT (SODIUM HYPOCHLORITE) RQ

**Transport hazard class(es)**

**Class** 8

**Subsidiary risk** -

**Packing group** III

**Environmental hazards**

**Marine pollutant** No.

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**ERG number** 154

Transport information on packaging may be different from that listed. Transportation information on packaging may be different from that listed.

## DOT



**General information** IMDG Regulated Marine Pollutant.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Toxic Substances Control Act (TSCA)

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### CERCLA Hazardous Substance List (40 CFR 302.4)

HYPOCHLOROUS ACID, SODIUM SALT (1:1) Listed.

(CAS 7681-52-9)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2) Listed.

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Skin corrosion or irritation  
Serious eye damage or eye irritation

### SARA 313 (TRI reporting)

Not regulated.

## Other federal regulations

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

## US state regulations

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

### California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

<b>Issue date</b>	11-05-2015
<b>Revision date</b>	07-07-2023
<b>Version #</b>	22
<b>HMIS® ratings</b>	Health: 3 Flammability: 0 Physical hazard: 0
<b>NFPA ratings</b>	Health: 3 Flammability: 0 Instability: 0
<b>Disclaimer</b>	While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.
<b>Revision information</b>	Hazard(s) identification: Disposal Hazard(s) identification: Prevention Hazard(s) identification: Response Hazard(s) identification: Storage Accidental release measures: Personal precautions, protective equipment and emergency procedures Handling and storage: Precautions for safe handling Handling and storage: Conditions for safe storage, including any incompatibilities Exposure controls/personal protection: Hand protection Physical & Chemical Properties: Multiple Properties Disposal considerations: Disposal instructions Other information, including date of preparation or last revision: References Other information, including date of preparation or last revision: List of abbreviations



The Public Health and Safety Organization

## NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, August 02, 2023** at 12:15 a.m. Eastern Time. Please [contact NSF](#) to confirm the status of any Listing, report errors, or make suggestions.

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

<http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=34960&Standard=060&>

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

#### Brenntag Mid-South, Inc.

1405 Highway 136 West

P.O. Box 20

Henderson, KY 42420-0020

United States

800-950-7267

270-827-3545

[Visit this company's website](#)

[http://www.brenntag.com/north-america/en/about-](http://www.brenntag.com/north-america/en/about-brenntag/regional-capabilities/brenntag-mid-south/index.jsp)

[brenntag/regional-capabilities/brenntag-mid-south/index.jsp](http://www.brenntag.com/north-america/en/about-brenntag/regional-capabilities/brenntag-mid-south/index.jsp)

**Facility :** Clearwater, FL

#### Hydrochloric Acid

**Trade Designation**

Hydrochloric Acid 28%

Hydrochloric Acid 32%

Muriatic Acid 20 DEG BE

Muriatic Acid 22 DEG BE

**Product Function**

Corrosion & Scale Control

Corrosion & Scale Control

Corrosion & Scale Control

Corrosion & Scale Control

**Max Use**

50mg/L

44mg/L

44mg/L

40mg/L

#### Sodium Hypochlorite[HY]

**Trade Designation**

SNO-GLO BLEACH

Sno-Glo 10% Bleach

**Product Function**

Disinfection & Oxidation

Disinfection & Oxidation

**Max Use**

105mg/L

105mg/L



Sodium Hypochlorite 10.5%	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L
Sodium Hypochlorite, 10%	Disinfection & Oxidation	105mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 15%	Corrosion & Scale Control pH Adjustment	260mg/L
Sulfuric Acid 38.5%	Corrosion & Scale Control pH Adjustment	121mg/L
Sulfuric Acid 50%	Corrosion & Scale Control pH Adjustment	93mg/L
Sulfuric Acid 66 BE	pH Adjustment	50mg/L
Sulfuric Acid 66 DEG	Corrosion & Scale Control Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 78%	pH Adjustment Corrosion & Scale Control	60mg/L
Sulfuric Acid 93%	Corrosion & Scale Control pH Adjustment	50mg/L

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

**Facility : Miami, FL**

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 20%	Corrosion & Scale Control	250mg/L
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

## Facility : Orlando, FL

### Aluminum Sulfate[AL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aluminum Sulfate 50%	Coagulation & Flocculation	150mg/L
Aluminum Sulfate 50% SOLN	Coagulation & Flocculation	150mg/L
Aluminum Sulfate 50% Solution	Coagulation & Flocculation	150mg/L
Aluminum Sulfate Solution	Coagulation & Flocculation	150 mg/L
Liquid Alum	Coagulation & Flocculation	150 mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

### Chlorine[CL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine, Liquified Gas	Disinfection & Oxidation	30 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.

### Ferric Chloride

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferric Chloride 38-42%	Coagulation & Flocculation	250mg/L
Ferric Chloride Liquid	Coagulation & Flocculation	250 mg/L
Ferric Chloride Solution	Coagulation & Flocculation	250 mg/L
Iron (III) Chloride Solution	Coagulation & Flocculation	250mg/L
Iron Trichloride Solution	Coagulation & Flocculation	250mg/L

### Hydrochloric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid 15%	Corrosion & Scale Control pH Adjustment	80mg/L
Hydrochloric Acid 20 BE	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 28%	Corrosion & Scale Control	50mg/L
Hydrochloric Acid 31.45%	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 32%	Corrosion & Scale Control	44mg/L

Muriatic Acid	Corrosion & Scale Control	44mg/L
Muriatic Acid 10%	Corrosion & Scale Control	138mg/L
Muriatic Acid 15%	Corrosion & Scale Control pH Adjustment	80mg/L
Muriatic Acid 20 DEG BE	Corrosion & Scale Control	44mg/L
Muriatic Acid 22 DEG BE	Corrosion & Scale Control	40mg/L

**Sodium Bisulfite[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 19-44%	Dechlorinator & Antioxidant	46mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

**Sodium Hydroxide[2]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 20%	Corrosion & Scale Control	250 mg/L
Caustic Soda 25%	Corrosion & Scale Control	200 mg/L
Caustic Soda 50%	Corrosion & Scale Control	100 mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

[2] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
SNO-GLO BLEACH	Disinfection & Oxidation	105mg/L
Sno-Glo 10% Bleach	Disinfection & Oxidation	105 mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84 mg/L
Sodium Hypochlorite, 10%	Disinfection & Oxidation	105 mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 66 BE	Corrosion & Scale Control	50mg/L
Sulfuric Acid 66 DEG	Corrosion & Scale Control	50mg/L
Sulfuric Acid 93%	Corrosion & Scale Control	50mg/L

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

**Facility : Tampa, FL****Ammonium Sulfate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ammonium Sulfate 38.5% Sol	Chloramination	60mg/L
Ammonium Sulfate 40%	Chloramination	60mg/L
Ammonium Sulfate 40% Sol	Chloramination	60mg/L
WWT 9710	Chloramination	60mg/L

**Citric Acid[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Citric Acid 50%	Membrane Cleaner	NA
Citric Acid Solution	Membrane Cleaner	NA

[1] These products are designed to be used off-line and flushed out prior to using the system for drinking water, following manufacturer's use instructions. The pH of the influent and effluent water should be monitored to ensure that all traces of the product have been removed before placing into service.

**Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid 15%	Corrosion & Scale Control pH Adjustment	80mg/L
Hydrochloric Acid 20 BE	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 28%	Corrosion & Scale Control	50mg/L
Hydrochloric Acid 31.45%	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 32%	Corrosion & Scale Control	44mg/L
Muriatic Acid	Corrosion & Scale Control	44mg/L
Muriatic Acid 10%	Corrosion & Scale Control	138mg/L
Muriatic Acid 15%	Corrosion & Scale Control pH Adjustment	80mg/L
Muriatic Acid 20 DEG BE	Corrosion & Scale Control	44mg/L

Muriatic Acid 22 DEG BE	Corrosion & Scale Control	40mg/L
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**Sodium Bisulfite[2]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 19-44%	Dechlorinator & Antioxidant	46mg/L

[2] This product contains sulfite. Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals. The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

**Sodium Hydroxide[3]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide 50% DIA	Corrosion & Scale Control	100mg/L
Sodium Hydroxide 50% MEM	Corrosion & Scale Control	100mg/L
Sodium Hydroxide Solution 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide Solution 50%	Corrosion & Scale Control	100mg/L

[3] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 10.5%	Disinfection & Oxidation	100mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 15%	Corrosion & Scale Control pH Adjustment	260mg/L
Sulfuric Acid 38.5%	Corrosion & Scale Control pH Adjustment	121mg/L
Sulfuric Acid 50%	Corrosion & Scale Control pH Adjustment	93mg/L

Sulfuric Acid 66 BE	pH Adjustment	50mg/L
	Corrosion & Scale Control	
Sulfuric Acid 66 DEG	Corrosion & Scale Control	50mg/L
	pH Adjustment	
Sulfuric Acid 78%	pH Adjustment	60mg/L
	Corrosion & Scale Control	
Sulfuric Acid 93%	Corrosion & Scale Control	50mg/L
	pH Adjustment	

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

### **Facility : Eastpoint, GA**

#### **Aluminum Chlorohydrate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Prestofloc C-100	Coagulation & Flocculation	250mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

#### **Ferric Chloride**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferric Chloride 38-42%	Coagulation & Flocculation	250mg/L
Ferric Chloride Liquid	Coagulation & Flocculation	250mg/L
Ferric Chloride Solution	Coagulation & Flocculation	250mg/L
Iron (III) Chloride Solution	Coagulation & Flocculation	250mg/L
Iron Trichloride Solution	Coagulation & Flocculation	250mg/L

#### **Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 10%	Corrosion & Scale Control	500mg/L
	pH Adjustment	
Caustic Soda 20%	Corrosion & Scale Control	250mg/L
	pH Adjustment	
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
	pH Adjustment	
Caustic Soda 30%	Corrosion & Scale Control	166mg/L
	pH Adjustment	
Caustic Soda 50%	Corrosion & Scale Control	100mg/L
	pH Adjustment	

Sodium Hydroxide 10%	Corrosion & Scale Control pH Adjustment	500mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control pH Adjustment	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control pH Adjustment	200mg/L
Sodium Hydroxide 30%	Corrosion & Scale Control pH Adjustment	166mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control pH Adjustment	100mg/L

[1] Trade Designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

#### **Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 10%	Disinfection & Oxidation	91mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	73mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

#### **Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 66	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 66 Baumé	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 66Be	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 93%	Corrosion & Scale Control pH Adjustment	50mg/L

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

**Facility : Savannah, GA**

**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

**Facility : Valdosta, GA**

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 10%	Corrosion & Scale Control pH Adjustment	500mg/L
Caustic Soda 20%	Corrosion & Scale Control pH Adjustment	250mg/L
Caustic Soda 25%	Corrosion & Scale Control pH Adjustment	200mg/L
Caustic Soda 30%	Corrosion & Scale Control pH Adjustment	166mg/L
Caustic Soda 50%	Corrosion & Scale Control pH Adjustment	100mg/L
Sodium Hydroxide 10%	Corrosion & Scale Control pH Adjustment	500mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control pH Adjustment	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control pH Adjustment	200mg/L
Sodium Hydroxide 30%	Corrosion & Scale Control pH Adjustment	166mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control pH Adjustment	100mg/L

[1] Trade Designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
SNO-GLO BLEACH	Disinfection & Oxidation	105mg/L
Sno-Glo 10% Bleach	Disinfection & Oxidation	105mg/L
Sodium Hypochlorite 10%	Disinfection & Oxidation	105mg/L



Sodium Hypochlorite 10.5%	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

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

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

**Phosphoric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
PHOSPHORIC ACID 75%	Corrosion & Scale Control Softener	13mg/L

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 66 BE	Corrosion & Scale Control	50mg/L
Sulfuric Acid 66 DEG	Corrosion & Scale Control	50mg/L
Sulfuric Acid 93%	Corrosion & Scale Control	50mg/L

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

**Facility :** Indianapolis, IN

**Aluminum Chlorohydrate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Prestofloc C-100	Coagulation & Flocculation	250mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Aluminum Sulfate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aluminum Sulfate Solution	Coagulation & Flocculation	150mg/L
Liquid Alum	Coagulation & Flocculation	150mg/L
Liquid Alum 50% Sol	Coagulation & Flocculation	150mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Ammonium Sulfate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ammonium Sulfate 38.5% Sol	Chloramination	60mg/L
Ammonium Sulfate 40%	Chloramination	60mg/L
Ammonium Sulfate 40% Sol	Chloramination	60mg/L
WWT 9710	Chloramination	60mg/L

**Citric Acid[1] [2]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Citric Acid Solution	Membrane Cleaner	NA
Citric Acid, Anhydrous	Membrane Cleaner	NA

[1] This product is designed to be used off-line and flushed out prior to using the system for drinking water, following the manufacturer's use instructions.

[2] The pH of the influent and effluent water should be monitored to ensure that all traces of the product have been removed before placing into service.

**Hydrofluosilicic Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrofluosilicic Acid 23%	Fluoridation	5 mg/L

**Poly (Diallyldimethylammonium Chloride)(pDADMAC)**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Robin 110	Coagulation & Flocculation	100mg/L
Robin 120	Coagulation & Flocculation	50mg/L
Robin 220	Coagulation & Flocculation	50mg/L
RobinFloc 4325	Coagulation & Flocculation	100mg/L

**Polyaluminum Chloride[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Brennfloc CC 2818	Coagulation & Flocculation	250mg/L
Brennfloc CC2358	Coagulation & Flocculation	100mg/L
Prestofloc C-100	Coagulation & Flocculation	250mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Sodium Hydroxide[3]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 10%	Corrosion & Scale Control pH Adjustment	500mg/L
Caustic Soda 20%	Corrosion & Scale Control pH Adjustment	250mg/L
Caustic Soda 25%	Corrosion & Scale Control pH Adjustment	200mg/L
Caustic Soda 30%	Corrosion & Scale Control pH Adjustment	166mg/L
Caustic Soda 50%	Corrosion & Scale Control pH Adjustment	100mg/L
Sodium Hydroxide 10%	Corrosion & Scale Control pH Adjustment	500mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control pH Adjustment	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control pH Adjustment	200mg/L
Sodium Hydroxide 30%	Corrosion & Scale Control pH Adjustment	166mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control pH Adjustment	100mg/L

[3] Trade Designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chem Bleach Household	Disinfection & Oxidation	200mg/L
SNO-GLO BLEACH	Disinfection & Oxidation	105mg/L
Sno-Glo Bleach	Disinfection & Oxidation	105mg/L
Sodium Hypochlorite 10%	Disinfection & Oxidation	105mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L
Sodium Hypochlorite 5.25% Solution	Disinfection & Oxidation	200mg/L

[HY] 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. Also,

reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 50%	Corrosion & Scale Control pH Adjustment	93mg/L
Sulfuric Acid 66 BE	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 66 Degree	Corrosion & Scale Control pH Adjustment	50mg/L

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

**Facility : Terre Haute, IN**

**Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine	Disinfection & Oxidation	30 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.

