FY25 Contracts: Chemical Purchases from Bay Area Chemical Consortium (BACC)
[Published for 10-day Review on 06/07/2024]

File ID: 2024-01038

Location: Citywide

Recommendation: Pass a Motion awarding one-year contracts from July 1, 2024 through June 30, 2025 to: 1) Chemtrade Chemicals US LLC for the purchase of Aluminum Sulfate in an amount not-to-exceed $1,000,000; 2) Thatcher Company of California, Inc. for the purchase of Liquid Chlorine in an amount not-to-exceed $1,000,000; 3) Pencco, Inc. for the purchase of Hydrofluosilicic Acid in the amount not-to-exceed $200,000; 4) Univar Solutions USA, LLC. for the purchase of Sodium Hydroxide in the amount not-to-exceed $60,000; 5) Thatcher Company of California, Inc. for the purchase of Sodium Bisulfite in an amount not-to-exceed $200,000; and 6) Pioneer Americas LLC wholly subsidiary of Olin Corporation for the purchase of Sodium Hypochlorite in an amount not-to-exceed $450,000.

Contact: Nathalie Redenbaugh, Administrative Analyst, (916) 808-7116, nredenbaugh@cityofsacramento.org; Deanne Neighbours, Logistics Manager, (916) 808-3536, dneighbours@cityofsacramento.org; David Herrmann, Water Division Manager, (916) 808-5652, dherrmann@cityofsacramento.org; Charley Cunningham, Wastewater and Drainage Division Manager, (916) 808-5518, ccunningham@cityofsacramento.org; Pravani Vandeyar, Director, (916) 808-3765, pvandeyar@cityofsacramento.org; Department of Utilities

Presenter: None

Attachments:
1-Description/Analysis
2-PRC002816_Chemtrade (Aluminum Sulfate, $1,000,000)
3-PRC002840_Thatcher (Liquid Chlorine, $1,000,000)
4-PRC002841_Pencco, Inc. (Hydrofluosilicic Acid, $200,000)
5-PRC002849_Univar (Sodium Hydroxide, $60,000)
6-PRC002848_Thatcher (Sodium Bisulfite, $200,000)
7-PRC002850_Olin Corp. (Sodium Hypochlorite, $450,000)
Description/Analysis

Issue Detail: The Department of Utilities (DOU) operates two water treatment plants and various facilities for wastewater treatment. As part of the treatment process, multiple chemicals are used, including: Aluminum Sulfate, Liquid Chlorine, Hydrofluosilicic Acid, Sodium Hydroxide, Sodium Bisulfite, and Sodium Hypochlorite. DOU has an ongoing need to maintain sufficient inventory of these chemicals to ensure uninterrupted service to customers. The prices for these contracts have been bid on behalf of DOU by the Bay Area Chemical Consortium (BACC).

Policy Considerations: City Code Section 3.56.240 authorizes the City Manager, by cooperative purchasing agreements approved by the City Council, to purchase supplies through legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City.

The Sacramento City Code Section 4.04.020 and Council Rules of Procedure (Chapter 7, Section E.2.d) mandate that unless waived by a 2/3 vote of the City Council, all labor agreements, and all agreements greater than $1,000,000 shall be made available to the public at least ten (10) days prior to council action. This item was published for 10-day review on June 7, 2024, in compliance with the City Code.

Economic Impacts: None.

Environmental Considerations: California Environmental Quality Act (CEQA): The purchase and use of chemicals is an ongoing activity at the City’s water and wastewater plants. The use of these chemicals is regulated by State permit requirements. The Community Development Department, Environmental Services Manager has determined that the proposed activity is not a project pursuant to the California Environmental Quality Act (CEQA). CEQA Guidelines Section 15378(b). The activity is a continuing administrative or maintenance activity, such as the purchase of supplies, and is not subject to CEQA. CEQA Guidelines Section 15060(c)(3).

Sustainability: Chemicals purchased under these contracts comply with Section 8 of the City’s Sustainability Master Plan as they facilitate the continued treatment and protection of the City’s drinking water.

Commission/Committee Action: Not Applicable.

Rationale for Recommendation: Per historical data, the prices for these chemicals obtained through the BACC bid process are lower than prices the City would have been able to obtain bidding on its own.

The not-to-exceed amounts of these contracts are based on DOU’s previous experience purchasing chemicals using the BACC bidding process.
Use of this cooperative agreement is in the City’s best interest because by purchasing chemicals through the BACC, the City is able to combine its bid solicitations for these chemicals into one annual bidding process. BACC is an informal cooperative among approximately 60 public water and wastewater agencies working together to purchase chemicals which yield more competitive pricing from vendors.

Financial Considerations:
Sufficient funds exist in the proposed FY2024/25 DOU Operating Budget to fund the agreements, please see table below for more details. Funding for future fiscal years shall be subject to funding availability in the adopted budgets for the applicable fiscal year.

There are no General Funds allocated or planned for this project.

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Chemical</th>
<th>Contract Amount</th>
<th>Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemtrade Chemical US LLC</td>
<td>Aluminum Sulfate</td>
<td>$1,000,000</td>
<td>6005</td>
</tr>
<tr>
<td>Thatcher Company of California, Inc.</td>
<td>Liquid Chlorine</td>
<td>$1,000,000</td>
<td>6005</td>
</tr>
<tr>
<td>Pencco, Inc.</td>
<td>Hydrofluosilic Acid</td>
<td>$200,000</td>
<td>6005</td>
</tr>
<tr>
<td>Univar Solutions USA, LLC</td>
<td>Sodium Hydroxide</td>
<td>$60,000</td>
<td>6005</td>
</tr>
<tr>
<td>Thatcher Company of California, Inc.</td>
<td>Sodium Bisulfite</td>
<td>$200,000</td>
<td>6006</td>
</tr>
<tr>
<td>Pioneer Americas LLC wholly subsidiary of Olin Corporation</td>
<td>Sodium Hypochlorite</td>
<td>$450,000</td>
<td>6006</td>
</tr>
</tbody>
</table>

Local Business Enterprise (LBE): The City’s LBE bid requirements do not apply because the City is using an alternative procurement process and did not conduct the bidding process.
CITY OF SACRAMENTO
ADDITIONAL TERMS AND CONDITIONS
COOPERATIVE PURCHASE AGREEMENT

The City of Sacramento ("City") and CHEMTRADE CHEMICALS US LLC ("Contractor"), hereby agree to these Additional Terms and Conditions ("Additional Terms"), effective JULY 1, 2024.

WHEREAS, Contractor is an authorized dealer for CHEMTRADE CHEMICALS US LLC, which entered into Contract No. PRC002816 for ALUMINUM SULFATE with the BAY AREA CHEMICAL CONSORTIUM (BACC), dated JULY 1, 2024 ("Cooperative Contract"), in which Contractor agreed to sell ALUMINUM SULFATE to governmental agencies that are members of BACC’S Cooperative Purchasing Program ("Participating Public Agencies"); and

WHEREAS, the City wishes to purchase ALUMINUM SULFATE, pursuant to the terms of the Cooperative Contract and these Additional Terms.

NOW THEREFORE, Contractor and the City agree as follows:

1. The City agrees to purchase, pursuant to the terms of the Cooperative Contract, ALUMINUM SULFATE as set forth in Quotation No. 01-2024.

2. The City shall have all the same rights and obligations as BACC under the Cooperative Contract. The terms of the Cooperative Contract shall apply to this purchase and shall control over any contrary terms included in the attached quotation.

3. Contractor agrees that the equipment shall be delivered to the City no later than SPECIFIED IN DELIVERY DETAILS FROM BID 01-2024.

4. Contractor warrants and represents that the person or persons executing this Agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this contract supplement and bind Contractor to the terms hereof.

5. Except as specifically modified herein, all terms and conditions of the Cooperative Contract shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by these Additional Terms.
## Bid Results for Project 01-2024 ALUMINUM SULFATE

**Bid Due on February 22, 2024  4:00 PM (PDT)**

### SINGLE BID AWARD

<table>
<thead>
<tr>
<th>Section</th>
<th>Central Valley</th>
<th>East Bay</th>
<th>North Bay</th>
<th>Sacramento</th>
<th>South Bay</th>
<th>Tri Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit of Measure</td>
<td>gal</td>
<td>gal</td>
<td>gal</td>
<td>gal</td>
<td>gal</td>
<td>gal</td>
</tr>
<tr>
<td>Univar Solutions USA Inc.</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
</tr>
<tr>
<td>Chemtrade Chemicals, LLC US</td>
<td>0.8403</td>
<td>0.8403</td>
<td>0.8403</td>
<td>0.8403</td>
<td>0.8403</td>
<td>0.8403</td>
</tr>
<tr>
<td>Thatcher Company of California, Inc.</td>
<td>0.9100</td>
<td>0.9100</td>
<td>0.9100</td>
<td>0.8500</td>
<td>1.1100</td>
<td>0.9100</td>
</tr>
</tbody>
</table>

### 2.16 Method of Award

Bids may be awarded to the lowest responsive and responsible bidder meeting the specifications for bulk loads for the chemical. The lowest responsive bidder will be determined by multiplying the estimated annual quantity for each participating BACC agency by the bid price for their region and adding up the aggregate cost to all of the participating agencies in the regions. The single bid that results in the lowest overall cost to the participating agencies as a group will be determined by BACC to be the low bid, assuming the bid is determined by BACC to be complete and in compliance with the bid requirements. BACC has the right to delete terms or options from the bid contract documents and reserves the right to reject any and all bids and to waive irregularities in said bids.

### Single Bid Award

<table>
<thead>
<tr>
<th>Aggregate Cost Calculation;</th>
<th>Central Valley</th>
<th>East Bay</th>
<th>North Bay</th>
<th>Sacramento</th>
<th>South Bay</th>
<th>Tri Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual quantity</td>
<td>210,788</td>
<td>160,000</td>
<td>1,215,900</td>
<td>1,231,000</td>
<td>750,000</td>
<td>902,000</td>
</tr>
<tr>
<td>Univar Solutions USA Inc.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Chemtrade Chemicals, LLC US</td>
<td>$177,125.16</td>
<td>$134,448.00</td>
<td>$1,021,720.77</td>
<td>$1,034,409.30</td>
<td>$630,225.00</td>
<td>$757,950.60</td>
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<tr>
<td>Thatcher Company of California, Inc.</td>
<td>$191,817.08</td>
<td>$145,600.00</td>
<td>$1,106,469.00</td>
<td>$1,046,350.00</td>
<td>$832,500.00</td>
<td>$820,820.00</td>
</tr>
</tbody>
</table>

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**Bay Area Clean Water Agencies**

**Bid Results for Project 01-2024 ALUMINUM SULFATE**

**Bid Due on February 22, 2024  4:00 PM (PDT)**
Bay Area Clean Water Agencies
Bid Results for Project 01-2024 ALUMINUM SULFATE
Bid Due on February 22, 2024 4:00 PM (PDT)

<table>
<thead>
<tr>
<th>Item #</th>
<th>BACC RECOMMENDATION</th>
<th>Chemtrade Chemicals, LLC US</th>
<th>Thatcher Company of California, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Received on bid platform by bid deadline above</td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>2</td>
<td>Bids submitted on forms provided</td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>3</td>
<td>Must include a base unit price for each geographic area</td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>4</td>
<td>Additional charges for &quot;short load&quot; deliveries shown as a standard deviation on bid form</td>
<td><strong>Y - see below</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>5</td>
<td>References: minimum of 3</td>
<td><strong>N</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>6</td>
<td>Product Specification Deviations - if any, proposed specification must be attached</td>
<td><strong>N</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>7</td>
<td>Fully Executed Standard Agreement</td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>8</td>
<td>Fully Executed Non-Collusion Affidavit</td>
<td><strong>Y</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>9</td>
<td>For potable application only: Affidavit of Compliance to AWWA and/or NSF standard or Statement by chemical manufacturer, signed on letterhead attesting to the affidavit's validity or current printout from NSF.org</td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>10</td>
<td>Representative lab analysis of the chemical prepared by reputable outside laboratory or ISO Certified</td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>11</td>
<td>Name/Address of chemical manufacturer</td>
<td><strong>N</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>12</td>
<td>Product Bulletin and Typical Properties</td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>13</td>
<td>Safety Data Sheet (SDS)</td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>14</td>
<td>Addendum/Addenda Acknowledgement</td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>15</td>
<td>Third Party Hauler? If applicable, name, address, Affidavit signed by Bidder</td>
<td><strong>N</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>16</td>
<td>Specific Deviations Noted</td>
<td><strong>Y - See below</strong></td>
<td><strong>Y - See below</strong></td>
</tr>
</tbody>
</table>

#4 & #16 ChemTrade

## Specific Deviations

- This box must be checked if bidder has any proposed specific deviations. For Section 2.1.2, Proposed Deviations from the Standard Agreement, provide a copy of the standard agreement and a list of any deviations.
- A copy of the standard agreement and a list of any deviations must be attached to this bid.
- Describe any specific deviations below. A copy of the proposed specifications must be attached to the standard agreement at the time of submission, with bidder's name clearly shown on each document.

## Addendum/Addenda

- If applicable, name and address of third party hauler and Affidavit signed by Bidder.
- Specific deviations not noted.

## Third Party Hauler?

- If applicable, provide name, address, and Affidavit signed by Bidder.

## Attached Documents

- Product Bulletin and Typical Properties
- Safety Data Sheet (SDS)
- Addendum/Addenda Acknowledgement
- Third Party Hauler? Yes, name, address, Affidavit signed by Bidder

## Additional Information

- For potable application only: Affidavit of Compliance to AWWA and/or NSF standard or Statement by chemical manufacturer, signed on letterhead attesting to the affidavit's validity or current printout from NSF.org.
- Representative lab analysis of the chemical prepared by reputable outside laboratory or ISO Certified.
- Name/Address of chemical manufacturer.

## Addendum/Addenda

- If applicable, name, address, and Affidavit signed by Bidder.

## Specific Deviations

- Describe the specific deviations below. A copy of the proposed specifications must be attached to the standard agreement at the time of submission, with bidder's name clearly shown on each document.

## Third Party Hauler?

- If applicable, provide name, address, and Affidavit signed by Bidder.

## Additional Information

- For potable application only: Affidavit of Compliance to AWWA and/or NSF standard or Statement by chemical manufacturer, signed on letterhead attesting to the affidavit's validity or current printout from NSF.org.
- Representative lab analysis of the chemical prepared by reputable outside laboratory or ISO Certified.
- Name/Address of chemical manufacturer.
Sealed bids must be submitted in a PDF format and bidders must enter bid prices into the electronic bid platform (Line Item page)

https://bacwa.org/about-bacc/

No later than 4:00 PM. PT Thursday, February 22, 2024

Legal Name of Bidder: 
CHEMTRADE CHEMICALS US LLC

Business Address  
90 EAST HALSEY ROAD, SUITE 200  
PARSIPPANY, NJ 07054

Telephone Number: 800-441-2659  
Facsimile Number: 973-515-4461  
Email Address: bids@chemtradelogistics.com

Authorized Representative (Please Print): 
ELIZABETH RYNO, MARKETING SPECIALIST

Signature: 
Date: FEBRUARY 15, 2024

I. All costs except California State sales tax for the purchase of ALUMINUM SULFATE must be included in the amount shown entered into the electronic bid platform (Line Item page), including any and all mill assessments, fees, excise taxes, transportation charges, etc. Any exceptions to the bid must be noted under Specific Deviations on the Standard Agreement. Bidders shall submit bids per unit of measure as specified in the electronic bid platform (Line Item page).

II. Bidders must submit all of the following attached to this Bid Form:  
a. All requirements listed in Section 2.21 Manufacturer’s Info.  
b. If applicable, the name, address, and contact information for the third party hauling company as well as an affidavit signed by the Bidder that the third party hauler can and will deliver the chemical to each and every participating BACC Agency.