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 10%	Corrosion & Scale Control pH Adjustment	500mg/L
Caustic Soda 20%	Corrosion & Scale Control pH Adjustment	250mg/L
Caustic Soda 25%	Corrosion & Scale Control pH Adjustment	200mg/L
Caustic Soda 30%	Corrosion & Scale Control pH Adjustment	166mg/L
Caustic Soda 50%	Corrosion & Scale Control pH Adjustment	100mg/L

Sodium Hydroxide 10%	Corrosion & Scale Control pH Adjustment	500mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control pH Adjustment	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control pH Adjustment	200mg/L
Sodium Hydroxide 30%	Corrosion & Scale Control pH Adjustment	166mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control pH Adjustment	100mg/L

[1] Trade Designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
SNO-GLO BLEACH	Disinfection & Oxidation	105mg/L
Sno-Glo Bleach	Disinfection & Oxidation	105mg/L
Sodium Hypochlorite 10%	Disinfection & Oxidation	105mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84 mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

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

**Facility : Georgetown, KY**

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite	Disinfection & Oxidation	64mg/L

[HY] 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. Also,

reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Facility :** Henderson, KY

**Aluminum Chlorohydrate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Brennfloc BC4105[PY]	Coagulation & Flocculation	31mg/L
Prestofloc C-100	Coagulation & Flocculation	250 mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

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

**Aluminum Sulfate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aluminum Sulfate 50%	Coagulation & Flocculation	150mg/L
Aluminum Sulfate 50% Solution	Coagulation & Flocculation	150mg/L
Aluminum Sulfate Solution	Coagulation & Flocculation	150 mg/L
Liquid Alum	Coagulation & Flocculation	150 mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Ammonia, Anhydrous**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ammonia, Anhydrous	Chloramination	5 mg/L

**Ammonium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
AQUA AMMONIA	Chloramination	10 mg/L
Ammonium Hydroxide 19%	Chloramination	10mg/L
Aqua Ammonia 26 Deg	Chloramination	10mg/L

**Ammonium Sulfate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ammonium Sulfate 38.5% Sol	Chloramination	60mg/L
Ammonium Sulfate 40%	Chloramination	60mg/L

Ammonium Sulfate 40% Sol	Chloramination	60mg/L
WWT 9710	Chloramination	60mg/L

**Blended Phosphates**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
AquaPure 3627	Corrosion & Scale Control Sequestering	25mg/L
AquaPure 3628	Corrosion & Scale Control Sequestering	25mg/L
AquaPure 3637	Corrosion & Scale Control Sequestering	25mg/L
AquaPure 3646	Corrosion & Scale Control Sequestering	25mg/L
AquaPure 3664	Corrosion & Scale Control Sequestering	25mg/L
AquaPure 3672	Corrosion & Scale Control Sequestering	25mg/l
AquaPure 3673	Corrosion & Scale Control Sequestering	25mg/L
AquaPure 3682	Corrosion & Scale Control Sequestering	25mg/l
AquaPure 3691	Corrosion & Scale Control Sequestering	25mg/L
Aquapure 3610	Corrosion & Scale Control Sequestering	25mg/L
Aquapure 3619	Corrosion & Scale Control Sequestering	25mg/L
Aquapure 3655	Corrosion & Scale Control Sequestering	25mg/L

**Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine, Liquified Gas	Disinfection & Oxidation	30 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.

**Citric Acid[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Citric Acid 50%	Membrane Cleaner	NA
Citric Acid Solution	Membrane Cleaner	NA

[1] These products are designed to be used off-line and flushed out prior to using the system for drinking water, following manufacturer's use instructions. The pH of the influent and effluent water should be monitored to ensure that all traces of the product have been removed before placing into service.

**Ferric Chloride**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferric Chloride 38-42%	Coagulation & Flocculation	250mg/L
Ferric Chloride Liquid	Coagulation & Flocculation	250 mg/L
Ferric Chloride Solution	Coagulation & Flocculation	250 mg/L
Iron (III) Chloride Solution	Coagulation & Flocculation	250mg/L
Iron Trichloride Solution	Coagulation & Flocculation	250mg/L

**Ferric Sulfate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferri-Floc Liquid	Coagulation & Flocculation	500 mg/L
Ferric Sulfate	Coagulation & Flocculation	500 mg/L

**Fluosilicic Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrofluosilicic Acid 23%	Fluoridation	5 mg/L

**Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid 15%	Corrosion & Scale Control pH Adjustment	80mg/L
Hydrochloric Acid 20 BE	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 28%	Corrosion & Scale Control	50mg/L
Hydrochloric Acid 31.45%	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 32%	Corrosion & Scale Control	44mg/L
Muriatic Acid	Corrosion & Scale Control	44mg/L
Muriatic Acid 10%	Corrosion & Scale Control	138mg/L
Muriatic Acid 15%	Corrosion & Scale Control pH Adjustment	80mg/L
Muriatic Acid 20 DEG BE	Corrosion & Scale Control	44mg/L
Muriatic Acid 22 DEG BE	Corrosion & Scale Control	40mg/L

**Hydrogen Peroxide [HP]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrogen Peroxide 30%[2]	Oxidant	3.5mg/L
Hydrogen Peroxide 32%[3]	Oxidant	3.3mg/L
Hydrogen Peroxide 35%[4]	Oxidant	3 mg/L
Hydrogen Peroxide 8%	Oxidant	13mg/L



[2] This product may be used at a maximum use level of 95 mg/L for the following functions:

- reoxygenation of treated water
- oxidation of organic residuals
- oxidation of any reduced products, such as Fe(II) and sulfides

Treatment must be followed by chlorination to a chlorine residual no to exceed 4 mg/L, the EPA's proposed maximum residual level.

[3] This product may be used at a maximum use level of 90 mg/L for the following functions:

- reoxygenation of treated water
- oxidation of organic residuals
- oxidation of any reduced products, such as Fe(II) and sulfides

Treatment must be followed by chlorination to a chlorine residual no to exceed 4 mg/L, the EPA's proposed maximum residual level.