III. Bidder Obligations  
By signing this Bid Form and entering into individual purchase orders, purchase agreements and/or contracts with BACC agencies, the bidder expressly agrees to be bound by all the provisions of the bid solicitation, including Sections I-IV.
Bay Area Chemical Consortium
Bid Number: 01-2024 Liquid Aluminum Sulfate
Opening: February 22, 2024 @ 4:00 p.m.

SUBCONTRACTOR UTILIZATION

Please note that Chemtrade Chemical’s Liquid Aluminum Sulfate manufacturing plant located in Pittsburg, CA. Product is typically shipped through our third-party carrier. Their information is as follows:

Chemical Transfer
1033 Stokes Avenue
Stockton, CA 95215
Phone: (209) 943-2639

Chemical Transfer has a long-standing relationship with Chemtrade Chemicals and meets all of our security and safety standards and due diligence in performing personnel background checks is in compliance. We further certify that this 3rd party carrier can haul and deliver the required chemicals to every participating BACC Agency.

Should you have any questions or concerns, please feel free to contact me.

Sincerely,

Elizabeth Ryno
Marketing Specialist
Phone: (973) 515-1858
Email: bids@ChemtradeLogistics.com
BAY AREA CHEMICAL CONSORTIUM
STANDARD AGREEMENT, PAGE 1 OF 2
BID NO. 01-2024
SUPPLY AND DELIVERY OF ALUMINUM SULFATE

I hereby agree to furnish ALUMINUM SULFATE identified in the attached bid forms, as solicited by the Bay Area Chemical Consortium (BACC), to one or more of the participating BACC Agencies.

Company: CHEMTRADE CHEMICALS US LLC
Address: 90 EAST HALSEY ROAD, SUITE 200
City, State, ZIP: PARSIPPANY, NJ 07054
Phone: 800-441-2659
Email: bids@chemtrade.logistics.com
Authorized Representative: ELIZABETH RYNO, MARKETING SPECIALIST
Signature: [Signature]
Date: FEBRUARY 15, 2024

WE ACKNOWLEDGE RECEIVING ADDENDUM/ADDENDA NUMBER 1 THROUGH 1.

SPECIFIC DEVIATIONS:

X This box must be checked if bidder has any proposed specific deviations. Per Section 2.12 Proposed Deviations from the Specifications by the Bidder, the absence of a proposed changed in the specifications will hold the bidder strictly accountable to the specifications as described in the bid document, including any addendum.

Describe the specific deviations below. A copy of the proposed specifications must be attached to this Standard Agreement at the time of submission, with bidder’s name clearly shown on each document.

PLEASE NOTE AN ADDITIONAL $0.68/GALLON WILL BE ASSESSED FOR ALUMINUM SULFATE LOADS OF LESS THAN 2,000 GALLONS.
STANDARD AGREEMENT, PAGE 2 OF 2

BIDDER INFORMATION

1. Legal Name of Bidder: CHEMTRADE CHEMICALS US LLC

2. Bidder’s Street Address: 90 EAST HALSEY ROAD, SUITE 200, PARSIPPANY, NJ 07054

3. Mailing Address: 90 EAST HALSEY ROAD, SUITE 200, PARSIPPANY, NJ 07054

4. Business Telephone: 800-441-2659 Fax Number: 973-515-4461

5. Type of Supplier: ☐ Sole Proprietor ☐ Partnership ☐ Corporation ☐ LLC
   If Corporation, indicate State where incorporated: DELAWARE

6. Business License Number issued by the City where the Supplier’s principal place of business is located.
   Number: 003910 Issuing City: COUNTY OF CONTRA COSTA

7. Supplier Federal Tax Identification Number: 74-3104940

8. Emergency Contact: Name: SHAWN HIRE, SENIOR ACCT MANAGER
   Phone Number: 816-518-2877

9. Order Contact: Name: HENSLEY DEROUFEUR
   Address: 155 GORDON BAKER RD, STE 300, TORONTO, ON M2H 3N5
   Phone Number: 833-644-4717 Fax Number: 514-640-4858
   Email: MTlcsr@chemtradelogistics.com

10. References: ** PLEASE SEE ATTACHED **

    Company/Agency Name Contact Name Phone Number
    1) ____________________________ ____________________________ ____________________________
    2) ____________________________ ____________________________ ____________________________
    3) ____________________________ ____________________________ ____________________________

11. Chemical Manufacturer’s name and address (if different from Bidder):
    CHEMTRADE SOLUTIONS LLC (same company)
    501 NICHOLS ROAD, PITTSBURG, CA 94565
REFERENCES:

The following is a list of 3 customers Chemtrade Chemicals US LLC currently supplies with Liquid Aluminum Sulfate for the 2022 and 2023 calendar years (and prior).

If more specific information is needed, please contact our office at 1-800-441-2659.

City of Fairfield
1000 Webster Street
Fairfield, CA 94533
Contact: Allan Brown
Phone: (707) 428-7680 Ext. 103
Email: abrown@ci.fairfield.ca.us
c/o: North Bay
Contact: John Alexander, Phone: (530) 747-8283, Email: nbacp@cityofdavis.org

Central Coast Water Authority
255 Industrial Way
Buellton, CA 93427
Contact: Darin Dargatz
Phone: (805) 975-0113
Email: dod@ccwa.com

City of Fresno
2600 Fresno Street
Fresno, CA 93706
Contact: James Jackson
Sr. Procurement Specialist
Phone: (559) 621-1165
Email: james.jackson2@fresno.gov
ADDENDUM NO. 1
REQUEST FOR BIDS
BAY AREA CHEMICAL CONSORTIUM (BACC) BID NO. 01-2024
FOR SUPPLY AND DELIVERY OF ALUMINUM SULFATE
Addendum Issue Date: February 16, 2024

TO ALL BIDDERS: The purpose of this Addendum is to make changes, additions, deletions, revisions, and clarifications to the bid mentioned above. The changes incorporated in the Addendum shall be considered as a part of the document and shall supersede, amend, add to, and/or subtract from those conditions shown in the original bid.

Acknowledgement: Bidders must acknowledge receipt of any and all Addenda in the space provided on the Standard Agreement of the bid document. Failure to do so may subject the Bidder to disqualification. All requirements of the bid documents remain unchanged except as cited herein.

ADDENDUM ITEMS:

1) Section/Page: Section III – 1 Estimated Quantities / Page 25
   Estimated Annual Qty for Rancho Murieta Community Services District Wastewater CORRECTED TO 36,000 gallons.
   Revised Section III – 1 Estimated Quantities / page 25 is attached.

Bid opening date of February 22, 2024, remains unchanged.

END OF ADDENDUM NO. 1
# BAY AREA CHEMICAL CONSORTIUM

## ESTIMATED ANNUAL QUANTITIES FOR FISCAL YEAR 2024/2025

**BID NO. 01-2024**

<table>
<thead>
<tr>
<th>Aluminum Sulfate 44%-49% Liquid Solution</th>
<th>Unit of Measure</th>
<th>Estimated Annual Qty for Treatment Applications:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>gal</td>
<td>Water</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,008,788</td>
</tr>
</tbody>
</table>

### Central Valley
- Stanislaus Regional Water Authority
  - Unit of Measure: gal
  - Estimated Annual Qty: 210,788 gal
  - Treatment Application: 0 gal

### East Bay
- Alameda County Water District
  - Unit of Measure: gal
  - Estimated Annual Qty: 160,000 gal
  - Treatment Application: 0 gal

### North Bay
- Central Contra Costa Sanitary District
  - Unit of Measure: gal
  - Estimated Annual Qty: 0 gal
  - Treatment Application: 50,000 gal
- City of Antioch
  - Unit of Measure: gal
  - Estimated Annual Qty: 530,000 gal
  - Treatment Application: 0 gal
- City of Martinez
  - Unit of Measure: gal
  - Estimated Annual Qty: 150,000 gal
  - Treatment Application: 0 gal
- City of Pittsburg
  - Unit of Measure: gal
  - Estimated Annual Qty: 125,000 gal
  - Treatment Application: 0 gal
- Delta Diablo Sanitation District
  - Unit of Measure: gal
  - Estimated Annual Qty: 0 gal
  - Treatment Application: 340,000 gal
- Ironhouse Sanitary District
  - Unit of Measure: gal
  - Estimated Annual Qty: 0 gal
  - Treatment Application: 20,000 gal
- Town of Discovery Bay CSD
  - Unit of Measure: gal
  - Estimated Annual Qty: 0 gal
  - Treatment Application: 900 gal

### Sacramento
- City of Roseville
  - Unit of Measure: gal
  - Estimated Annual Qty: 200,000 gal
  - Treatment Application: 0 gal
- City of Sacramento
  - Unit of Measure: gal
  - Estimated Annual Qty: 628,000 gal
  - Treatment Application: 0 gal
- City of Yuba City
  - Unit of Measure: gal
  - Estimated Annual Qty: 200,000 gal
  - Treatment Application: 0 gal
- Nevada Irrigation District
  - Unit of Measure: gal
  - Estimated Annual Qty: 140,000 gal
  - Treatment Application: 0 gal
- Rancho Murieta Community Services District
  - Unit of Measure: gal
  - Estimated Annual Qty: 27,000 gal
  - Treatment Application: 36,000 gal

### South Bay
- City of Sunnyvale
  - Unit of Measure: gal
  - Estimated Annual Qty: 0 gal
  - Treatment Application: 530,000 gal
- City of Watsonville
  - Unit of Measure: gal
  - Estimated Annual Qty: 0 gal
  - Treatment Application: 200,000 gal
- San Jose - Santa Clara Regional Wastewater Facility
  - Unit of Measure: gal
  - Estimated Annual Qty: 0 gal
  - Treatment Application: 20,000 gal

### Tri Valley
- Dublin San Ramon Services District
  - Unit of Measure: gal
  - Estimated Annual Qty: 638,000 gal
  - Treatment Application: 264,000 gal
- Zone 7 Water Agency
  - Unit of Measure: gal
  - Estimated Annual Qty: 0 gal
  - Treatment Application: 638,000 gal
  - Treatment Application: 264,000 gal
Non-Collusion Affidavit
To Be Executed By Bidder and Submitted With Bid

NEW JERSEY

State of California

County of MORRIS

ELIZABETH RYNO, being first duly sworn, deposes and says that he or she is the
(Bidder's Authorized Representative)

MARKETING SPECIALIST of CHEMTRADE CHEMICALS US LLC the party making the
>Title of Representative)

(Legal Name of Bidder)

foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person,
partnership, company, association, organization, or corporation; that the bid is genuine and not collusive
or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a
false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any
bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has
not in any manner, directly or indirectly, sought by agreement, communication, or conference with
anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element
of the bid price, or of that of any other bid, or to secure any advantage against the public body awarding
the contract of anyone interested in the proposed contract; that all statements contained in the bid are
true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any
breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and
will not pay, any fee to any corporation, partnership, company association, organization, bid depository,
or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the state of California that the foregoing is true and
correct.

Signature of: President, Secretary,
Manager, Owner, or Representative

ELIZABETH RYNO
MARKETING SPECIALIST

Subscribed and sworn to before me this, day of FEBRUARY 20 24

Signature of Notary Public In and For

The County of

State of

All Signatures Must Be Witnessed By Notary
DELEGATION OF AUTHORITY

I, Scott Rook, President and Chief Executive of Chemtrade Chemicals US LLC, a Delaware limited liability company ("Chemtrade"), do hereby delegate and appoint the following agents of Chemtrade to execute all municipal contracts and instruments, including bids, proposals and quotations, which in the ordinary course of business are processed by the Marketing Group of the company:


Set forth below is a certified copy of the resolution of Chemtrade authorizing such action.

Dated as of the 21st day of February, 2023

Scott Rook
President and Chief Executive Officer

CERTIFICATE OF SECRETARY

I, Susan Pare, hereby certify that I am the Corporate Secretary of Chemtrade Chemicals US LLC ("Chemtrade") and that set forth below is a true and correct copy of the resolution of the Board of Managers of Chemtrade, adopted by unanimous written consent as of the 10th day of November, 2003 and that the same has not been modified or revoked and is on the date hereof in full force and effect:

RESOLVED that any officer of the Company be, and he hereby is, authorized to delegate, with the right of further delegation, to any other officer, employee or agent of the Company, all or any part of the authority granted to them by the Board of Managers; and that any such delegations may be general or specific and subject to such limitations and restrictions as the delegating officer shall determine.

I FURTHER CERTIFY that Scott Rook is the duly elected President and Chief Executive Officer of Chemtrade and holds such offices on the date hereof, that Mr. Rook is, in his capacity as President and Chief Executive Officer is authorized to represent and bind Chemtrade in all matters including, but not limited to, contracts and that set forth below is the genuine signature of such officer:

Scott Rook
President and Chief Executive Officer

IN WITNESS WHEREOF, I have hereunto set my hand and have caused the seal of the Company to be affixed effective this 21st day of February, 2023.

Seal

Susan Pare
Corporate Secretary
Bay Area Chemical Consortium
Bid Number: 01-2024 Liquid Aluminum Sulfate
Opening: February 22, 2024 @ 4:00 p.m.

MANUFACTURING & SHIPPING INFORMATION:

Please note that the products included in this bid are manufactured in the United States of America. Chemtrade Chemicals will be manufacturing and shipping this material from our USA plant. Please see below for the exact address:

Bay Point Works
501 Nicholas Road
Pittsburg, CA 94565

Ph: (925) 458-7300
Fax: (925) 458-7352

If you have any questions or concerns, please feel free to contact me.

Sincerely,

Elizabeth Ryno
Marketing Specialist
Ph: (973) 515-1858
bids@ChemtradeLogistics.com
ORDER CONTACT, EMERGENCY CONTACT AND TECHNICAL SERVICE INFORMATION

Normal operating business hours are Monday – Friday 8:00 AM to 5:00 PM E.S.T.

To place orders, contact your Customer Service Representative:

Name: Hensley Derougeur
Phone: 1-833-644-4717
E-mail: mt1csr@chemtradelogistics.com
Fax: (514) 640-4858

After normal business hours, for emergencies and orders please call 1-514-513-7401 and the on-call Customer Service Representative will be available to assist you. This number will also be provided if you call the regular Customer Service line.

For Technical Service please call (315) 478-2323 or visit our website at: http://www.chemtradelogistics.com

Corporate/Sales Office
Chemtrade Chemicals US, LLC
90 East Halsey Road
Parsippany, NJ 07054

Michele Schroehrer, Pricing Mgr.
Phone: (973) 515-1841
Email: Mschroehrer@chemtradelogistics.com

Shawn Hire, Senior Account Mgr.
Mobile: (816) 518-2877
Email: Shire@chemtradelogistics.com

For Bid/Contract Information:
Elizabeth Ryno
Phone: (800) 441-2659
Direct: (973) 515-1858
Fax: 973-515-4461
Breyno@chemtradelogistics.com
bids@chemtradelogistics.com
WARRANTY INFORMATION

Chemtrade Chemicals will accept return of material and replace material. Samples will be taken of material and analyzed. Any material that is off-spec as a result of a Chemtrade's production error will be replaced without cost to customer. If product damage is a result of transporation, we will then partner with our carrier to pursue the cause of the problem and develop a resolution in the best interest of the customer.
PRODUCT CERTIFICATION

Chemtrade Chemicals certifies that all grades of Aluminum Sulfate as produced by our manufacturing locations will meet National Sanitation Foundation Standard 60 and ANSI/AWWA B 403-16 standard in every respect.

Additionally, we certify that the product meets or exceeds the specifications as set forth in the BACC bid.

Safety Data Sheet, NSF Certification and related technical information is attached for review.