[4] This product may be used at a maximum use level of 85 mg/L for the following functions:

- reoxygenation of treated water
- oxidation of organic residuals
- oxidation of any reduced products, such as Fe(II) and sulfides

Treatment must be followed by chlorination to a chlorine residual no to exceed 4 mg/L, the EPA's proposed maximum residual level.

[HP] Use of this product shall be followed by chlorination to remove levels of hydrogen peroxide. Chlorine residuals shall not exceed 4 mg/L, the EPA's proposed maximum residual level.

#### Miscellaneous Water Supply Products[5] [6]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Innova	Well Cleaning Aid	NA
Layne RC	Well Cleaning Aid	N/A
Layne RC10	Well Cleaning Aid	N/A
Layne RC15	Well Cleaning Aid	N/A

[5] These products are designed to be used off-line and flushed out prior to using the system for drinking water, following manufacturer's use instructions.

[6] The well is to be properly flushed and drained before being places in service.

#### Monosodium Orthophosphate

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
AquaPure 3601	Corrosion & Scale Control Sequestering	25mg/L

#### Phosphoric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aquapure Ortho	Corrosion & Scale Control	26mg/L
Phosphoric Acid (36% PO <sub>4</sub> )	Corrosion & Scale Control	26mg/L
Phosphoric Acid 75%	Corrosion & Scale Control	13mg/L

**Polyaluminum Chloride[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Brennfloc CC 2818	Coagulation & Flocculation	250mg/L
Brennfloc CC2358	Coagulation & Flocculation	100mg/L
Prestofloc C-50	Coagulation & Flocculation	250 mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Polyamines[PY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Brennfloc CP 7452P	Coagulation & Flocculation	20mg/L

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

**Polymer Blends[AL] [PY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Brennfloc BC 2376	Coagulation & Flocculation	250mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

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

**Sodium Bisulfite[7]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 19-44%	Dechlorinator & Antioxidant	46mg/L

[7] This product contains sulfite. Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals. The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

**Sodium Carbonate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Soda Ash 15%	Corrosion & Scale Control pH Adjustment	667mg/L
Sodium Carbonate 15%	Corrosion & Scale Control pH Adjustment	667mg/L

**Sodium Chlorite[8] [CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Chlorite	Chlorine Dioxide Production	14mg/L
Sodium Chlorite 31.25%	Chlorine Dioxide Production	22mg/L

[8] These products are certified for use in chlorine dioxide generation.

[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.

**Sodium Hydroxide[9]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 20%	Corrosion & Scale Control	250 mg/L
Caustic Soda 25%	Corrosion & Scale Control	200 mg/L
Caustic Soda 50%	Corrosion & Scale Control	100 mg/L
Caustic Soda 30%	Corrosion & Scale Control	166mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide 30%	Corrosion & Scale Control	166mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

[9] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chem Bleach Household	Disinfection & Oxidation	200mg/L
SNO-GLO BLEACH	Disinfection & Oxidation	105mg/L
Sno-Glo 10% Bleach	Disinfection & Oxidation	105 mg/L
Sodium Hypochlorite 10%	Disinfection & Oxidation	105 mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84 mg/L
Sodium Hypochlorite 12.5% NSF	Disinfection & Oxidation	84mg/L
Sodium Hypochlorite 5.25% Solution	Disinfection & Oxidation	200mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Sodium Permanganate[PO]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Permanganate	Oxidant	176mg/L
Sodium Permanganate 20%	Oxidant	176mg/L
Sodium Permanganate 40%	Oxidant	88mg/L
Sodium Permanganate Solution	Oxidant	176mg/L
Sodium Permanganate Solution 15%	Oxidant	235mg/L
Sodium Permanganate Solution 19%	Oxidant	185mg/L

[PO] The finished drinking water shall be monitored to ensure that levels of manganese do not exceed 0.05 mg/L.

**Sodium Polyphosphates, Glassy**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
AquaPure SH 36	Corrosion & Scale Control	25mg/L

**Sodium Silicate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
N Sodium Silicate Solution	Corrosion & Scale Control	42mg/L

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 35%	Corrosion & Scale Control	133mg/L
Sulfuric Acid 38.5%	Corrosion & Scale Control	121mg/L
Sulfuric Acid 50%	Corrosion & Scale Control	93mg/L
Sulfuric Acid 78%	Corrosion & Scale Control	60mg/L
Sulfuric Acid 93%	Corrosion & Scale Control	50mg/L

**Tetrapotassium Pyrophosphate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Tetrapotassium Pyrophosphate 60% Solution	Corrosion & Scale Control Sequestering	29mg/L

[CP] The finished drinking water shall be monitored to ensure that levels of copper do not exceed 1.3 mg/L.

**Facility :** Louisville, KY

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	43mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Facility :** Charlotte, NC

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hydroxide 30%	Corrosion & Scale Control	166mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Miscellaneous Chemical Products[PY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
RobinFloc 1212	Coagulation & Flocculation	15mg/L

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

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 15%	Corrosion & Scale Control pH Adjustment	260mg/L
Sulfuric Acid 38.5%	Corrosion & Scale Control pH Adjustment	120mg/L
Sulfuric Acid 66 BE	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 66 DEG	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 78%	Corrosion & Scale Control pH Adjustment	60mg/L
Sulfuric Acid 93%	Corrosion & Scale Control pH Adjustment	50mg/L

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 20%	Corrosion & Scale Control	250mg/L
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
Caustic Soda 30%	Corrosion & Scale Control	166mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid 15%	pH Adjustment Corrosion & Scale Control	80mg/L
Muriatic Acid 15%	pH Adjustment Corrosion & Scale Control	80mg/L
Hydrochloric Acid 20 BE	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 31.45%	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 32%	Corrosion & Scale Control	44mg/L
Muriatic Acid	Corrosion & Scale Control	44mg/L
Muriatic Acid 10%	Corrosion & Scale Control	138mg/L
Muriatic Acid 20 DEG BE	Corrosion & Scale Control	44mg/L
Muriatic Acid 22 DEG BE	Corrosion & Scale Control	40mg/L

**Miscellaneous Chemical Products[PY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Robin 3000	Coagulation & Flocculation	15mg/L

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

#### **Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 50%	Corrosion & Scale Control pH Adjustment	93mg/L

#### **Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 50%	Corrosion & Scale Control	100mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

#### **Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid 28%	Corrosion & Scale Control	50mg/L

### **Facility : Durham, NC**

#### **Ammonium Sulfate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ammonium Sulfate 38.5% Sol	Chloramination	60mg/L
Ammonium Sulfate 40%	Chloramination	60mg/L
Ammonium Sulfate 40% Sol	Chloramination	60mg/L
WWT 9710	Chloramination	60mg/L

#### **Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and

Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Facility : Greensboro, NC**

**Hydrogen Peroxide[HP]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrogen Peroxide 30%	Disinfection & Oxidation	3.5mg/L
Hydrogen Peroxide 32%	Disinfection & Oxidation	3.3mg/L
Hydrogen Peroxide 35%	Disinfection & Oxidation	3mg/L
Hydrogen Peroxide 50%	Disinfection & Oxidation	2.1mg/L
Hydrogen Peroxide 8%	Disinfection & Oxidation	13mg/L

[HP] Use of this product shall be followed by chlorination to remove levels of hydrogen peroxide. Chlorine residuals shall not exceed 4 mg/L, the EPA's proposed maximum residual level.

**Miscellaneous Corrosion Chemicals[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aquapure ® ZOP 1237	Corrosion & Scale Control	15mg/L

[1] Based on an evaluation of health effects data, the level of zinc in the finished drinking water should not exceed 2.0 mg/L.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Facility : Wilmington, NC**



**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 25%	pH Adjustment	200mg/L
Caustic Soda 50%	pH Adjustment	100mg/L
Sodium Hydroxide 25%	pH Adjustment	200mg/L
Sodium Hydroxide 50%	pH Adjustment	100mg/L

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

**Facility : Charleston, SC****Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 50%	Corrosion & Scale Control pH Adjustment	100mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

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

**Facility : Chattanooga, TN****Aluminum Sulfate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aluminum Sulfate Solution	Coagulation & Flocculation	150 mg/L
Liquid Alum	Coagulation & Flocculation	150 mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine, Liquified Gas	Disinfection & Oxidation	30 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.

**Citric Acid[4]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Citric Acid 50%	Membrane Cleaner	NA
Citric Acid Solution	Membrane Cleaner	NA

[4] This product is designed to be used off-line and flushed prior to using the system for drinking water, following manufacturer's use instructions. The pH of the influent and effluent water should be monitored to ensure that all traces of the product have been removed before placing into service.

**Ferric Chloride**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferric Chloride 38-42%	Coagulation & Flocculation	250mg/L
Ferric Chloride Liquid	Coagulation & Flocculation	250 mg/L
Ferric Chloride Solution	Coagulation & Flocculation	250 mg/L
Iron (III) Chloride Solution	Coagulation & Flocculation	250mg/L
Iron Trichloride Solution	Coagulation & Flocculation	250mg/L

**Ferric Sulfate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferri-Floc Liquid	Coagulation & Flocculation	500 mg/L
Ferric Sulfate	Coagulation & Flocculation	500 mg/L

**Fluosilicic Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrofluosilicic Acid 23%	Fluoridation	5mg/L

**Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid 20 BE	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 28%	Corrosion & Scale Control	50mg/L
Hydrochloric Acid 31.45%	Corrosion & Scale Control	44mg/L
Hydrochloric Acid 32%	Corrosion & Scale Control	44mg/L
Muriatic Acid	Corrosion & Scale Control	44mg/L
Muriatic Acid 10%	Corrosion & Scale Control	138mg/L
Muriatic Acid 20 DEG BE	Corrosion & Scale Control	44mg/L
Muriatic Acid 22 DEG BE	Corrosion & Scale Control	40mg/L

**Hydrogen Peroxide [HP]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
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Hydrogen Peroxide 30%[1]	Oxidant	3.5mg/L
Hydrogen Peroxide 32%[2]	Oxidant	3.3mg/L
Hydrogen Peroxide 8%	Oxidant	13mg/L

[1] This product may be used at a maximum use level of 95 mg/L for the following functions:

- reoxygenation of treated water
- oxidation of organic residuals
- oxidation of any reduced products, such as Fe(II) and sulfides

Treatment must be followed by chlorination to a chlorine residual no to exceed 4 mg/L, the EPA's proposed maximum residual level.

[2] This product may be used at a maximum use level of 90 mg/L for the following functions:

- reoxygenation of treated water
- oxidation of organic residuals
- oxidation of any reduced products, such as Fe(II) and sulfides

Treatment must be followed by chlorination to a chlorine residual no to exceed 4 mg/L, the EPA's proposed maximum residual level.

[HP] Use of this product shall be followed by chlorination to remove levels of hydrogen peroxide. Chlorine residuals shall not exceed 4 mg/L, the EPA's proposed maximum residual level.

**Polyaluminum Chloride[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Brennfloc BC 2380	Coagulation & Flocculation	250mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Polymer Blends[PY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
ICS 7191	Coagulation & Flocculation	258mg/L
ICS 7201	Coagulation & Flocculation	490mg/L

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

**Sodium Hydroxide[3]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 20%	Corrosion & Scale Control	250 mg/L
Caustic Soda 25%	Corrosion & Scale Control	200 mg/L
Caustic Soda 50%	Corrosion & Scale Control	100 mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L

Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L
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[3] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chem Bleach Household	Disinfection & Oxidation	200mg/L
SNO-GLO BLEACH	Disinfection & Oxidation	105mg/L
Sno-Glo 10% Bleach	Disinfection & Oxidation	105 mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84 mg/L
Sodium Hypochlorite 5.25% Solution	Disinfection & Oxidation	200mg/L
Sodium Hypochlorite, 10%	Disinfection & Oxidation	105 mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Facility : Distribution Center - Chattanooga, TN**

**Sodium Bisulfite[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 19-44%	Dechlorinator & Antioxidant	46mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

**Sodium Hydroxide[2]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide 55%	Corrosion & Scale Control	100mg/L

[2] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Facility : Memphis, TN**

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 20%	Corrosion & Scale Control	250mg/L
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	40mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 35%	Corrosion & Scale Control	133mg/L
Sulfuric Acid 38.5%	Corrosion & Scale Control	121mg/L
Sulfuric Acid 50%	Corrosion & Scale Control	93mg/L
Sulfuric Acid 66 BE	Corrosion & Scale Control	50mg/L
	pH Adjustment	
Sulfuric Acid 66 DEG	Corrosion & Scale Control	50mg/L
	pH Adjustment	
Sulfuric Acid 78%	Corrosion & Scale Control	60mg/L
Sulfuric Acid 93%	Corrosion & Scale Control	50mg/L

**Facility : Richmond, VA**

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Facility : Nitro, WV**

**Aluminum Sulfate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aluminum Sulfate 50%	Coagulation & Flocculation	150mg/L
Aluminum Sulfate 50% SOLN	Coagulation & Flocculation	150mg/L
Aluminum Sulfate 50% Solution	Coagulation & Flocculation	150mg/L
Aluminum Sulfate Solution	Coagulation & Flocculation	150 mg/L
Liquid Alum	Coagulation & Flocculation	150 mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Polyaluminum Chloride[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Brennfloc BC 2380	Coagulation & Flocculation	200mg/L
Brennfloc BC 2381	Coagulation & Flocculation	200mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Potassium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Potash 45%	Corrosion & Scale Control	100 mg/L

Potassium Hydroxide	Corrosion & Scale Control	100 mg/L
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**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 20%	Corrosion & Scale Control	250 mg/L
Caustic Soda 25%	Corrosion & Scale Control	200 mg/L
Caustic Soda 30%	Corrosion & Scale Control	167 mg/L
Caustic Soda 50%	Corrosion & Scale Control	100 mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide 30%	Corrosion & Scale Control	167mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Facility : St. Albans, WV**

**Aluminum Sulfate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Liquid Alum	Coagulation & Flocculation	150 mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine, Liquified Gas	Disinfection & Oxidation	30 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.