Elizabeth Ryno
Marketing Specialist
To: BAY AREA CHEMICAL CONSORTIUM
cc: Beth Ryno

Lab. Log # 2121501-01

SAMPLES: Liquid Alum, Standard (hydrate)

ORIGIN: Baypoint

All analyses are reported as PPM unless stated otherwise

<table>
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<th>PARAMETER</th>
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<th>PARAMETER</th>
<th>Concentration</th>
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<td>% Al2O3 (total by wt)</td>
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<tr>
<td>Ba</td>
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<td>% Insolubles (by wt)</td>
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</table>

NOTES:
Product within specification for all parameters analyzed.

Analysts
Ana Ickes
Stephanie Ulman

Record 44944.649

Report Date 4/24/2023
BR 2/16/2024
Liquid Alum

PRODUCT DATA SHEET

CHARACTERISTICS
Liquid Alum is a clear, light green, slight yellow, brown, amber or orange-like tinted solution. It is a cationic inorganic coagulant and flocculant suitable for industrial and municipal water and wastewater treatment applications.

NSF/ANSI/CAN Standard 60: Drinking Water Chemicals - Health Effects; Certified

TYPICAL PROPERTIES
Formula: Aqueous solution of aluminum sulfate
C.A.S. 10043-01-3 (Aluminum sulfate)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (neat)</td>
<td>1.4 - 2.6</td>
</tr>
<tr>
<td>Specific Gravity @ 21°C (70°F)</td>
<td>1.30 - 1.35</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>-16°C (4°F)</td>
</tr>
<tr>
<td>Density, lbs./gal., US</td>
<td>10.8 - 11.3</td>
</tr>
<tr>
<td>Aluminum as Al, %</td>
<td>4.2 - 4.5</td>
</tr>
<tr>
<td>Aluminum as Al₂O₃, %</td>
<td>8.0 - 8.4</td>
</tr>
<tr>
<td>Aluminum as Al₂(SO₄)₃•14H₂O (Dry Alum), %</td>
<td>46 - 49</td>
</tr>
</tbody>
</table>

PRODUCT USES

SHIPPING CONTAINERS
Bulk transport: 275 US gal., one-way container
Bulk car: 55 US gal., plastic drum

SHIPPING REGULATIONS (US DOT / TDG)
Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Aluminum Sulfate)
Hazard Class: 8
ID Number: UN3264
Packing Group: III
The US EPA reportable quantity (RQ) for aluminum sulfate is 5,000 lbs.

PRODUCT SAFETY INFORMATION
Anyone procuring, using or disposing of these products or their containers must be familiar with the appropriate safety and handling precautions. Such information may be found in the Safety Data Sheets (SDS) for these products or you may contact Chemtrade at 416-496-5856. In the event of an emergency with these products, call the 24-hour Emergency Number: USA and Canada (CHEMTREC) 800-424-9300. For additional information contact:

Syracuse Technical Center
315-478-2323 or 800-255-7589

Water Treatment Chemicals
Customer Service 844-204-9675

Revision Date: April 24, 2022
Liquid Alum
Safety Data Sheet
Safety Data Sheet #: CHE-5001S
Revision Date: October 3, 2023

1. Identification

Product identifier
Product Identity
Other means of identification
Product Form
Relevant identified uses of the substance or mixture and uses advised against

Liquid Alum
Aluminum Sulfate, liquid, Liquid Alum
Mixture
Alum is used as a coagulating agent in municipal and industrial water and wastewater treatment and as an additive in papermaking.

Restrictions on use:
For use in water treatment, refer to NSF dosage information.

Details of the supplier of the safety data sheet
Company Name
Chemtrade Logistics Inc. (Canada)
155 Gordon Baker Road Suite 300
Toronto, Ontario M2H 3N5
Chemtrade Logistics Inc. (US)
90 East Halsey Road, Suite 200
Parsippany, NJ 07054

Emergency
24 hour Emergency Telephone No.
Chemtrade Emergency Contact: (866) 416-4404 (Toronto)
CHEMTERC +1-800-424-9300
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTERC – Day or Night
For SDS Info: (416) 496-5856
www.chemtradelogistics.com

2. Hazard(s) Identification

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

Classification of the substance or mixture
Metal corrosion; H290
Skin corrosion/irritation category 1C; H314
Serious eye damage / eye irritation, category 2; H319
Aquatic toxicity (acute), category 3; H402

May be corrosive to metals.
Causes severe skin burns and eye damage.
Causes serious eye irritation.
Harmful to aquatic life.
Liquid Alum

Safety Data Sheet

Label elements

Danger

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H319 Causes serious eye irritation.
H402 Harmful to aquatic life.

[Prevention]:
P234 Keep only in original container.
P260 Do not breathe dust, fume, mist, vapours or spray.
P264 Wash thoroughly after handling.
P273 Avoid release to the environment.
P280 All Wear protective gloves, protective clothing, eye protection, face protection.

[Response]:
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER, doctor or physician.
P337+313 If eye irritation persists: Get medical advice or attention.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

[Storage]:
P405 Store locked up.
P406 Store in a corrosive resistant, container with a resistant inner liner.

[Disposal]:
P501 Dispose of contents or container in accordance with local and national regulations.

2.3. Other hazards
Liquid Alum Safety Data Sheet

This product contains no PBT/vPvB chemicals.
This product contains no endocrine disrupting chemicals.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the Hazardous Products Regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>30 - 55</td>
<td>Not classified</td>
<td>No additional notes</td>
</tr>
<tr>
<td>Aluminum sulfate</td>
<td>45 - 70</td>
<td>Serious eye damage / eye irritation, category 1:H318 Metal corrosion;H290 Aquatic toxicity (acute), category 3:H402</td>
<td>No additional notes</td>
</tr>
</tbody>
</table>

Note: Aluminum sulfate is as Al2(SO4)3•14H2O (Dry Aluminum Sulfate).

The actual concentration or concentration range is withheld as a trade secret.

*PBT/vPvB - PBT substance or vPvB substance.
The full texts of the phrases are shown in Section 16.

The specific chemical identity and/or exact percentage of composition are withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

Section 4. First aid measures

Description of first aid measures

General
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation
Remove to fresh air, keep patient warm and at rest. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes
Irrigate copiously with clean water for at least 30 minutes, holding the eyelids apart and seek medical attention. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Drench affected area with water for at least 30 minutes. Obtain medical attention if irritation develops or persists.

Ingestion
If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview
Contact with skin causes severe skin burns. Causes serious eye damage.

Acute Health Effects: the substance causes serious eyes damage and severe burns.

EYE: Contact causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva with redness, pain, swelling, blurred vision, and severe burns (Immediate). No delayed effects from eye contact are expected. No chronic effects from eye contact are known.

SKIN: Causes severe irritation which will progress to chemical burns. Symptoms may include redness, pain, serious skin burns, and blisters. (Immediate). No
delayed effects from skin contact are expected. No chronic effects from skin
contact are known.
INHALATION: May be corrosive to the respiratory tract. Prolonged exposure may
cause irritation of the upper respiratory passages. (Immediate). May cause delayed
pulmonary edema. No chronic effects from inhalation are known.
INGESTION: May cause burns or irritation of the linings of the mouth, throat, and
gastrointestinal tract (Immediate). No delayed symptoms from ingestion are
expected. No chronic effects from ingestion are known.

Indication of Any Immediate Medical Attention and Special Treatment Needed: If
exposed or concerned, get medical advice and attention.
See section 2 for further details.

- Eyes
  Causes serious eye irritation.
- Skin
  Causes severe skin burns and eye damage.

Section 5. Fire-fighting measures

Extinguishing media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.
Unsuitable extinguishing media: Do not use water jet, or heavy water stream. Use of heavy stream of
water may spread fire.

Special hazards arising from the substance or mixture

Hazardous decomposition: Can liberate toxic and corrosive fumes of SO2 and SO3 under extreme
conditions when boiled to dryness or heated above 600 °C (1112 °F).
Keep only in original container.
Do not breathe dust, fume, mist, vapours or spray.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full-face piece
and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean
up immediately after fire. No smoking.

Fire Hazard: Product is not flammable but may burn at high temperatures.
Explosion Hazard: Product is not explosive. Contact with metallic substances may release flammable
hydrogen gas.

Firefighting Instructions: Do not enter fire area without proper protective equipment, including respiratory
protection. Use water spray or fog for cooling exposed containers. Remove containers from fire area if this
can be done without risk. Exercise caution when fighting any chemical fire.

Hazardous reactions will not occur under normal conditions.
Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

ERG Guide No. 154

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General Measures: Evacuate surrounding areas. Keep unnecessary and unprotected personnel from
entering. Do not touch or walk through spilled material. Avoid contact with eyes, skin and clothing. Provide
adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. See Section 8.

Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Promptly remove soiled clothing and wash thoroughly before reuse.

Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, and vapours. Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Wear protective gloves, eye protection, face protection (refer to section 8 for more details).

Environmental precautions

Prevent entry to sewers and public waters. Avoid release to environment. See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

Methods and material for containment and cleaning up

Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Ventilate area.

Contain, dilute cautiously with water, and neutralize with soda ash or lime.

Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area.

Contain, dilute cautiously with water, and neutralize with soda ash or lime.

Methods for Clean up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

---

Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Store locked up.

Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Promptly remove soiled clothing and wash thoroughly before reuse.

Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, and vapours.

Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Wear protective gloves, eye protection, face protection (refer to section 8 for more details).

See section 2 for further details. - [Prevention]:

Conditions for safe storage, including any incompatibilities

Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from extremely high or low temperatures and incompatible materials. Store in original container or corrosive resistant and/or lined container.

Comply with applicable regulations.

Incompatible materials: Non acid-proof metals (such as aluminum, copper and iron), bases, unalloyed steel, galvanized surfaces.

See section 2 for further details. - [Storage]:

Specific end use(s)
Liquid Alum

Safety Data Sheet

Alum is used as a coagulating agent in municipal and industrial water and wastewater treatment and as an additive in papermaking.

Restrictions on use:
For use in water treatment, refer to NSF dosage information.

Section 8. Exposure controls / personal protection

Control parameters

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<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
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</tr>
<tr>
<td></td>
<td></td>
<td>Yukon</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>

Exposure controls

Respiratory
Use NIOSH/MSHA approved respirator, following manufacturer's recommendations when concentrations exceed permissible exposure limits.

Eyes
Chemical safety goggles and face shield.

Skin
Chemical resistant clothing such as coveralls/apron and boots should be worn. Avoid skin contact. Wear protective gloves. Wear suitable protective clothing.

Materials for Protective Clothing:
Chemically resistant materials and fabrics.

Engineering Controls
Exposure Controls Appropriate Engineering Controls: Emergency eyewash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Other Work Practices
Put on appropriate personal protective equipment. Chemically compatible gloves, protective clothing, and chemical resistant safety goggles, face shield. Insufficient
ventilation: wear respiratory protection. Use good personal hygiene practices.
Wash hands and other exposed areas with mild soap and water before eating, 
drinking or smoking and when leaving work. Promptly remove soiled clothing and 
wash thoroughly before reuse.
Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, and 
vapours.
Do not get in eyes, on skin, or on clothing. Use appropriate personal protection 
equipment (PPE). Wear protective gloves, eye protection, face protection (refer to 
section 8 for more details).

See section 2 for further details.

### Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>9.1. Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
</tr>
<tr>
<td>Color</td>
</tr>
<tr>
<td>Odor</td>
</tr>
<tr>
<td>Freezing point</td>
</tr>
<tr>
<td>Initial boiling point</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
</tr>
<tr>
<td>Decomposition temperature</td>
</tr>
<tr>
<td>pH</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
</tr>
<tr>
<td>Solubility in Water</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Kow)</td>
</tr>
<tr>
<td>Vapour pressure (Pa)</td>
</tr>
<tr>
<td>Relative Density</td>
</tr>
<tr>
<td>Vapour Density</td>
</tr>
<tr>
<td>Evaporation rate (Ether = 1)</td>
</tr>
<tr>
<td>Specific Gravity</td>
</tr>
<tr>
<td>Other information</td>
</tr>
<tr>
<td>No other relevant information.</td>
</tr>
</tbody>
</table>
Liquid Alum

Safety Data Sheet

Section 10. Stability and reactivity

Reactivity
May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react
exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent
reaction.

Chemical stability
Stable under recommended handling and storage conditions (see section 7).

Possibility of hazardous reactions
Hazardous polymerization will not occur.

Conditions to avoid
Direct sunlight, extremely high or low temperatures, and incompatible materials.

Incompatible materials
Non acid-proof metals (such as aluminum, copper and iron), bases, unalloyed steel, galvanized surfaces.

Hazardous decomposition products
Can liberate toxic and corrosive fumes of SO2 and SO3 under extreme conditions when boiled to dryness or
heated above 600 °C (1112 °F).

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the
converted acute toxicity point estimate was used in the calculation of the product's
ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation vapour LC50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LC50, mg/L/4hr</th>
<th>Inhalation Gas LC50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum sulfate - [10043-01-3]</td>
<td>2,500.00, Rat -</td>
<td>No data available.</td>
<td>No data available.</td>
<td>No data available.</td>
<td>No data available.</td>
</tr>
<tr>
<td></td>
<td>Category: 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carcinogen Data

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0010043-01-3</td>
<td>Aluminum sulfate</td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>--- Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>--- Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>--- Not Applicable</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>1C Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>2 Causes serious eye irritation.</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>--- Not Applicable</td>
</tr>
</tbody>
</table>
Liquid Alum

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin sensitization</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Possible routes of entry:

**Symptoms and effects, both acute and delayed:**
Contact with skin causes severe skin burns. Causes serious eye damage.

**Acute Health Effects:** the substance causes serious eyes damage and severe burns.

- **EYE:** Contact causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva with redness, pain, swelling, blurred vision, and severe burns (Immediate). No delayed effects from eye contact are expected. No chronic effects from eye contact are known.
- **SKIN:** Causes severe irritation which will progress to chemical burns. Symptoms may include redness, pain, serious skin burns, and blisters. (Immediate). No delayed effects from skin contact are expected. No chronic effects from skin contact are known.
- **INHALATION:** May be corrosive to the respiratory tract. Prolonged exposure may cause irritation of the upper respiratory passages. (Immediate). May cause delayed pulmonary edema. No chronic effects from inhalation are known.
- **INGESTION:** May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract (Immediate). No delayed symptoms from ingestion are expected. No chronic effects from ingestion are known.

**Indication of Any Immediate Medical Attention and Special Treatment Needed:** If exposed or concerned, get medical advice and attention.

**Most likely route(s) of exposure** Skin, Eyes

- **Eyes**
  
  Causes serious eye irritation.

- **Skin**
  
  Causes severe skin burns and eye damage.

---

**Section 12. Ecological information**

**Toxicity**
Harmful to aquatic life.

**Aquatic Ecotoxicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum sulfate - {10043-01-3}</td>
<td>186.00, Dario rerio</td>
<td>38.20, Daphnia</td>
<td>0.45, Coreodaphnia dubia</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
There is no data available on the preparation itself.

**Bioaccumulative potential**
No available information

**Mobility in soil**
Liquid Alum

Safety Data Sheet

No available information

Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

Other adverse effects
No available information

Section 13. Disposal considerations

Waste treatment methods
Dispose of waste material in accordance with all local, regional, federal, provincial, state, territorial and international regulations.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Section 14. Transport information

Classification Method: Classified as per Part 2, Sections 2.1 - 2.8 of the Transportation of Dangerous Goods Regulations.

<table>
<thead>
<tr>
<th>DOT / TDG (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN3264</td>
<td>UN3264</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (contains aluminum sulfate), 8, III</td>
<td>UN3264 Corrosive liquid, acidic, inorganic, n.o.s., (contains aluminum sulfate)</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>IMDG: 8</td>
<td>Air Class: 8</td>
</tr>
<tr>
<td>Packing group</td>
<td>Sub Class: Not Applicable</td>
<td>Sub Class: Not Applicable</td>
</tr>
<tr>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Marine Pollutant: No;</td>
<td></td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>No available information</td>
<td></td>
</tr>
</tbody>
</table>

Section 15. Regulatory information

Regulatory Overview: The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Liquid Alum

Safety Data Sheet

NFPA Ranking
Health (blue) : 3
Fire (red) : 0
Reactivity (yellow) : 1
Special (white) : ACID

This product has been classified in accordance with the hazard criteria Hazardous Products Regulations (SOR/2015-17) and the SDS contains all of the information required by those regulations.

Toxic Substance Control Act (TSCA):
  Aluminum sulfate (Present)
  Water (Present)

EPCRA 311/312 Chemicals and RQs (lbs):
  Aluminum sulfate (5,000.00)

Canadian Domestic Substance List (DSL):
  Aluminum sulfate
  Water

Canadian Non-Domestic Substance List (NDSL):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):
  Aluminum sulfate

Pennsylvania RTK Substances (>1%):
  Aluminum sulfate

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:
This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Liquid Alum  Safety Data Sheet

<table>
<thead>
<tr>
<th>Aluminum sulfate (0010043-01-3)</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>No</th>
<th>No</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Chemical Name (CAS Number)</th>
<th>China IECSC</th>
<th>Japan ENCS</th>
<th>Japan ISHL</th>
<th>Japan PDSCL</th>
<th>Japan PRTR 1</th>
<th>Japan PRTR 2</th>
<th>Philippines PICCS</th>
<th>New Zealand NZIOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum sulfate (0010043-01-3)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Section 16. Other information

Revision Date 10/03/2023

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H290 May be corrosive to metals.
H318 Causes serious eye damage.
H402 Harmful to aquatic life.

Disclaimer: The information presented herein is supplied as a guide to those who handle or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

Revision Summary

<table>
<thead>
<tr>
<th>Section</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Updated skin corrosion category to H314 1C to match Transportation packing group III</td>
</tr>
</tbody>
</table>

Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA's "Right to Know" (29 CFR 1910.1200) and Canada's WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care®.
The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of Wednesday, January 31, 2024 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?
CompanyName=Chemtrade&TradeName=ALUM&PlantState=California+CA&PlantCountry=UNITED+STATES

---

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

---

Chemtrade Solutions LLC (formerly General Chemical LLC)
155 Gordon Baker Road
Suite 300
Toronto, ON M2H 3N5
Canada
866-887-8805
416-496-5856
Visit this company’s website
(http://www.chemtradelogistics.com)

Facility: Pittsburg, CA

Aluminum Chloride[AL]

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Chloride Solution</td>
<td>Coagulation &amp; Flocculation</td>
<td>200mg/L</td>
</tr>
</tbody>
</table>

[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] [CP]**

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alum</td>
<td>Coagulation &amp; Flocculation</td>
<td>400 mg/L</td>
</tr>
<tr>
<td>Aluminum Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>400 mg/L</td>
</tr>
<tr>
<td>Liquid Alum</td>
<td>Coagulation &amp; Flocculation</td>
<td>400mg/L</td>
</tr>
<tr>
<td>Liquid Alum Acidized 0.5-10.0%</td>
<td>Coagulation &amp; Flocculation</td>
<td>400 mg/L</td>
</tr>
</tbody>
</table>

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

[CP] The finished drinking water shall be monitored to ensure that levels of copper do not exceed 1.3 mg/L.

**Polyaluminum Chloride [AL]**

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyaluminum Chloride</td>
<td>Coagulation &amp; Flocculation</td>
<td>250 mg/L</td>
</tr>
</tbody>
</table>

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

The parties have signed this Contract, effective as of the day and year first stated above.

CONTRACTOR

Under penalty of perjury, I certify that the information provided here is correct.

Signature: Elizabeth Ryno
Title: Marketing Specialist

Additional Signature (if required): Christine LaSala
Title: Price/Bid Specialist

CITY OF SACRAMENTO

A Municipal Corporation

APPROVED AS TO FORM:

Signature: Michael Voss
Title: Senior Deputy City Attorney

Reviewed By:

Signature:
Title:

Approved By:

Signature:
Title:

Additional Signature (if required):
Title:
CITY OF SACRAMENTO

ADDITIONAL TERMS AND CONDITIONS

COOPERATIVE PURCHASE AGREEMENT

The City of Sacramento ("City") and Thatcher Company of California, Inc. ("Contractor"), hereby agree to these Additional Terms and Conditions ("Additional Terms"), effective July 1, 2024.

WHEREAS, Contractor is an authorized dealer for Thatcher Company of California, Inc., which entered into Contract No. PRC002840 for Liquid Chlorine with the Bay Area Chemical Consortium (BACC), dated July 1, 2024 ("Cooperative Contract"), in which Contractor agreed to sell Liquid Chlorine to governmental agencies that are members of BACC’s Cooperative Purchasing Program ("Participating Public Agencies"); and

WHEREAS, the City wishes to purchase Liquid Chlorine, pursuant to the terms of the Cooperative Contract and these Additional Terms.

NOW THEREFORE, Contractor and the City agree as follows:

1. The City agrees to purchase, pursuant to the terms of the Cooperative Contract, Liquid Chlorine as set forth in Quotation No. 10-2024.

2. The City shall have all the same rights and obligations as BACC under the Cooperative Contract. The terms of the Cooperative Contract shall apply to this purchase and shall control over any contrary terms included in the attached quotation.

3. Contractor agrees that the equipment shall be delivered to the City no later than SPECIFIED IN DELIVERY DETAILS FROM BID 10-2024.

4. Contractor warrants and represents that the person or persons executing this Agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this contract supplement and bind Contractor to the terms hereof.

5. Except as specifically modified herein, all terms and conditions of the Cooperative Contract shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by these Additional Terms.
## Bay Area Clean Water Agencies

**Bid Results for Project 10-2024 LIQUID CHLORINE**

**Bid Due on February 22, 2024 4:00 PM (PDT)**

### SINGLE BID AWARD

<table>
<thead>
<tr>
<th>Description</th>
<th>Marin Sonoma Napa</th>
<th>North Bay</th>
<th>Sacramento</th>
<th>Sacramento</th>
<th>South Bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit of Measure</td>
<td>ton</td>
<td>ton</td>
<td>ton</td>
<td>lb</td>
<td></td>
</tr>
<tr>
<td>JCI Jones Chemicals Inc.</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
<td></td>
</tr>
<tr>
<td>Olin Corporation</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
<td></td>
</tr>
<tr>
<td>Univar Solutions USA Inc.</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
<td>no bid</td>
<td></td>
</tr>
<tr>
<td>Thatcher Company of California, Inc.</td>
<td>2,849.0000</td>
<td>2,749.0000</td>
<td>2,749.0000</td>
<td>3.3900</td>
<td>3.9900</td>
</tr>
</tbody>
</table>

### Aggregate Cost Calculation:

- **Estimated annual quantity**: 198, 373, 593, 80,400, 15,300
- **Thatcher Company of California, Inc.**: $564,102.00, $1,025,377.00, $1,630,157.00, $272,556.00, $61,047.00

### Method of Award

Bids may be awarded to the lowest responsive and responsible bidder meeting the specifications for bulk loads for the chemical. The lowest responsive bidder will be determined by multiplying the estimated annual quantity for each participating BACC agency by the bid price for their region and adding up the aggregate cost to all of the participating agencies in the regions. The single bid that results in the lowest overall cost to the participating agencies as a group will be determined by BACC to be the low bid, assuming the bid is determined by BACC to be complete and in compliance with the bid requirements. BACC has the right to delete terms or options from the bid contract documents and reserves the right to reject any and all bids and to waive irregularities in said bids.

### Single Bid Award

<table>
<thead>
<tr>
<th>Aggregate Cost Calculation:</th>
<th>Marin Sonoma Napa</th>
<th>North Bay</th>
<th>Sacramento</th>
<th>Sacramento</th>
<th>South Bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual quantity</td>
<td>198</td>
<td>373</td>
<td>593</td>
<td>80,400</td>
<td>15,300</td>
</tr>
<tr>
<td>Thatcher Company of California, Inc.</td>
<td>$564,102.00</td>
<td>$1,025,377.00</td>
<td>$1,630,157.00</td>
<td>$272,556.00</td>
<td>$61,047.00</td>
</tr>
</tbody>
</table>
Bay Area Clean Water Agencies
Bid Results for Project 10-2024 LIQUID CHLORINE
Bid Due on February 22, 2024 4:00 PM (PT)
Addendum Issue: None
SINGLE BID AWARD

<table>
<thead>
<tr>
<th>Item #</th>
<th>BACC RECOMMENDATION</th>
<th>Lowest Responsive Responsible Bidder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>4</td>
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</tr>
<tr>
<td>5</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>n</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>ChemTrade (see below)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>n</td>
<td></td>
</tr>
</tbody>
</table>

Specific Deviations Noted

**NOT NOTED ON STANDARD AGREEMENT AS REQUIRED, BUT NOTED ON EXHIBIT “A” OF BID FORM: ADDITION TO TERMS AND CONDITIONS SECTION 4.1 INDEMNIFICATION (SEE SCREENSHOT BELOW)**

11. Chemical Manufacturer’s name and address (if different from Bidder):
   ChemTrade Electrochem, Inc.
   100 Amherst Avenue
   No. Vancouver, BC  V7H 1T9

16. **SPECIFIC DEVIATIONS:**
   This box must be checked if bidder has any proposed specific deviations. Per Section 2.12, proposed deviations from the specifications by the Bidder, the absence of a crossed out change in the specifications will hold the Bidder strictly accountable to the specifications as described in the bid document, including any addendum.

   Describe the specific deviations below. A copy of the proposed specifications must be attached to this Standard Agreement at the time of submission, with bidder’s name clearly shown on each document.

16. **ADDITION TO TERMS AND CONDITIONS, SECTION 4.1 INDEMNIFICATION:** In no event shall either party be liable to the other for incidental, consequential, indirect, special, exemplary, or punitive damages (including, but not limited to, loss of profits) arising out of any breach of this Agreement or any of the obligations under this Agreement.
Sealed bids must be submitted in a PDF format and bidders must enter bid prices into the electronic bid platform (Line Item page) https://bacwa.org/about-bacc/

No later than 4:00 PM. PT Thursday, February 22, 2024

I. All costs except California State sales tax for the purchase of LIQUID CHLORINE must be included in the amount shown entered into the electronic bid platform (Line Item page), including any and all mill assessments, fees, excise taxes, transportation charges, etc. Any exceptions to the bid must be noted under Specific Deviations on the Standard Agreement. Bidders shall submit bids per unit of measure as specified in the electronic bid platform (Line Item page).

II. Bidders must submit all of the following, attached to this Bid Form:
   a. All requirements listed in Section 2.21 Manufacturer’s Info.
   b. If applicable, the name, address, and contact information for the third party hauling company as well as an affidavit signed by the Bidder that the third party hauler can and will deliver the chemical to each and every participating BACC Agency.

III. Bidder Obligations
    By signing this Bid Form and entering into individual purchase orders, purchase agreements and/or contracts with BACC agencies, the bidder expressly agrees to be bound by all the provisions of the bid solicitation, including Sections I-IV.
I hereby agree to furnish LIQUID CHLORINE identified in the attached bid forms, as solicited by the Bay Area Chemical Consortium (BACC), to one or more of the participating BACC Agencies.

Company: Thatcher Company of California, Inc.
Address: P. O. Box 27407
City, State, ZIP: Salt Lake City, UT 84127-0407
Phone: (916) 389-2517
Email: wendy.richmond@tchem.com; jayson.stenquist@tchem.com
Authorized Representative: Michael T. Mitchell
Signature: 
Date: February 14, 2024

WE ACKNOWLEDGE RECEIVING ADDENDUM/ADDENDA NUMBER ______ THROUGH ______.

SPECIFIC DEVIATIONS:
☐ This box must be checked if bidder has any proposed specific deviations. Per Section 2.12 Proposed Deviations from the Specifications by the Bidder, the absence of a proposed changed in the specifications will hold the bidder strictly accountable to the specifications as described in the bid document, including any addendum.

Describe the specific deviations below. A copy of the proposed specifications must be attached to this Standard Agreement at the time of submission, with bidder’s name clearly shown on each document.


ADDITION TO TERMS AND CONDITIONS, SECTION 4, 4.1 INDEMNIFICATION: In no event shall either party be liable to the other for incidental, consequential, indirect, special, exemplary, or punitive damages (including, but not limited to, loss of profits) arising out of any breach of this Agreement or any of the obligations under this Agreement.
STANDARD AGREEMENT, PAGE 2 OF 2

BIDDER INFORMATION

1. Legal Name of Bidder:
   Thatcher Company of California, Inc.

2. Bidder’s Street Address:
   8625 Unsworth Avenue, Sacramento, CA 95828

3. Mailing Address:
   P. O. Box 27407, Salt Lake City, UT 84127-0407

4. Business Telephone: (916) 389-2517   Fax Number: (916) 389-2516

5. Type of Supplier:
   ☑ Corporation
   ☐ Sole Proprietor   ☐ Partnership   ☐ LLC
   If Corporation, indicate State where incorporated: California

6. Business License Number issued by the City where the Supplier’s principal place of business is located.
   Number: 1008886   Issuing City: Sacramento

7. Supplier Federal Tax Identification Number: 95-2944197

8. Emergency Contact:
   Name: Philip Belden
   Phone Number: (702) 219-2372

9. Order Contact:
   Name: Customer Service
   Address: 8625 Unsworth Avenue, Sacramento, CA 95828
   Phone Number: (916) 389-2517 Fax Number: (916) 389-2516
   Email: csca@tchem.com

10. References:

    | Company/Agency Name          | Contact Name   | Phone Number |
    |-------------------------------|---------------|--------------|
    | 1) Sacramento Reg. County San. Dist. | Chad Steinwood | (916) 875-1208 |
    | 2) Marin Municipal Water District | Kirk Niipee | (415) 945-1564 |
    | 3) Contra Costa Water District | Brian Jackson | (925) 688-8048 |

11. Chemical Manufacturer's name and address (if different from Bidder):
    Chemtrade Electrochem, Inc.
    100 Amherst Avenue
    No. Vancouver, BC V7H 1T9
Non-Collusion Affidavit
To Be Executed By Bidder and Submitted With Bid

Utah
State of California
County of Salt Lake

Michael T. Mitchell, being first duly sworn, deposes and says that he or she is the
(Bidder's Authorized Representative)

President of Thatcher Company of California, Inc. the party making the
(Title of Representative) (Legal Name of Bidder)

foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person,
partnership, company, association, organization, or corporation; that the bid is genuine and not collusive
or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a
false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any
bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has
not in any manner, directly or indirectly, sought by agreement, communication, or conference with
anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element
of the bid price, or of that of any other bid, or to secure any advantage against the public body awarding
the contract of anyone interested in the proposed contract; that all statements contained in the bid are
true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any
breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and
will not pay, any fee to any corporation, partnership, company association, organization, bid depository,
or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the state of California that the foregoing is true and
correct.

Signature of: President, Secretary, Michael T. Mitchell
Manager, Owner, or Representative

Subscribed and sworn to before me this, 14th day of February, 2024

Signature of Notary Public In and For
Wendy G. Richmond
The County of Salt Lake
State of Utah

All Signatures Must Be Witnessed By Notary
February 14, 2024

AFFIDAVIT OF COMPLIANCE

Liquid Chlorine

This affidavit certifies and warrants the liquid chlorine to be delivered to the Bay Area Chemical Consortium Agencies by Thatcher Company of California, Inc. fully complies with A.W.W.A. Specifications and ANSI/NSF Standard 60.