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 20%	Corrosion & Scale Control	250 mg/L
Caustic Soda 25%	Corrosion & Scale Control	200 mg/L
Caustic Soda 50%	Corrosion & Scale Control	100 mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L

Sodium Hydroxide 50% Corrosion & Scale Control 100mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
SNO-GLO BLEACH	Disinfection & Oxidation	105mg/L
Sno-Glo 10% Bleach	Disinfection & Oxidation	105 mg/L
Sodium Hypochlorite 10%	Disinfection & Oxidation	105 mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84 mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

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

**Facility : Kansas City North**

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 20% All Grades	Corrosion & Scale Control	250mg/L
Caustic Soda 25% All Grades	Corrosion & Scale Control	200mg/L
Caustic Soda 50% All Grades	Corrosion & Scale Control	100mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Facility : Kansas City South**

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
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Caustic Soda 20%	Corrosion & Scale Control	250mg/L
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

[1] Trade designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chem Bleach Household	Disinfection & Oxidation	200mg/L
SNO-GLO-BLEACH	Disinfection & Oxidation	105mg/L
Sno-Glo 10%	Disinfection & Oxidation	105mg/L
Sodium Hypochlorite 10%	Disinfection & Oxidation	105mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L
Sodium Hypochlorite 5.25% Solution	Disinfection & Oxidation	200mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 50%	Corrosion & Scale Control pH Adjustment	93mg/L
Sulfuric Acid 66 Degree	Corrosion & Scale Control pH Adjustment	50mg/L

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

**Facility :** St. Louis, MO - Chouteau

**Aluminum Chlorohydrate[AL]**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Brennfloc 4000	Coagulation & Flocculation	250mg/L
Brennfloc BC4105[PY]	Coagulation & Flocculation	31mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

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

#### **Ammonium Hydroxide**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ammonium Hydroxide 19%	Chloramination	10mg/L

#### **Ammonium Sulfate**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Ammonium Sulfate	Chloramination	60mg/L
Ammonium Sulfate Solution	Chloramination	60mg/L

#### **Blended Corrosion Inhibitor**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Robin Phos PO-2	Corrosion & Scale Control Sequestering	20 mg/L

#### **Blended Phosphates**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
AquaPure 3637	Corrosion & Scale Control Sequestering	25mg/L
AquaPure 3655	Corrosion & Scale Control Sequestering	25mg/L
AquaPure 3673	Corrosion & Scale Control Sequestering	25mg/L
AquaPure 3691	Corrosion & Scale Control Sequestering	25mg/L
Robin Phos PO-73	Corrosion & Scale Control Sequestering	25 mg/L

#### **Miscellaneous Chemical Products**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Brennfloc 4220[AL]	Coagulation & Flocculation	250mg/L
Brennfloc 4420[AL] [PY]	Coagulation & Flocculation	100mg/L
Brennfloc 4420H[AL] [PY]	Coagulation & Flocculation	100mg/L
Robin 3000	Coagulation & Flocculation	15mg/L
RobinFloc 1212	Coagulation & Flocculation	15mg/L
Robinfloc 2000[PY]	Coagulation & Flocculation	15mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

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

#### Miscellaneous Water Supply Products

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Citric Acid 30-50%[1] [2]	Membrane Cleaner	NA

[1] This product is designed to be used off-line and flushed out prior to using the system for drinking water, following manufacturer's use instructions.

[2] The pH of the influent and effluent water should be monitored to ensure that all traces of the product have been removed before placing into service.

#### Monosodium Orthophosphate

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
AquaPure 3601	Corrosion & Scale Control	25mg/L

#### Poly (Diallyldimethylammonium Chloride)(pDADMAC)

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Brennfloc CP 7215P	Coagulation & Flocculation	100mg/L
Robin 110	Coagulation & Flocculation	100mg/L
Robin 120	Coagulation & Flocculation	50 mg/L
Robin 220	Coagulation & Flocculation	50mg/L
RobinFloc 4325	Coagulation & Flocculation	100mg/L
RobinFloc 4728	Coagulation & Flocculation	96mg/L

#### Polyaluminum Chloride[AL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aluminum Chloride Hydroxide Aqueous Solution	Coagulation & Flocculation	250 mg/L
Aluminum Chlorohydrate Aqueous Solution	Coagulation & Flocculation	250 mg/L
Brennfloc 4000	Coagulation & Flocculation	250mg/L
Robin AC-100	Coagulation & Flocculation	250 mg/L
RobinFloc 4708	Coagulation & Flocculation	250mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

#### Polymer Blends[AL] [PY]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
AC 2602 PA	Coagulation & Flocculation	50mg/L

Brennfloc BC 4101	Coagulation & Flocculation	66mg/L
Polyaluminum Sulfate	Coagulation & Flocculation	150 mg/L
Polyaluminum Sulfate Polymer Emulsion	Coagulation & Flocculation	150mg/L
Robin AC 110	Coagulation & Flocculation	130 mg/L
Robin AC-3545	Coagulation & Flocculation	50 mg/L
Robin AS-110	Coagulation & Flocculation	150 mg/L
Robin AS-120	Coagulation & Flocculation	150 mg/L
Robin AS-140	Coagulation & Flocculation	100 mg/L
Robin FR-2003	Coagulation & Flocculation	20mg/L
RobinFloc 4707	Coagulation & Flocculation Flocculant	100mg/L
RobinFloc 4714	Coagulation & Flocculation	238mg/L
RobinFloc 4715	Coagulation & Flocculation	156mg/L
RobinFloc 4725	Coagulation & Flocculation	155mg/L
RobinFloc 4740	Coagulation & Flocculation Flocculant	68mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

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

**Sodium Permanganate[MN]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Permanganate	Oxidant	176mg/L
Sodium Permanganate Solution	Oxidant	176mg/L
Sodium Permanganate Solution 15%	Oxidant	235mg/L
Sodium Permanganate Solution 19%	Oxidant	185mg/L

[MN] The finished drinking water should be monitored to ensure that levels of manganese do not exceed .05 mg/L.

**Sodium Polyphosphates, Glassy**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
AquaPure SH 36	Corrosion & Scale Control	25mg/L
Robin Phos P-1	Corrosion Control	28 mg/L
	Sequestering	
SHMP	Corrosion Control	28mg/L
	Sequestering	
Sodium Hexametaphosphate	Corrosion Control	28mg/L
	Sequestering	
Sodium Polyphosphate	Corrosion Control	28mg/L
	Sequestering	

Sodium Polyphosphates Glassy	Corrosion Control Sequestering	28mg/L
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**Facility :** St. Louis, MO - Soper

**Aluminum Sulfate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aluminum Sulfate Liquid	Coagulation & Flocculation	150mg/L
Aluminum Sulfate Solution	Coagulation & Flocculation	150mg/L
Dialuminum Sulfate Solution	Coagulation & Flocculation	150mg/L
Liquid Alum	Coagulation & Flocculation	150mg/L
Polyaluminum Sulfate Solution	Coagulation & Flocculation	150mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

**Ferric Chloride**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferric Chloride 38-42%	Coagulation & Flocculation	250mg/L
Ferric Chloride Liquid	Coagulation & Flocculation	250mg/L
Ferric Chloride Solution	Coagulation & Flocculation	250mg/L
Iron (III) Chloride Solution	Coagulation & Flocculation	250mg/L
Iron Trichloride Solution	Coagulation & Flocculation	250mg/L