Michael T. Mitchell
President
General Manager: Phillip Belden
Phone Number: (702) 219-2372
E-mail Address: philip.belden@tchem.com

Vice President of Marketing and Customer Service: Jayson Stenquist
Phone Number: (801) 972-4587 ext. 1444 MT
E-mail Address: jason.stenquist@tchem.com
Send To: 07870
Mr. Matt Shewan
Chemtrade Electrochem Inc.
144 - 4th Avenue Southwest
Suite 2100
Calgary, Alberta T2P 3N4
Canada

Facility: 07871
Chemtrade Electrochem Inc.
100 Amherst Avenue
North Vancouver BC V7H 1S4
Canada

<table>
<thead>
<tr>
<th>Result</th>
<th>PASS</th>
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<tbody>
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<td>Tested To</td>
<td>NSF/ANSI 60</td>
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<td>Description</td>
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<td>Test Type</td>
<td>Annual Collection</td>
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<td>Job Number</td>
<td>A-00236286</td>
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<td>Project Number</td>
<td>W0376532</td>
</tr>
<tr>
<td>Project Manager</td>
<td>Eleftheria Biers</td>
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</tbody>
</table>

Report Date 01-DEC-2017

This report documents the testing of the referenced product to the requirements of NSF/ANSI Standard 60 (Drinking Water Treatment Chemicals - Health Effects). This standard establishes minimum requirements for chemicals, the chemical contaminants, and impurities that are added to drinking water from drinking water treatment chemicals. Contaminants produced as by-products through reaction of the treatment chemical with a constituent of the drinking water are not covered by this Standard. Reference the "About the Standard" section at the end of this report for additional information about NSF/ANSI Standard 60 and the products covered under this Standard.

Thank you for having your product tested by NSF International.

Please contact your Project Manager if you have any questions or concerns pertaining to this report.

Report Authorization

Amanda Phelka - Director, Toxicology Services

Date 01-DEC-2017
**General Information**

- Standard: NSF/ANSI 60
- Chemical Name: Chlorine
- DCC Number: DA00930
- Maximum Use Level: 30 mg/L
- Monitor Code: A
- Physical Description of Sample: Liquid
- Trade Designation/Model Number: Chlorine

**Sample Information**

- Sample Id: S-0001437503
- Description: Chlorine | Liquid
- Sampled Date: 16-Nov-2017
- Received Date: 16-Nov-2017

**Tox Normalization Information:**

- Calculated NF: 0.0075
- Preparation method used: E
- MUL: 30 mg/L
- Compound Reference Key: SPAC

**Lab Normalization Information:**

- Weight of chlorine: 4.1 g
- Weight of water: 1026.4 g

**Normalization Calculation:**

\[
\text{Normalized Result} = \frac{\text{Test Result (ug/L)} \times \text{NF}}{\text{MUL (mg/L)}}
\]

Where NF = \(\frac{\text{Weight of Water Collected (g)}}{\text{Weight of Chlorine Collected (g)}} \times \frac{1\ L}{10^g} \times \frac{1g}{10^mg}\)

- \(MUL = \text{Maximum Use Level}\)
- Unit conversion: 10 g water = 1 L water, 10 mg = 1 g
- An additional factor may be used to adjust the analytical result to field use conditions to account for product carryover, flushing, or other assumptions stipulated with the use of the product. If an additional factor is used, it is included in the information above.

<table>
<thead>
<tr>
<th>Testing Chemistry Parameter</th>
<th>Units</th>
<th>Sample</th>
<th>Control</th>
<th>Result</th>
<th>Norm. Result</th>
<th>Acceptance Criteria</th>
<th>Evaluation Status</th>
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<td>ND(5)</td>
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<td>ug/L</td>
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<td>ND(5)</td>
<td>ND(0.04)</td>
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<td>ND(5)</td>
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<td>ND(0.075)</td>
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<tr>
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<td>ND(5)</td>
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<td>ND(0.04)</td>
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<td>ND(5)</td>
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<td>ND(10)</td>
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<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td>0.3</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Bromobenzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td></td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>2-Chlorotoluene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td></td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>4-Chlorotoluene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td></td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td></td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>tert-Butylbenzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td>10</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td></td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Testing Parameter</td>
<td>Units</td>
<td>Sample</td>
<td>Control</td>
<td>Result</td>
<td>Norm. Result</td>
<td>Acceptance Criteria(1)</td>
<td>Evaluation Status</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-------</td>
<td>--------</td>
<td>---------</td>
<td>--------</td>
<td>-------------</td>
<td>------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>sec-Butylbenzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p-Isopropyltoluene (Cymene)</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,3-Trimethylbenzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n-Butylbenzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td>0.3</td>
<td>Pass</td>
</tr>
<tr>
<td>1,2,4-Trichlorobenzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td>7</td>
<td>Pass</td>
</tr>
<tr>
<td>Hexachlorobutadiene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td>0.4</td>
<td>Pass</td>
</tr>
<tr>
<td>1,2,3-Trichlorobenzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naphthalene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td>10</td>
<td>Pass</td>
</tr>
<tr>
<td>Benzene</td>
<td>ug/L</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(5)</td>
<td>ND(0.04)</td>
<td>0.5</td>
<td>Pass</td>
</tr>
<tr>
<td>Total Trihalomethanes</td>
<td>ug/L</td>
<td>ND(0.5)</td>
<td>ND(0.5)</td>
<td>ND(0.5)</td>
<td>ND(0.004)</td>
<td>8</td>
<td>Pass</td>
</tr>
<tr>
<td>Total Xylenes</td>
<td>ug/L</td>
<td>ND(0.5)</td>
<td>ND(0.5)</td>
<td>ND(0.5)</td>
<td>ND(0.004)</td>
<td>1000</td>
<td>Pass</td>
</tr>
</tbody>
</table>

1 - If the acceptance criteria is blank and the evaluation status is "Fail", then the criteria used will be noted on the letter accompanying these results.

[Xylenes] - Acceptance based on Total Xylenes

[TTHM] - Acceptance based on Total Trihalomethanes
Common Terms and Acronyms Used:

- **Sample**............ Test result on the submitted product sample after prepared or exposed in accordance with the standard.
- **Control**............ Test result on a laboratory blank sample analyzed in parallel with the sample.
- **Result**............. Sample test result minus the Control test result.
- **Normalized Result** Result normalized in accordance with the test standard to reflect potential at-the-tap concentrations.
- **ND()**.............. Result is below the detection level of the analytical procedure as identified in the parenthesis.
- **DCC Number**........ NSF document control code of the registered formulation of the product tested
- **ug/L**................ Microgram per liter = 0.001 milligram per liter (mg/L)
- **SPAC**................ Acceptance criteria of the standard (Single Product Allowable Concentration)

References to Testing Procedures:

<table>
<thead>
<tr>
<th>NSF Reference</th>
<th>Parameter / Test Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4662</td>
<td>Volatile Organic Compounds (Ref: EPA 524.2)</td>
</tr>
</tbody>
</table>

Test descriptions preceded by an asterisk *** indicate that testing has been performed per NSF International requirements but is not within its scope of accreditation.

Testing Laboratories:

All work performed at: [NSF AA]

- **Id**
- **Address**
  - NSF International
  - 789 N. Dixboro Road
  - Ann Arbor MI 48105

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About the Standard:

NSF/ANSI Standard 60: Drinking Water Treatment Chemicals - Health Effects

NSF/ANSI 60 establishes minimum health effects requirements for the chemicals, the chemical contaminants, and the impurities that are directly added to drinking water from drinking water treatment chemicals. It does not establish performance or taste and odor requirements. The standard contains requirements for chemicals that are directly added to water and are intended to be present in the finished water as well as other chemicals products that are added to water but are not intended to be present in the finished water. Chemicals covered by this Standard include, but are not limited to, coagulation and flocculation chemicals, softening, precipitation, sequestering, pH adjustment, and corrosion/scale control chemicals, disinfection and oxidation chemicals, miscellaneous treatment chemicals, and miscellaneous water supply chemicals.

The testing performed to this standard is done to estimate the level of contaminants or impurities added to drinking water when the chemical is used at the "Maximum Use Level" under attestation. Prior to testing, information is obtained on the formulation and sources of supply used to manufacture the chemical. This information is then reviewed along with the minimum requirements of the standard to establish the potential contaminants of concern. A representative sample of chemical is obtained for testing. The chemical sample is prepared for analysis through specific methods established in the standard based on the type of chemical and then is analyzed for potential contaminants determined during the formulation review. The laboratory results are normalized to represent potential at-the-tap values and then compared to the "single product allowable concentration" (SPAC) established by the standard. The product is found in compliance with the standard if the normalized value is less than or equal to the allowable concentration.
Certificate Of Analysis

Material: Liquid Chlorine

The material furnished under this Certificate of Analysis conforms to the specification below as determined by historical data. The most recent complete liquid chlorine railcar analysis result is also provided as per the customer's request.

Batch: 0000384392 / Quantity: 81.646 Tonne

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Test Result</th>
<th>Specification Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine (Cl2)</td>
<td>%</td>
<td>99.5900</td>
<td>99.5000</td>
<td></td>
</tr>
<tr>
<td>Moisture</td>
<td>PPM</td>
<td>22.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chloroform (CHCl3)</td>
<td>PPM</td>
<td>&lt; 0.5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon Tetrachloride (CCl4)</td>
<td>PPM</td>
<td>&lt; 0.5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Volatile Residue</td>
<td>PPM</td>
<td>&lt; 10.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bromine (Br)</td>
<td>PPM</td>
<td>&lt; 2.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen Trichloride (NC13)</td>
<td>PPM</td>
<td>0.8800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSF Certified</td>
<td>-</td>
<td></td>
<td>NSF® - 60 (MUL 30 MG/L)</td>
<td></td>
</tr>
</tbody>
</table>

ppm is equivalent to mg/Kg
% is equivalent to % by Volume unless otherwise noted

Q Analysis Based on Shipment/Batch Sample
A Calculated Value
I Most Recent Analysis Prior to Shipment
Values with "−" indicate less than method detection limit.

Approved By: Bert Weger, Senior Process Engineer
# LIQUID CHLORINE

## General Sales Specification

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Units</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>Volume %</td>
<td>99.5 Min.</td>
</tr>
<tr>
<td>Moisture</td>
<td>ppm</td>
<td>50 Max.</td>
</tr>
<tr>
<td>Non-Volatile Residue</td>
<td>ppm</td>
<td>50 Max.</td>
</tr>
<tr>
<td>Carbon Tetrachloride</td>
<td>ppm</td>
<td>15 Max.</td>
</tr>
<tr>
<td>Chloroform</td>
<td>ppm</td>
<td>50 Max.</td>
</tr>
<tr>
<td>Bromine</td>
<td>ppm</td>
<td>25 Max.</td>
</tr>
<tr>
<td>Nitrogen Trichloride</td>
<td>ppm</td>
<td>5 Max.</td>
</tr>
</tbody>
</table>

**NOTES:**
- Meets the properties in AWWA Standard B301-10
- Meets the properties in the latest edition of the Food Chemicals Codex (FCC) Cl₂ Monograph.
- Certified by NSF International to NSF/ANSI Standard 60 Drinking Water Treatment Chemicals for use at a maximum level of 30 mg/L.

**IMPORTANT:**

The information presented herein, while not guaranteed, was prepared by technical personnel and is true and accurate to the best of our knowledge. No warranty or guarantee, expressed or implied, is made regarding performance, stability or otherwise. This information is not intended to be all-inclusive as the manner and conditions of use, handling, storage and other factors may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended as, and nothing shall be construed as, a recommendation to infringe any existing patents or to violate any Federal, State, Provincial and local laws.

Date Approved: October 2017  
Revision Number: 2017-001

Chemtrade Electrochem Inc.  
Customer Service Group  
155 Gordon Baker Road  
Toronto, Ontario  
M2H 3N5  
Phone: 1-866-640-1593/1-866-330-3772  
Fax: (514) 640-4858  

File ID: LPSC/PSCR/Chlorine-10002017  

Certified to NSF/ANSI Standard 60  
Responsible Care®  
Our commitment to sustainability.
The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of Tuesday, February 20, 2024 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?CompanyName=Chemtrade+Electrochem&ChemicalName=Chlorine&PlantCountry=CANADA&

---

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

---

Chemtrade Electrochem Inc.
155 Gordon Baker Road
Suite 300
Toronto, ON M2H 3N5
Canada
1-866-887-8805
416-496-5856
Visit this company's website (http://www.chemtradelogistics.com)

**Facility**: No. Vancouver, British Columbia, Canada

<table>
<thead>
<tr>
<th>Chlorine[CL]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
</tr>
<tr>
<td>Chlorine</td>
</tr>
</tbody>
</table>

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

---

Number of matching Manufacturers is 1
Number of matching Products is 1
Processing time was 0 seconds
SAFETY DATA SHEET

Chlorine

Section 1. Identification

GHS product identifier : Chlorine
Chemical name : Chlorine
Code : 0007
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Pulp bleaching, water treatment, manufacture of plastics, organic and inorganic chlorides, refrigerants and pharmaceuticals.

Supplier's details : Chemtrade Electrochem Inc.
100 Amherst Ave
North Vancouver, British Columbia V7H 1S4, CA
Emergency #: (604)-929-3441
Toll free: 1-800-699-6924

Chemtrade Logistics Inc.
Suite 300, 155 Gordon Baker Road
Toronto, Ontario
M2H 3N5, CA
Phone: (416)-496-5856

Emergency telephone number (with hours of operation) : CANUTEC: +1-613-996-6666 or *666 (cellular)
2-C-0808
CHEMTREC, U.S.: 1-800-424-9300
CCN 15610
International: +1-703-527-3887

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : OXIDIZING GASES - Category 1
GASES UNDER PRESSURE - Compressed gas
ACUTE TOXICITY (inhalation) - Category 3
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
AQUATIC HAZARD (ACUTE) - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements
Hazard pictograms :

Signal word : Danger
Section 2. Hazards identification

**Hazard statements**
- H270 - May cause or intensify fire; oxidizer.
- H280 - Contains gas under pressure; may explode if heated.
- H331 - Toxic if inhaled.
- H319 - Causes serious eye irritation.
- H315 - Causes skin irritation.
- H335 - May cause respiratory irritation.
- H410 - Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention**
- P280 - Wear protective gloves. Wear eye or face protection.
- P284 - Wear respiratory protection.
- P220 - Keep away from clothing, incompatible materials and combustible materials.
- P244 - Keep reduction valves free from grease and oil.
- P271 - Use only outdoors or in a well-ventilated area.
- P273 - Avoid release to the environment.
- P260 - Do not breathe vapor.
- P264 - Wash hands thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.

**Response**
- P391 - Collect spillage.
- P370 + P376 - In case of fire: Stop leak if safe to do so.
- P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.
- P302 + P352 + P362-2 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse.
- P332 + P313 - If skin irritation occurs: Get medical attention.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 - If eye irritation persists: Get medical attention.
- P301 + P330 - if swallowed rinse mouth
- P331 - Do not induce vomiting. Seek medical advice.

**Storage**
- P405 - Store locked up.
- P410 - Protect from sunlight.
- P403 - Store in a well-ventilated place.

**Disposal**
- P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification/HHNOC/PHNOC**
- None known.

Section 3. Composition/information on ingredients

**Substance/mixture**
- Substance

**Chemical name**
- Chlorine

**Other means of identification**
- Not available.

**CAS number/other identifiers**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>&gt;99</td>
<td>7782-50-5</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.
Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Immediately flush eyes with plenty of lukewarm water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 30 minutes. Get medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: Flush contaminated skin with plenty of lukewarm water. Continue to rinse for at least 30 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Causes serious eye irritation.

Inhalation: Fatal if inhaled. May cause respiratory irritation. May cause lung edema. Symptoms can be delayed. Immediately dangerous to life or health: 10ppm.

Skin contact: Causes skin irritation.

Ingestion: Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

Inhalation: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing
- unconsciousness
- shortness of breath
- headache
- nausea or vomiting
- may cause lung damage
- Fatal if inhaled.
Section 4. First aid measures

Skin contact: Adverse symptoms may include the following:
- irritation
- redness

Ingestion: Not the normal route of exposure, causes digestive tract burns.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician:
- Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of shortness of breath, give oxygen.
- Keep victim warm. Keep victim under observation. Symptoms may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: Direct water spray. Reacts with water. No water should be sprayed onto a leaking cylinder as spraying of water onto it promotes corrosion at the point of leakage as well as increasing the evaporation rate of chlorine.

Specific hazards arising from the chemical: Oxidizing material. This material increases the risk of fire and may aid combustion. Contact with combustible material may cause fire. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Contact with reactive metals e.g. aluminum, zinc and tin may result in the generation of flammable hydrogen. Water used for fire extinguishing, which has been in contact with the product, maybe corrosive. Water spray on active leak may promote accelerated corrosion of container and accelerate leakage. Risk of fire and explosion when in contact with combustible substances, ammonia and finely divided metals.

Hazardous thermal decomposition products: Decomposition products may include the following materials:
- halogenated compounds

Special protective actions for fire-fighters: Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Evacuate area. In case of fire or explosion do not breathe fumes. Cylinders can burst violently when heated, due to excess pressure build up.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to: boots, gloves, hard hat, splash-proof goggles, full face shield and impervious clothing (i.e. chemically impermeable suit).
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. Ventilate enclosed areas to prevent formation of toxic, flammable or oxygen deficient atmospheres. Many gases are heavier than air and will spread along ground and collect in low or confined areas (basements, sewers, tanks).

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". For response to chlorine gas it is recommended to use as a minimum level "B" protection that is compatible to chlorine. For liquid spills it is recommended to utilize as a minimum enhanced level "B" (Enhanced Level "B" is the addition of a splash hood)/Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Responders can reference Chlorine Institute pamphlet #65 on PPE.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. Neutralize spilled material and collect spillage.

Methods and materials for containment and cleaning up

Spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling.

Protective measures: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from clothing, incompatible materials and combustible materials. Keep reduction valves free from grease and oil. Empty containers retain product residue and can be hazardous. Do not reuse container. Use only chlorine-compatible lubricants. Use in a sealed system and/or a well-ventilated area. Observe good hygiene practices.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.
Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities**: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Separate from reducing agents and combustible materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Contents under pressure. Store at temperatures not exceeding 51°C/123.8°F.

Section 8. Exposure controls/personal protection

**Control parameters**

United States

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>ACGIH TLV (United States, 3/2016). TWA: 0.5 ppm 8 hours. TWA: 1.5 mg/m³ 8 hours. STEL: 1 ppm 15 minutes. STEL: 2.9 mg/m³ 15 minutes. NIOSH REL (United States, 10/2013). CEIL: 0.5 ppm 15 minutes. CEIL: 1.45 mg/m³ 15 minutes. OSHA PEL (United States, 6/2016). CEIL: 1 ppm. CEIL: 3 mg/m³.</td>
</tr>
</tbody>
</table>

Canada

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>CA Alberta Provincial (Canada, 4/2009). 15 min OEL: 2.9 mg/m³ 15 minutes. 8 hrs OEL: 1.5 mg/m³ 8 hours. 8 hrs OEL: 0.5 ppm 8 hours. 15 min OEL: 1 ppm 15 minutes. CA British Columbia Provincial (Canada, 5/2015). TWA: 0.5 ppm 8 hours. STEL: 1 ppm 15 minutes. CA Ontario Provincial (Canada, 7/2015). TWA: 0.5 ppm 8 hours. STEL: 1 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWA: 0.5 ppm 8 hours. TWA: 1.5 mg/m³ 8 hours. STEV: 1 ppm 15 minutes. STEV: 2.9 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1 ppm 15 minutes. TWA: 0.5 ppm 8 hours.</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Eyewash facilities and emergency shower must be available when handling this product.

**Environmental exposure controls**: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

**Individual protection measures**
Section 8. Exposure controls/personal protection

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Chemical goggles/face shield recommended.

Skin protection
Hand protection: 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.

Body protection: 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. Wear appropriate chemical resistant clothing.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Wear appropriate thermal protective clothing when necessary.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance
Physical state: Liquid. [Compressed gas.]
Color: Amber liquid or greenish-yellow gas.
Odor: Pungent.
Odor threshold: <1 ppm
pH: Reacts with water to product acidic solutions.
Melting point: -101°C (-149.8°F)
Boiling point: -34°C(-29.2°F)
Flash point: Not applicable.
Evaporation rate: Not available.
Flammability (solid, gas): Not applicable.
Lower and upper explosive (flammable) limits: Not applicable.
Vapor pressure: 638.4 kPa (4788.4 mm Hg) [room temperature]
Vapor density: 2.5 [Air = 1]
Relative density: 2.5
Solubility: Not available.
Solubility in water: 7.41 g/l
Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water : Not available.
Auto-ignition temperature : Not applicable.
Decomposition temperature : Not available.
Viscosity : Dynamic (room temperature): 0.01 mPa·s (0.01 cP)

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients. Contact with combustible material may cause fire.

Chemical stability : This product is stable under normal conditions.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Keep away from heat, sparks and open flame. Heat may cause the cylinders to explode.

Incompatible materials : Reacts violently with many organic compounds, ammonia, hydrogen and finely divided metals causing fire and explosion hazard. Attacks many metals in presence of water. Attacks plastic, rubber and coatings. Chlorine is corrosive to most metals in the presence of moisture (>150 ppm water) or at high temperature. Combines with water to produce hydrochloric and hypochlorous acid. Chlorine reacts with carbon monoxide to produce toxic phosgene, and sulphur dioxide to produce sulphonyl chloride.

Hazardous decomposition products : Hydrogen Chloride, Hydrochloric Acids, Hypochlorous Acid.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>293 ppm</td>
<td>1 hours</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

There is no data available.

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>EPA</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>A4</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.
Section 11. Toxicological information

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure

- Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

- Eye contact: Causes serious eye irritation.
- Inhalation: Fatal if inhaled. May cause respiratory irritation. May cause lung edema. Symptoms can be delayed. Immediately dangerous to life or health: 10ppm.
- Skin contact: Causes skin irritation.
- Ingestion: Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact: Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- Inhalation: Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
  - unconsciousness
  - shortness of breath
  - headache
  - nausea or vomiting
  - may cause lung damage
  - Fatal if inhaled.
  - Irritation threshold: approximately 0.5 ppm
  - Immediately dangerous to life or health: 10 ppm
- Skin contact: Adverse symptoms may include the following:
  - irritation
  - redness
- Ingestion: Not the normal route of exposure, causes digestive tract burns.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects: Coughing, shortness of breath, headache, nausea or vomiting.
- Potential delayed effects: Symptoms of Pulmonary edema may be delayed.

Long term exposure

- Potential immediate effects: Shortness of breath, coughing
Section 11. Toxicological information

Potential delayed effects: May cause damage to organs (lungs) through prolonged or repeated exposure. Repeated exposures at low levels may cause pulmonary impairment. May also increase the likelihood of respiratory disorders.

Potential chronic health effects
- General: No known significant effects or critical hazards.
- Carcinogenicity: No known significant effects or critical hazards.
- Mutagenicity: No known significant effects or critical hazards.
- Teratogenicity: No known significant effects or critical hazards.
- Developmental effects: No known significant effects or critical hazards.
- Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates
There is no data available.

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>Acute EC50 5.1 ppm Marine water</td>
<td>Algae - Macrocystis pyriforma - Young</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 930000 μg/L Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 2.03 μg/L Fresh water</td>
<td>Crustaceans - Asellus aquaticus</td>
<td>2 days</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 30 μg/L Fresh water</td>
<td>Daphnia - Daphnia pulex</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 14 μg/L Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
There is no data available.

Bioaccumulative potential
There is no data available.

Mobility in soil
Soil/water partition coefficient (K<sub>oc</sub>): Not applicable.

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Follow label warnings even after cylinder is emptied.
## Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1017</td>
<td>UN1017</td>
<td>UN1017</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>CHLORINE. Marine pollutant (Chlorine) RQ</td>
<td>CHLORINE. Marine pollutant (Chlorine)</td>
<td>CHLORINE. Marine pollutant (Chlorine)</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>2.3 (5.1, 8)</td>
<td>2.3 (5.1, 8)</td>
<td>2.3 (5.1, 8)</td>
</tr>
<tr>
<td><img src="image" alt="Hazard Class 2" /></td>
<td><img src="image" alt="Hazard Class 2" /></td>
<td><img src="image" alt="Hazard Class 2" /></td>
<td><img src="image" alt="Hazard Class 2" /></td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Yes.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>Additional information</td>
<td>Toxic - Inhalation hazard Zone B. This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.</td>
<td>Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2), 2.23-2.25 (Class 5), 2.40-2.42 (Class 8), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail.</td>
<td>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. The environmentally hazardous substance mark may appear if required by other transportation regulations.</td>
</tr>
<tr>
<td>Reportable quantity</td>
<td>10 lbs / 4.54 kg [0.47974 gal / 1.816 L]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited quantity</td>
<td>Yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packaging instruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger aircraft</td>
<td>Quantity limitation: Forbidden.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo aircraft</td>
<td>Quantity limitation: Forbidden.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special provisions</td>
<td>102</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2, B9, B14, T50, TP19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 14. Transport information

Special precautions for user: **Transport within user’s premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

**U.S. Federal regulations**: United States inventory (TSCA 8b): This material is listed or exempted.
- Clean Water Act (CWA) 311: Chlorine
- Clean Air Act (CAA) 112 regulated toxic substances: Chlorine

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)**: Listed

**Clean Air Act Section 602 Class I Substances**: Not listed

**Clean Air Act Section 602 Class II Substances**: Not listed

**DEA List I Chemicals (Precursor Chemicals)**: Not listed

**DEA List II Chemicals (Essential Chemicals)**: Not listed

**SARA 302/304**

**Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>EHS</th>
<th>SARA 302 TPQ (lbs)</th>
<th>SARA 302 TPQ (gallons)</th>
<th>SARA 304 RQ (lbs)</th>
<th>SARA 304 RQ (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>Yes</td>
<td>100</td>
<td>-</td>
<td>10</td>
<td>-</td>
</tr>
</tbody>
</table>

**SARA 304 RQ**: 10 lbs / 4.5 kg [0.48 gal / 1.8 L]

**SARA 311/312**

**Classification**: Sudden release of pressure
- Immediate (acute) health hazard

**Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**SARA 313**

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements Chlorine</td>
<td>7782-50-5</td>
</tr>
<tr>
<td>Supplier notification Chlorine</td>
<td>7782-50-5</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.
Section 15. Regulatory information

State regulations

Massachusetts: This material is listed.
New York: This material is listed.
New Jersey: This material is listed.
Pennsylvania: This material is listed.

California Prop. 65
No products were found.

This product has been certified to NSF/ANSI 60 (certificate number 07871-01) for a Maximum Use Level (MUL) of 30 mg/L.

Canada

Canadian lists

Canadian NPRI: This material is listed.
CEPA Toxic substances: This material is not listed.
Canada inventory: This material is listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health: 4  Flammability: 0  Physical hazards: 1

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health: 4  Flammability: 0  Instability: 1  Special: OX

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>OXIDIZING GASES - Category 1</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>GASES UNDER PRESSURE - Compressed gas</td>
<td>According to package</td>
</tr>
<tr>
<td>ACUTE TOXICITY (inhalation) - Category 3</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>SKIN IRRITATION - Category 2</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>EYE IRRITATION - Category 2A</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>AQUATIC HAZARD (ACUTE) - Category 1</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>AQUATIC HAZARD (LONG-TERM) - Category 1</td>
<td>Expert judgment</td>
</tr>
</tbody>
</table>

History
Section 16. Other information

Date of issue mm/dd/yyyy : 03/30/2017
Date of previous issue : 09/01/2015
Version : 2
Prepared by :

Notice to reader
To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.
THATCHER COMPANY OF CALIFORNIA, INC.
8625 Unsworth Avenue, Sacramento, CA  95828

Mailing Addresses

Address Then E-Mail Contracts & Agreements To:

Craig N. Thatcher, Chief Executive Officer
Michael T. Mitchell, President
Thatcher Company of California, Inc.
P. O. Box 27407
Salt Lake City, UT 84127-0407
craig.thatcher@tchem.com; mike.mitchell@tchem.com
Copy To: wendy.richmond@tchem.com

Address Requests for Bids & Quotations to Craig N. Thatcher, Chief Executive Officer, Then E-mail To:

Thatcher Company of California, Inc.
Attn: Craig N. Thatcher, Chief Executive Officer
P. O. Box 27407
Salt Lake City, UT 84127-0407
wendy.richmond@tchem.com

Mail Payment: Thatcher Company of California, Inc.
LB 1106
P. O. Box 35146
Seattle, WA  98124-5146

Order Placement: Customer Service  (916) 389-2517  csca@tchem.com

24/7 Customer & Transportation Service:  (800) 375-7758

E-mail Requests For Certificate of Insurance: wendy.richmond@tchem.com

Bid Tabulation: wendy.richmond@tchem.com; jayson.stenquist@tchem.com
March 18, 2024

Thatcher Company of California, Inc.
Attn: Michael T. Mitchell
PO Box 27407
Salt Lake City, UT 84127

RE: Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 10-2024 for Supply and Delivery of LIQUID CHLORINE.

Dear Mr. Mitchell,

We are pleased to advise you that the bid submitted by Thatcher Company of California, Inc. for Bid No. 10-2024 was determined to be the lowest responsive bid for the supply and delivery of LIQUID CHLORINE during the period July 1, 2024 through June 30, 2025.

The participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Thatcher Company of California, Inc. for their respective facilities.

Bay Area Chemical Consortium sincerely appreciates your efforts and participation in the competitive bid process.

If you have any questions, please free to contact me at jdyment@bacwa.org

Sincerely,

Jennifer Dyment
Assistant Executive Director
BACWA.org
as Coordinating Agency for the Bay Area Chemical Consortium
SIGNATURES

The parties have signed this Contract, effective as of the day and year first stated above.

CONTRACTOR
Under penalty of perjury, I certify that the information provided here is correct.

Signature: Craig N Thatcher
Title: CEO

Additional Signature (if required): Mike Mitchell
Title: President

CITY OF SACRAMENTO
A Municipal Corporation

APPROVED AS TO FORM:

Signature: Michael Voss
Title: Senior Deputy City Attorney

Reviewed By:

Signature:
Title:

Approved By:

Signature:
Title:

Additional Signature (if required):
Title:
CITY OF SACRAMENTO
ADDITIONAL TERMS AND CONDITIONS
COOPERATIVE PURCHASE AGREEMENT

The City of Sacramento ("City") and Pencco, Inc. ("Contractor"), hereby agree to these Additional Terms and Conditions ("Additional Terms"), effective July 1, 2024.

WHEREAS, Contractor is an authorized dealer for Pencco, Inc., which entered into Contract No. PRC002841 for Hydrofluosilicic Acid with the Bay Area Chemical Consortium (BACC), dated July 1, 2024 ("Cooperative Contract"), in which Contractor agreed to sell Hydrofluosilicic Acid to governmental agencies that are members of BACC’s Cooperative Purchasing Program ("Participating Public Agencies"); and

WHEREAS, the City wishes to purchase Hydrofluosilicic Acid, pursuant to the terms of the Cooperative Contract and these Additional Terms.

NOW THEREFORE, Contractor and the City agree as follows:

1. The City agrees to purchase, pursuant to the terms of the Cooperative Contract, Hydrofluosilicic Acid as set forth in Quotation No. 08-2024.

2. The City shall have all the same rights and obligations as BACC under the Cooperative Contract. The terms of the Cooperative Contract shall apply to this purchase and shall control over any contrary terms included in the attached quotation.

3. Contractor agrees that the equipment shall be delivered to the City no later than SPECIFIED IN DELIVERY DETAILS FROM BID 08-2024.

4. Contractor warrants and represents that the person or persons executing this Agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this contract supplement and bind Contractor to the terms hereof.