**Ferric Sulfate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Ferric Sulfate Solution	Coagulation & Flocculation	500mg/L
Iron (III) Sulfate Solution	Coagulation & Flocculation	500mg/L
Iron Persulfate Solution	Coagulation & Flocculation	500mg/L

**Sodium Hydroxide[1]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 10%	Corrosion & Scale Control pH Adjustment	500mg/L
Caustic Soda 20%	Corrosion & Scale Control pH Adjustment	250mg/L
Caustic Soda 25%	Corrosion & Scale Control pH Adjustment	200mg/L
Caustic Soda 30%	Corrosion & Scale Control pH Adjustment	166mg/L
Caustic Soda 50%	Corrosion & Scale Control pH Adjustment	100mg/L

Sodium Hydroxide 10%	Corrosion & Scale Control pH Adjustment	500mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control pH Adjustment	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control pH Adjustment	200mg/L
Sodium Hydroxide 30%	Corrosion & Scale Control pH Adjustment	166mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control pH Adjustment	100mg/L

[1] Trade Designation may be followed by a three digit alpha suffix to designate the chlor-alkali electrolytic cell category/grade.

**Sodium Permanganate[PO]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Permanganate	Oxidant	176mg/L
Sodium Permanganate 15%	Oxidant	235mg/L
Sodium Permanganate 19%	Oxidant	185mg/L
Sodium Permanganate 20%	Oxidant	176mg/L
Sodium Permanganate 40%	Oxidant	88mg/L
Sodium Permanganate Solution	Oxidant	176mg/L

[PO] The finished drinking water shall be monitored to ensure that levels of manganese do not exceed 0.05 mg/L.

**Sulfuric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 66	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 66 Baumé	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 66Be	Corrosion & Scale Control pH Adjustment	50mg/L
Sulfuric Acid 93%	Corrosion & Scale Control pH Adjustment	50mg/L

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

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Number of matching Manufacturers is 1

Number of matching Products is 525

Processing time was 0 seconds



The Public Health and Safety Organization

## NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, August 02, 2023** at 12:15 a.m. Eastern Time. Please [contact NSF](#) to confirm the status of any Listing, report errors, or make suggestions.

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<http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=C0318434&Standard=060&>

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

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#### Dodhia Chem-Tex Pvt. Ltd.

98/2, Dodhia House, New Mavjil Compound

Narpoli, Behind Ratan Talkies, Dist.

Thane, Bhiwandi, Maharashtra 421302

India

91 996 0864000

[Visit this company's website](#)

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

**Facility :** Maharashtra, India

#### Calcium Hypochlorite[CL]

##### *Trade Designation*

Bleaching Powder

##### *Product Function*

Disinfection & Oxidation

Algicide

##### *Max Use*

13mg/L

Calcium Hypochlorite

Disinfection & Oxidation

Algicide

13mg/L

Calcium Oxychloride

Disinfection & Oxidation

Algicide

13mg/L

Chlorinated Lime

Disinfection & Oxidation

Algicide

13mg/L

Hi Clear

Disinfection & Oxidation

Algicide

13mg/L



Stable Bleaching Powder

Disinfection & Oxidation  
Algicide

13mg/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.

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Number of matching Manufacturers is 1

Number of matching Products is 6

Processing time was 0 seconds



The Public Health and Safety Organization

## NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, August 02, 2023** at 12:15 a.m. Eastern Time. Please [contact NSF](#) to confirm the status of any Listing, report errors, or make suggestions.

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

<http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=36630&Standard=060&>

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

#### Westlake Chemicals & Vinyls LLC

2801 Post Oak Boulevard

Suite 600

Houston, TX 77056

United States

713-960-9111

**Facility :** Sauget, IL

#### Calcium Hypochlorite[CL]

##### *Trade Designation*

##### *Product Function*

##### *Max Use*

Accu-Tab Blue Calcium Hypochlorite Tablets	Disinfection & Oxidation	15mg/L
Accu-Tab Calcium Hypochlorite Tablets	Disinfection & Oxidation	15mg/L
Accu-Tab SI Calcium Hypochlorite Tablets	Disinfection & Oxidation	15mg/L
Accu-Tab Wastewater Tablets	Disinfection & Oxidation	15mg/L
Accu-Tab White Calcium Hypochlorite Tablets	Disinfection & Oxidation	15mg/L
Calcium Hypochlorite	Disinfection & Oxidation	15mg/L
Chloropast 1060	Disinfection & Oxidation	15mg/L
Induclor Calcium Hypochlorite Tablets	Disinfection & Oxidation	15mg/L
Induclor Calcium Hypochlorite Tablets (Indutabs SI)	Disinfection & Oxidation	15mg/L
Induclor Calcium Hypochlorite Tablets (Indutabs)	Disinfection & Oxidation	15mg/L
Indutab SI Calcium Hypochlorite Tablets	Disinfection & Oxidation	15mg/L
Leslie's Power Pro Tabs	Disinfection & Oxidation	15mg/L

PML Pool Management Line Calcium Hypochlorite Tablets	Disinfection & Oxidation	15mg/L
Pittabs	Disinfection & Oxidation	15mg/L
Prestotabs Dry Chlorinating Tablets	Disinfection & Oxidation	15mg/L
Repak Dry Chlorinating Tablets	Disinfection & Oxidation	15mg/L
VersaChlor System Chlorinating Tablets	Disinfection & Oxidation	15mg/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.

**Sodium Bisulfate**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Acid-Rite Tablets	pH Adjustment	500mg/L

**Facility : Plaquemine, LA**

**Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Liquid Chlorine	Disinfection & Oxidation	30mg/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.

**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda 50%	Corrosion & Scale Control	200mg/L
ET-50	Corrosion & Scale Control	200mg/L
Liq Cau Soda ET50 Bulk	Corrosion & Scale Control	200mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	200mg/L

**Facility : Westlake, LA / Lake Charles, LA**

**Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine	Disinfection & Oxidation	30 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.

**Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
HCL	Corrosion & Scale Control pH Adjustment	40mg/L
Hydrochloric Acid	Corrosion & Scale Control pH Adjustment	40mg/L
Hydrogen Chloride	Corrosion & Scale Control pH Adjustment	40mg/L
Muriatic Acid (7-23 Baume)	Corrosion & Scale Control pH Adjustment	40mg/L

**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
CAU SODA PELS 1737 LB BULK BAG	Corrosion & Scale Control	100 mg/L
CAU SODA PELS 2000 LB BULK BAG	Corrosion & Scale Control	100 mg/L
CAU SODA PELS 50 LB BAG	Corrosion & Scale Control	100 mg/L
CAU SODA PELS 500 LB POLY DRUM	Corrosion & Scale Control	100 mg/L
CAU SODA PELS 500 LB S DRUM	Corrosion & Scale Control	100 mg/L
CAU SODA PELS BULK	Corrosion & Scale Control	100 mg/L
Caustic Soda-50%	Corrosion & Scale Control	200 mg/L
ET-50	Corrosion & Scale Control	200mg/L
LIQ CAU SODA-MEM70 BULK	Corrosion & Scale Control	160mg/L
Liquid Caustic Soda-50%	Corrosion & Scale Control	200mg/L
MEM-50	Corrosion & Scale Control	200mg/L
PELS® Caustic Soda Beads	Corrosion & Scale Control	100mg/L
Sodium Hydroxide-50%	Corrosion & Scale Control	200 mg/L

**Facility : Distribution Center - Bayonne, NJ**

**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda-25%	Corrosion & Scale Control	400mg/L
Caustic Soda-50%	Corrosion & Scale Control	200mg/L
LIQ CAU SODA-ET50 BULK	Corrosion & Scale Control	200mg/L
Liquid Caustic Soda-25%	Corrosion & Scale Control	400mg/L
Liquid Caustic Soda-50%	Corrosion & Scale Control	200mg/L
Liquid caustic soda - ET50 Bulk	Corrosion & Scale Control	200mg/L
Sodium Hydroxide-25%	Corrosion & Scale Control	400mg/L

Sodium Hydroxide-50%	Corrosion & Scale Control	200mg/L
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**Facility :** Distribution Center - Philadelphia, PA

**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
ET-50 Diaphragm Grade Liquid Caustic Soda	Corrosion & Scale Control	200mg/L
Liquid Caustic Soda-10%	Corrosion & Scale Control	1000mg/L
Liquid Caustic Soda-12.5%	Corrosion & Scale Control	800mg/L
Liquid Caustic Soda-15%	Corrosion & Scale Control	667mg/L
Liquid Caustic Soda-18%	Corrosion & Scale Control	556mg/L
Liquid Caustic Soda-20%	Corrosion & Scale Control	500mg/L
Liquid Caustic Soda-25%	Corrosion & Scale Control	400mg/L
Liquid Caustic Soda-30%	Corrosion & Scale Control	333mg/L
Liquid Caustic Soda-35%	Corrosion & Scale Control	286mg/L
Liquid Caustic Soda-50%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide-10%	Corrosion & Scale Control	1000mg/L
Sodium Hydroxide-12.5%	Corrosion & Scale Control	800mg/L
Sodium Hydroxide-15%	Corrosion & Scale Control	667mg/L
Sodium Hydroxide-18%	Corrosion & Scale Control	556mg/L
Sodium Hydroxide-20%	Corrosion & Scale Control	500mg/L
Sodium Hydroxide-25%	Corrosion & Scale Control	400mg/L
Sodium Hydroxide-30%	Corrosion & Scale Control	333mg/L
Sodium Hydroxide-35%	Corrosion & Scale Control	286mg/L
Sodium Hydroxide-50%	Corrosion & Scale Control	200mg/L

**Facility :** Longview, WA

**Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine	Disinfection & Oxidation	30mg/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.

**Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
HCL	Corrosion & Scale Control pH Adjustment	40mg/L

Hydrochloric Acid	Corrosion & Scale Control pH Adjustment	40mg/L
Hydrogen Chloride	Corrosion & Scale Control pH Adjustment	40mg/L
Muriatic Acid (7-23 deg Baume)	Corrosion & Scale Control pH Adjustment	40mg/L
<b>Sodium Hydroxide</b>		
<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
Caustic Soda 25%	pH Adjustment Scale Control	400mg/L
Caustic Soda 32%	pH Adjustment Scale Control	312mg/L
Caustic Soda 50%	pH Adjustment Scale Control	200mg/L

**Facility :** New Martinsville (Natrium), WV

**Calcium Hypochlorite[CL]**

<b>Trade Designation</b>	<b>Product Function</b>	<b>Max Use</b>
All-Clear ChlorRight	Disinfection & Oxidation	15mg/L
All-Clear Shock Clear	Disinfection & Oxidation	15mg/L
AmeriChlor Calcium Hypochlorite Granules	Disinfection & Oxidation	15mg/L
Calcium Hypochlorite	Disinfection & Oxidation	15 mg/L
Freestyle Calcium Hypochlorite Granular	Disinfection & Oxidation	15 mg/L
Induclor 70 Calcium Hypochlorite Granules	Disinfection & Oxidation	14 mg/L
Induclor Dry Chlorinating Granules	Disinfection & Oxidation	15 mg/L
Leslie's Power Powder Pro	Disinfection & Oxidation	14 mg/L
Omega Calcium Hypochlorite Granules	Disinfection & Oxidation	15mg/L
Pittclor Dry Chlorinating Granules	Disinfection & Oxidation	15 mg/L
Prestoclor Dry Chlorinating Granules	Disinfection & Oxidation	15 mg/L
Re-Fresh Dry Chlorinating Granular	Disinfection & Oxidation	15mg/L
Regal Calcium Hypochlorite Granules	Disinfection & Oxidation	15 mg/L
Repak + Dry Chlorinating Granules	Disinfection & Oxidation	14 mg/L
Repak Dry Chlorinating Granules	Disinfection & Oxidation	15 mg/L
Vanguard Plus Calcium Hypochlorite Granules	Disinfection & Oxidation	15 mg/L
Zappit 73 Calcium Hypochlorite Granules	Disinfection & Oxidation	14mg/L
Zappit Dry Chlorinating Granules	Disinfection & Oxidation	15 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.

**Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine	Disinfection & Oxidation	30 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.

**Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
HCL	Corrosion & Scale Control Scale Control	40mg/L
Hydrochloric Acid	Corrosion & Scale Control Scale Control	40mg/L
Hydrogen Chloride	Corrosion & Scale Control Scale Control	40mg/L
Muriatic Acid (7-23 deg Baume)	Corrosion & Scale Control Scale Control	40mg/L

**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda-50%	Corrosion & Scale Control	200 mg/L
DHT50	Corrosion & Scale Control	200mg/L
ET-50	Corrosion & Scale Control	200mg/L
Liquid Caustic Soda-50%	Corrosion & Scale Control	200mg/L
MC-50	Corrosion & Scale Control	200mg/L
Pels® Caustic Soda Beads	Corrosion & Scale Control	100mg/L
Pels® Plus Caustic Soda Beads	Corrosion & Scale Control	100mg/L
Sodium Hydroxide-50%	Corrosion & Scale Control	200 mg/L

**Facility :** Beauharnois, Québec, Canada

**Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine	Disinfection & Oxidation	30 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.

**Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid	Corrosion & Scale Control	40 mg/L
Muriatic Acid	Corrosion & Scale Control	40 mg/L

**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda Liq-mem 50	Corrosion & Scale Control	200 mg/L
LIQ CAU SODA-MEM20 BULK	Corrosion & Scale Control	500mg/L
Liquid Caustic Soda 20%	Corrosion & Scale Control	500mg/L
Liquid Caustic Soda-50%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide Solution	Corrosion & Scale Control	200 mg/L

**Sodium Hypochlorite[HY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hypochlor de sod	Disinfection & Oxidation	88mg/L
Hypochlorite, en solution	Disinfection & Oxidation	88mg/L

[HY] 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. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

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Number of matching Manufacturers is 1

Number of matching Products is 117

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