5. Except as specifically modified herein, all terms and conditions of the Cooperative Contract shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by these Additional Terms.
**Single Bid Award**

<table>
<thead>
<tr>
<th>Section</th>
<th>Hydrofluoric Acid 23-24%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit of Measure</strong></td>
<td>gal</td>
</tr>
<tr>
<td><strong>Univar Solutions USA LLC.</strong></td>
<td>no bid</td>
</tr>
<tr>
<td><strong>Thatcher Company of California, Inc.</strong></td>
<td>3.3900</td>
</tr>
</tbody>
</table>

For Section 2.16 Method of Award

Bids may be awarded by the participating BACC agencies to the lowest, responsive, and responsible bidder meeting the specifications for bulk loads for the chemical. The lowest responsive bidder will be determined by multiplying the estimated annual quantity for each participating BACC agency by the bid price for their region, and adding up the aggregate cost to all of the participating agencies in the region. The single bid that results in the lowest overall cost to the participating agencies as a group will be determined by BACC to be the low bid, assuming the bid is determined by BACC to be complete and in compliance with the bid requirements. BACC has the right to delete terms or options from the bid contract documents and reserves the right to reject any and all bids and to waive irregularities of said bids.

<table>
<thead>
<tr>
<th><strong>Aggregate Cost Calculation</strong></th>
<th>East Bay</th>
<th>Marin</th>
<th>Sonoma</th>
<th>Napa</th>
<th>North Bay</th>
<th>Sacramento</th>
<th>Tri Valley</th>
<th>Overall Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thatcher Company of California, Inc.</strong></td>
<td>$101,700.00</td>
<td>$86,240.00</td>
<td>$326,991.00</td>
<td>$469,650.00</td>
<td>$29,300.00</td>
<td>$1,013,881.00</td>
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</tr>
<tr>
<td><strong>Pencco, Inc</strong></td>
<td>$99,000.00</td>
<td>$89,040.00</td>
<td>$288,131.20</td>
<td>$455,700.00</td>
<td>$30,400.00</td>
<td>$962,271.20</td>
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</table>

* Overall lowest

**Single Bid Award**

<table>
<thead>
<tr>
<th><strong>Estimated Annual Quantity</strong></th>
<th>East Bay</th>
<th>Marin</th>
<th>Sonoma</th>
<th>Napa</th>
<th>North Bay</th>
<th>Sacramento</th>
<th>Tri Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000</td>
<td>20,000</td>
<td>24,780</td>
<td>155,000</td>
<td>2,000</td>
<td>6,000</td>
<td>10,000</td>
<td></td>
</tr>
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</table>
Bay Area Clean Water Agencies
Bid Results for 08-2024 HYDROFLUSILICIC ACID
Bid Due on February 22, 2024 4 pm
Addendum Issued: NONE
SINGLE BID AWARD

<table>
<thead>
<tr>
<th>Item</th>
<th>BACC RECOMMENDATION</th>
<th>Thatcher</th>
<th>Pencco</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Received by bid deadline above</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>2</td>
<td>Bids submitted on forms provided</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>3</td>
<td>Must include a base unit price for each geographic area</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>4</td>
<td>Additional charges for “short load” deliveries shown as a standard deviation on bid form</td>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>5</td>
<td>References: minimum of 3</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>6</td>
<td>Product Specification Deviations - if any, proposed specification must be attached</td>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>7</td>
<td>Fully Executed Standard Agreement</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>8</td>
<td>Fully Executed Non-Collusion Affidavit</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>9</td>
<td>For potable application only: Affidavit of Compliance to AWWA and/or NSF standard or Statement by chemical manufacturer, signed on letterhead attesting to the affidavit’s validity or current printout from NSF.org</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>10</td>
<td>Representative lab analysis of the chemical prepared by reputable outside laboratory or ISO Certified</td>
<td>Yes -March 2021</td>
<td>Yes - from January 2023</td>
</tr>
<tr>
<td>11</td>
<td>Name/Address of chemical manufacturer</td>
<td>See below</td>
<td>See below</td>
</tr>
<tr>
<td>12</td>
<td>Product Bulletin and Typical Properties</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>13</td>
<td>Safety Data Sheet (SDS)</td>
<td>y</td>
<td>n/a</td>
</tr>
<tr>
<td>14</td>
<td>Addendum/Addenda Acknowledgement</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>15</td>
<td>Third Party Hauler? If applicable, name, address, Affidavit signed by Bidder</td>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>16</td>
<td>Specific Deviations Noted</td>
<td>NOT NOTED ON STANDARD AGREEMENT AS REQUIRED, BUT NOTED ON EXHIBIT “A” OF BID FORM: ADDITION TO TERMS AND CONDITIONS SECTION 4.1 INDEMNIFICATION (SEE SCREENSHOT BELOW)</td>
<td>n</td>
</tr>
</tbody>
</table>

SPECIFIC DEVIATIONS:
- This box must be checked if bidder has any proposed specific deviations. For Section 4.12 Proposed Deviation from the Specifications by the Bidder, the absence of a proposed change in the Bid Form is not sufficient to be acceptable. A completed form of the change must be attached to the Bid Form and be executed by the Bidder to be accepted.

ADDITION TO TERMS AND CONDITIONS, SECTION 4.1 INDEMNIFICATION: In no event shall either party be liable to the other for incidental, consequential, indirect, special, exemplary, or punitive damages (including, but not limited to, loss of profits) arising out of any breach of this Agreement or any of the obligations under this Agreement.

11. Chemical Manufacturer’s name and address (if different from Bidder):
   - Enviro Chemical Manufacturing Address:
     - J. R. Simplot
     - 515 State Highway 430
     - Rock Springs, WY 82901
Sealed bids must be submitted in a PDF format and bidders must enter bid prices into the electronic bid platform (Line Item page) https://bacwa.org/about-bacc/

NO later than 4:00 PM. PT Thursday, February 22, 2024

Legal Name of Bidder:
Pencco, Inc.

Business Address
PO Box 600 San Felipe, Tx 77473

Telephone Number: 979.885.0005
Facsimile Number: 979.605.0200
Email Address: sarah@pencco.com

Authorized Representative (Please Print):
Sarah Duffy

Signature: ____________________________
Date: 2/20/24

I. All costs except California State sales tax for the purchase of HYDROFLUOSILICIC ACID (FLUORIDE) must be included in the amount shown entered into the electronic bid platform (Line Item page), including any and all mill assessments, fees, excise taxes, transportation charges, etc. Any exceptions to the bid must be noted under Specific Deviations on the Standard Agreement. Bidders shall submit bids per unit of measure as specified in the electronic bid platform (Line Item page).

II. Bidders must submit all of the following, attached to this Bid Form:
   a. All requirements listed in Section 2.21 Manufacturer’s Info.
   b. If applicable, the name, address, and contact information for the third party hauling company as well as an affidavit signed by the Bidder that the third party hauler can and will deliver the chemical to each and every participating BACC agency.

III. Bidder Obligations
By signing this Bid Form and entering into individual purchase orders, purchase agreements and contracts with BACC agencies, the bidder expressly agrees to be bound by all the provisions of the bid solicitation, including Sections I-IV.
I hereby agree to furnish HYDROFLUOSILICIC ACID (FLUORIDE) identified in the attached bid forms, as solicited by the Bay Area Chemical Consortium (BACC), to one or more of the participating BACC Agencies.

Company: Pencco, Inc.
Address: PO Box 600
City, State, ZIP: San Felipe Tx 77473
Phone: 979.885.0005
Email: sarah@pencco.com
Authorized Representative: Sarah Duffy
Signature: [Signature]
Date: 2/20/24

WE ACKNOWLEDGE RECEIVING ADDENDUM/ADDITIONAL NUMBER ___ THROUGH _____.

SPECIFIC DEVIATIONS:
☐ This box must be checked if bidder has any proposed specific deviations. Per Section 2.12 Proposed Deviations from the Specifications by the Bidder, the absence of a proposed changed in the specifications will hold the bidder strictly accountable to the specifications as described in the bid document, including any addendum.

Describe the specific deviations below. A copy of the proposed specifications must be attached to this Standard Agreement at the time of submission, with bidder’s name clearly shown on each document.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
STANDARD AGREEMENT, PAGE 2 OF 2

BIDDER INFORMATION

1. Legal Name of Bidder: Penco, Inc.

2. Bidder’s Street Address: 831 Bartlett Rd, Sealy, Tx 77474

3. Mailing Address: PO Box 600 San Felipe, Tx 77473

4. Business Telephone: 979.885.0005 Fax Number: 979.885.3208

5. Type of Supplier:
   □ Sole Proprietor  □ Partnership  □ Corporation  □ LLC
   If Corporation, indicate State where incorporated: Texas

6. Business License Number issued by the City where the Supplier’s principal place of business is located.
   Number:  
   Issuing City:

7. Supplier Federal Tax Identification Number: 74-2333384

8. Emergency Contact: Name: Penco, Inc.
   Phone Number: 979.885.0005

9. Order Contact: Name: Emilio Mariscal
   Address: 4921 Gifford Avenue, Vernon, CA 90058
   Phone Number: 323.210.4473 Fax Number: 979.885.3208
   Email: orderswest@penco.com

10. References:

<table>
<thead>
<tr>
<th>Company/Agency Name</th>
<th>Contact Name</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) City of Benecia, CA</td>
<td>Debbie Gee</td>
<td>707.746.4295</td>
</tr>
<tr>
<td>2) City of Vallejo, CA</td>
<td>Bernie Ortega</td>
<td>707.315.5874</td>
</tr>
<tr>
<td>3) Santa Clara Valley Water Dist.</td>
<td>Kelly Grabeel</td>
<td>408.630.2397</td>
</tr>
</tbody>
</table>

11. Chemical Manufacturer’s name and address (if different from Bidder):
   Any NSF Certified US Manufacturer
   NC / ID
   
   1692799v1

33
Non-Collusion Affidavit
To Be Executed By Bidder and Submitted With Bid

State of California
County of Austin

Sarah Duffy, being first duly sworn, deposes and says that he or she is the
(Bidder’s Authorized Representative)

Bid Sec. of Penco, Inc. the party making the

>Title of Representative) (Legal Name of Bidder)

foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bid, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the state of California that the foregoing is true and correct.

Signature of: President, Secretary,
Manager, Owner, or Representative

Subscribed and sworn to before me this, 20 day of February, 2024

Signature of Notary Public In and For

The County of Austin
State of Texas

All Signatures Must Be Witnessed By Notary
BOARD OF DIRECTORS MEETING

Prior Notice was waived and a meeting of the Directors was held on August 15, 2014. The following resolution was adopted in respects to the official signing of bids on behalf of Penco, Inc.

BE IT RESOLVED by the Board of Directors of Penco, Inc. in a meeting duly assembled that Monica Avila, former Bid Secretary of the Corporation, no longer has authority to negotiate for and sign any bid proposals and/or contracts on behalf of the Corporation.

BE IT FURTHER RESOLVED that Sarah Duffy, Bid Secretary, of the Corporation has authority to negotiate for and sign any bid proposals and/or contracts which the Corporation might enter into for the furnishing of services for the Corporation under such terms, conditions, and stipulations, and for such consideration as she may deem to be in the best interest of the Corporation.

No further business was necessary and the meeting was concluded.

Ron L. Horne, President
AFFIDAVIT OF COMPLIANCE

This is to certify that the Hydrofluorosilicic Acid supplied by our company meets AWWA Standard B703-19 or the latest revision and is certified to NSF/ANSI Standard NSF-60.

Signature

R. L. Horne, President

Name and Title of Official

4/25/2023

Date
The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of Tuesday, February 20, 2024 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?CompanyName=penco&

---

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

---

PENCCO, Inc.
831 Bartlett Road
Sealy, TX 77474
United States
800-864-1742
979-885-0005
Visit this company's website (http://www.penco.com)

**Facility**: Distribution Center - Birmingham, AL

**Ferric Sulfate**

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>60% Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
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<tr>
<td>Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Ferric Sulfate Solution</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Poly Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
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**Facility**: Distribution Center - Stockton, CA

**Ferric Chloride**
<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferric Chloride</td>
<td>Coagulation &amp; Flocculation</td>
<td>600mg/L</td>
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**Hydrofluosilicic Acid**

<table>
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<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<td>5mg/L</td>
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<td>Fluosilicic Acid</td>
<td>Fluoridation</td>
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<td>HFS</td>
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<td>HFSA</td>
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<tr>
<td>Hydrofluosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
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**Facility**: Vernon, CA

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<th>Max Use</th>
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</thead>
<tbody>
<tr>
<td>Ferric Chloride</td>
<td>Coagulation &amp; Flocculation</td>
<td>600mg/L</td>
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**Ferrous Chloride**

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrous Chloride</td>
<td>Coagulation &amp; Flocculation</td>
<td>500mg/L</td>
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**Facility**: Distribution Center - Willow Springs, IL

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<th>Product Function</th>
<th>Max Use</th>
</tr>
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<tbody>
<tr>
<td>Fluorosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
</tr>
<tr>
<td>Fluosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
</tr>
<tr>
<td>Hydrofluosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
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**Facility**: Distribution Center - Whippany, NJ

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Hydrofluosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
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**Facility** : Distribution Center - Morganton, NC

<table>
<thead>
<tr>
<th>Fluorosilicic Acid</th>
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<td>Fluorosilicic Acid</td>
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<td>5mg/L</td>
</tr>
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<td>Fluosilic Acid</td>
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<td>HFS</td>
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<td>HFSA</td>
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<td>Hydrofluorosilicic Acid</td>
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<tr>
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**Facility** : Middlesex, NC

<table>
<thead>
<tr>
<th>Ammonium Sulfate</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
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<td>Trade Designation</td>
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<td></td>
</tr>
<tr>
<td>Ammonium Sulfate</td>
<td>Chloramination</td>
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<tr>
<td>LAS</td>
<td>Chloramination</td>
<td>60mg/L</td>
</tr>
<tr>
<td>Liquid Ammonium Sulfate</td>
<td>Chloramination</td>
<td>60mg/L</td>
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</table>

<table>
<thead>
<tr>
<th>Ferric Sulfate</th>
<th>Product Function</th>
<th>Max Use</th>
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</thead>
<tbody>
<tr>
<td>Trade Designation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
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<td>Coagulation &amp; Flocculation</td>
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<td>Coagulation &amp; Flocculation</td>
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<td>650mg/L</td>
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<thead>
<tr>
<th>Hydrofluosilicic Acid</th>
<th>Product Function</th>
<th>Max Use</th>
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<tr>
<td>Hydrofluorosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
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**Facility** : Distribution Center - Bardwell, TX

<table>
<thead>
<tr>
<th>Ferric Chloride</th>
<th>Product Function</th>
<th>Max Use</th>
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<td>Trade Designation</td>
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<td></td>
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<tr>
<td>Ferric Chloride</td>
<td>Coagulation &amp; Flocculation</td>
<td>600mg/L</td>
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<tr>
<td>Pencco 3012</td>
<td>Coagulation &amp; Flocculation</td>
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Ferric Sulfate
<table>
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<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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</thead>
<tbody>
<tr>
<td>Ferric Sulfate Solution</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
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<tr>
<td>Ferrous Chloride</td>
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<tr>
<td>Trade Designation</td>
<td>Product Function</td>
<td>Max Use</td>
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<tr>
<td>Penco 0210</td>
<td>Corrosion Control</td>
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<td>Coagulation &amp; Flocculation</td>
<td></td>
</tr>
<tr>
<td>Hydrofluosilicic Acid</td>
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<td></td>
</tr>
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<td>Product Function</td>
<td>Max Use</td>
</tr>
<tr>
<td>Hydrofluorosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
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</tbody>
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**Facility:** Ennis, TX

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferric Chloride</td>
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<td>Max Use</td>
</tr>
<tr>
<td>Ferric Chloride</td>
<td>Coagulation &amp; Flocculation</td>
<td>600mg/L</td>
</tr>
<tr>
<td>Penco 3012</td>
<td>Coagulation &amp; Flocculation</td>
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<td>Ferric Sulfate</td>
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<tr>
<td>50% Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>60% Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Ferric Sulfate Solution</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Poly Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Ferrous Chloride</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade Designation</td>
<td>Product Function</td>
<td>Max Use</td>
</tr>
<tr>
<td>Ferrous Chloride</td>
<td>Corrosion Control</td>
<td>500mg/L</td>
</tr>
<tr>
<td></td>
<td>Coagulation &amp; Flocculation</td>
<td></td>
</tr>
<tr>
<td>Penco 0210</td>
<td>Corrosion Control</td>
<td>500mg/L</td>
</tr>
<tr>
<td></td>
<td>Coagulation &amp; Flocculation</td>
<td></td>
</tr>
<tr>
<td>Ferrous Sulfate[1]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade Designation</td>
<td>Product Function</td>
<td>Max Use</td>
</tr>
<tr>
<td>Ferrous Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>150mg/L</td>
</tr>
<tr>
<td>GreenIron</td>
<td>Coagulation &amp; Flocculation</td>
<td>150mg/L</td>
</tr>
<tr>
<td>SafeIron</td>
<td>Coagulation &amp; Flocculation</td>
<td>150mg/L</td>
</tr>
</tbody>
</table>
Only products bearing the NSF Mark on the product, product packaging, and/or documentation shipped with the product are Certified.

### Hydrofluosilicic Acid

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrofluosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
</tr>
</tbody>
</table>

**Facility:** Sealy, TX

### Ferric Sulfate

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>60% Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Ferric Sulfate Solution</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Penn 3202</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
<tr>
<td>Poly Ferric Sulfate</td>
<td>Coagulation &amp; Flocculation</td>
<td>650mg/L</td>
</tr>
</tbody>
</table>

### Hydrofluosilicic Acid

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluorosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
</tr>
<tr>
<td>Fluosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
</tr>
<tr>
<td>Hydrofluosilicic Acid</td>
<td>Fluoridation</td>
<td>5mg/L</td>
</tr>
</tbody>
</table>

Number of matching Manufacturers is 1
Number of matching Products is 61
Processing time was 0 seconds
Safety Data Sheet (SDS)
Hydrofluorosilicic Acid

SECTION 1 – Chemical Identification and Supplier’s Information

Product Identification: Hydrofluorosilicic Acid
Chemical Formula: $\text{H}_2\text{SiF}_6$
Chemical Family: N/A
CAS #: 16961-83-4
Use: Industrial Use

Supplier’s Name & Address:
Pencco, Inc.
P.O. Box 600
San Felipe, TX 77473

Emergency Phone:
Pencco (979) 885-0005
CHEMTREC (800) 424-9300 – 24 hours a day

SECTION 2 – Hazards Identification

Classification of the Substance/Mixture

- Corrosive to Metals Category 1
- Acute Toxicity (Oral) Category 4
- Acute Toxicity (Dermal) Category 3
- Skin Corrosion/Irritation Category 1B
- Eye Damage/Irritation Category 1
- Acute Toxicity (Inhalation) Category 4

Signal Word: Danger

Pictograms:
Hazard Statements:
May be corrosive to metals (H290)
Harmful if swallowed (H302)
Toxic in contact with skin (H311)
Causes severe skin burns and eye damage (H314)
Harmful if inhaled (H332)

Precautionary Statements - Prevention:
Keep only in original container. (P234)
Do not breathe fumes, gases, mists, vapors, or sprays. (P260)
Wash face, hands, and any exposed skin thoroughly after handling. (P264)
Do not eat, drink, or smoke when using this product. (P270)
Use only outdoors or in a well-ventilated area. (P271)
Wear protective gloves, clothing, and eye/face protection. (P280)

Precautionary Statements – Response:
If swallowed: Rinse mouth. DO NOT induce vomiting. (P301+P330+P331)
Call a poison center or doctor if you feel unwell. (P312)
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
(P303+P361+P353)
Call a poison center or doctor if you feel unwell. (P312)
Wash contaminated clothing before reuse. (P363)
If inhaled: Remove person to fresh air and keep comfortable for breathing. (P304+P340)
Immediately call a poison center or doctor. (P310)
Specific treatment can be found in Section 4 – First Aid Measures of SDS. (P321)
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do –
continue rinsing. (P305+P351+P338)
Absorb spillage to prevent material damage. (P390)

Precautionary Statements – Storage:
Store locked up. (P405)
Store in corrosive resistant container with a resistant inner liner. (P406).

Precautionary Statements – Disposal:
Dispose of contents and container in accordance with local, regional, national, and international regulations.
(P501).

SECTION 3 – Composition/Information on Ingredients

Chemical Identity: Hydrofluorosilicic Acid
Common Name and synonyms: HFSA, Fluorosilicic acid, Hexafluorosilicic acid, hydrosilicofluoric acid

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Weight Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrofluorosilicic Acid</td>
<td>16961-83-4</td>
<td>25%</td>
</tr>
<tr>
<td>Water/Inactive Ingredients</td>
<td>7732-18-5</td>
<td>75%</td>
</tr>
</tbody>
</table>
SECTION 4 – First Aid Measures

Description of First Aid Measures

**Eye Contact:** Immediately flush eyes for 15 minutes with large amounts of water while holding eyelids apart. Washing within one minute is essential to achieve maximum effectiveness. Obtain medical attention IMMEDIATELY after flushing.

**Skin Contact:** Flush skin with water for at least 15 minutes. Remove contaminated clothing; wash before reuse. If irritation is still present, seek medical attention IMMEDIATELY.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention IMMEDIATELY.

**Ingestion:** DO NOT INDUCE VOMITING. Give 1 or 2 glasses of water or milk. Never give anything by mouth to an unconscious individual. Obtain medical attention IMMEDIATELY.

**Most important symptoms and effects, both acute and delayed**

Harmful if swallowed, toxic in contact with skin. Causes severe skin burns and eye damage.

SECTION 5 – Fire Fighting Measures

**Flash Point:** Not applicable.

**Upper/Lower Explosion Limits in Air:** Not applicable.

**Auto Ignition Temperature:** Not applicable.

**Suitable Extinguishing Media:** Will not burn; use materials appropriate for surrounding fire. Do not get water inside containers. Do not apply water stream directly at source of leak. Do not use a heavy water stream. A direct water stream will cause violent splattering and generation of heat.

**Unsuitable Extinguishing Media:** Water jets are not recommended in fires involving chemicals.

**Special hazards arising from the substance or mixture:** Hydrogen fluoride silicon oxides Not combustible. Ambient fire may liberate hazardous vapours.

**Fire and Explosion Hazards:** Not flammable. Under conditions of fire this material may produce: silicon oxides; hydrogen fluoride; tetrafluorosilane. Decomposes above 108 °C (227 °F)

**Protective Equipment and Precautions for Firefighters:** Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face-piece operated in a positive pressure mode. Move exposed containers from fire area if it can be done without risk. Use water to keep fire-exposed containers and tanks cool. Do not allow run-off from fire fighting to enter drains or water courses.

**Hazardous Product of Decomposition or Combustion:** Unknown.
SECTION 6 – Accidental Release Measures

**Personal Precautions:** Review safety precautions before proceeding with cleanup. Use appropriate personal protection equipment. Do not touch spilled material. Soak spills up with acid compatible absorbent material because neutralizing can lead to an exothermic reaction that will generate vapors. Restrict access to area until completion of clean up.

**Caution:** Ventilation should be provided in enclosed areas. Dike area around spill to prevent spreading, and use absorbent material to pick up spill.

**Environmental Precautions:** Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.

**Methods and Materials for Containment and Cleaning Up:** Notify the appropriate environmental authorities. Note that spills may need to be reported to the National Response Center ((800) 424-8802)

SECTION 7 – Handling and Storage

**Precautions for Safe Handling**

**Handling:** Avoid all eyes and skin contact and avoid creating or breathing vapor and mist. Vapor and mist can be created by exceeding boiling point (277°F). Wear recommended personal protective equipment. Ensure there is adequate ventilation, such as outdoors. Keep away from heat and open flame. Employ good maintenance practices to prevent leaks. Use good process control measures to prevent releases. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product.

**Storage:** Reacts with many metals to produce flammable and explosive hydrogen gas. Keep away from strong acids and bases, chlorites, organic peroxides, combustible materials, and metals. Store in dry, cool area. Store in a well-ventilated place away from heat and sources of ignition. Large tanks should be bermed and electrically grounded. Avoid using glass, metal, or stoneware containers. Empty containers may contain hazardous residues. Protect label and keep it visible. Do not transfer to metal containers.

SECTION 8 – Exposure Controls and Personal Protection

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrofluorosilicic Acid</td>
<td>ACGIH TLV (United States, 3/2020): TWA: 2.5 mg/m³, (as F) 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL 1989 (United States, 3/1989): TWA: 2.5 mg/m³, (as F) 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 5/2018): TWA: 2.5 mg/m³, (as F) 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL Z2 (United States, 2/2013): TWA: 2.5 mg/m³ 8 hours. Form: Dust</td>
</tr>
</tbody>
</table>
Engineering controls
Ventilation Requirements: Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems. **Other:** An emergency shower and eyewash station should be available, tested, and be in close proximity to the product being handled in accordance with provincial regulations.

Personal Protective Equipment (PPE)
Respiratory Protection: Use a NIOSH-approved cartridge respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits. Use respirator approved for acid fumes and mist.

Eye Protection: Use chemical safety goggles and face shield. Do not wear contact lenses.

Skin Protection: Where there is possibility of skin contact, use the following as appropriate, to avoid skin contact: gloves impervious to material, apron, boots, hood, pants, and jacket. Maintain a safety shower with quick opening valves. Water should be supplied through insulated and heat-traced lines to prevent freeze-ups in cold weather.

### SECTION 9 – Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Water white to straw yellow liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Slightly acrid</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>1.5 - 2.0</td>
</tr>
<tr>
<td>Melting Point</td>
<td>-18° C to -20 °C (-1 - 4 °F)</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>136°C to 163°C (277°C to 326°F)</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not Flammable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>UEL</td>
<td>N/A</td>
</tr>
<tr>
<td>LEL</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>24 mm Hg at 25°C</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.2 at 24°C</td>
</tr>
<tr>
<td>Solubility</td>
<td>Completely soluble</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>N/A</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>144 g/mol</td>
</tr>
</tbody>
</table>

### SECTION 10 – Stability and Reactivity

**Reactivity:** Reacts with metals to form flammable hydrogen gas. May be corrosive to metals

**Stability:** Stable at normal conditions.

**Hazardous Polymerization:** Will not occur.
Hazardous Decomposition Products: Thermal decomposition yields hydrogen silica tetrafluoride and hydrogen fluoride gas.

Incompatibility: Metals, glass, stoneware, alkali, strong concentrated acids.

SECTION 11 – Toxicological Information

Acute Toxicity
LD50 oral rat = 125 mg/kg.

Harmful if swallowed.

Toxic in contact with skin.

Causes severe skin burns and eye damage.

Chronic Effects: Prolonged absorption of fluorides may result in fluorosis. Symptoms include changes in bone density, ossification of ligaments and mottling of the dental enamel.

Carcinogenicity: None of the components of this material are listed as a carcinogen by IARC, NTP, OSHA, or ACGIH.

Reproductive Effects: No reproductive effects are known.

Target Organs: No data available.

SECTION 12 – Ecological Information

Ecotoxicological Information: Acute toxicity to aquatic invertebrates: LD50 = 140 mg/kg.
Persistence and Degradability: No data available.
Bioaccumulative potential: No data available.
Mobility in soil: No data available
Endocrine disrupting properties: No data available

SECTION 13 – Disposal Considerations

Product Waste: Dispose of waste contents and/or container in accordance with applicable local, regional, national, and/or international regulations.

Packaging Waste: Dispose of waste content and/or container in accordance with applicable local, regional, national, and/or international regulations.
SECTION 14 – Transportation Information

DOT Shipping Name: Fluorosilicic acid
Hazard Class: 8 – Corrosive Material
UN Number: UN 1778
Packing Group: II

SECTION 15 – Regulatory Information


CERCLA: Hazardous Substance

SARA Regulations: 313 and 40 CFR 372: No

SARA Hazard Categories, SARA Sections 311/312 (40 CFR 370.21):
Acute: Yes; Chronic: Yes; Fire: No; Reactive: No; Sudden Release: No

Clean Water Act: Designated as a hazardous substance under Section 311(b)(2)(A) of the Federal Water Pollution Control Act; Ingredients are regulated by the Clean Water Act Amendments of 1977 and 1978. This chemical is subject to regulations regarding its discharge.

TSCA Inventory Status: All components of this product are listed as “Active” on the Toxic Substances Control Act (TSCA) Inventory.

California Proposition 65: No

Right-To-Know Lists: Massachusetts, New Jersey. This substance does not contain nor is manufactured with ozone-depleting substances.

Canadian Regulations: CPR: Very toxic, Class D; Corrosive, Class E; DSL: Listed

SECTION 16 – Other Information

Prepared by: Pencco Inc.
Issue date: May 19, 2022
Revision Date: February 8, 2024

IMPORTANT! Read this SDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure.
Penco provides the information contained in each SDS, technical data sheet ("TDS"), product information brochure and/or information contained herein (including data and statements) in good faith and makes no representations as to its comprehensiveness or accuracy as of the date of publication. The SDSs, TDSs, and product information brochures are referred to collectively as the "Data Sheets". It is the responsibility of the user to obtain and use the most recent version of the Data Sheets. Each Data Sheet relates only to the specific product designated therein and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use of the product and information are beyond the control of Penco, Penco expressly disclaims any and all liability as to any consequential damages or results obtained or arising from any use of the products or the information contained in the Data Sheets. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE AS CONCERNS THE DATA SHEETS OR THE RELATED PRODUCTS.

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END of SDS
### Technical Data

**Product Name:** Hydrofluorosilicic Acid  
**Alternate Names:** Fluorosilicic Acid, HFSA  
**25% H₂SiF₆**  
**Industrial Grade**

<table>
<thead>
<tr>
<th>Chemical Analysis</th>
<th>Typical</th>
<th>Guarantee</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₂SiF₆</td>
<td>23.0-26.0 %</td>
<td>23.0</td>
</tr>
<tr>
<td>H₂SiF₆, as F</td>
<td>18.2-20.6 %</td>
<td></td>
</tr>
<tr>
<td>Heavy Metals</td>
<td>&lt; 0.02 %</td>
<td></td>
</tr>
<tr>
<td>Phosphates, as P₂O₅</td>
<td>0.2 %</td>
<td></td>
</tr>
<tr>
<td>Lead, as Pb</td>
<td>1.0 ppm</td>
<td></td>
</tr>
<tr>
<td>Iron, as Fe₂O₃</td>
<td>70 ppm</td>
<td></td>
</tr>
<tr>
<td>Iodide, as I</td>
<td>16 ppm</td>
<td></td>
</tr>
<tr>
<td>Arsenic, as As</td>
<td>6.0 ppm</td>
<td></td>
</tr>
</tbody>
</table>

This product is NSF Certified to ANSI Standard 60.

Maximum dosage for potable water treatment is 5 mg/L.

### Physical Data

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Water white to straw yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight, g/mol</td>
<td>144.09</td>
</tr>
<tr>
<td>Weight, lbs/gal</td>
<td>10.3</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.23</td>
</tr>
</tbody>
</table>
# Certificate of Analysis

**CLIENT:** Pennco  
**CLIENT PROJECT:** HFS 2023 Lab  
**LABORATORY NO.:** 99088  
**SAMPLE:** HFS-FT1-027S-2023-01E-17-10-30  
**REQUESTED BY:** Ms. Sarah Duffy  
**PURCHASE ORDER NO.:** 90309  
**REPORT DATE:** January 25, 2023

<table>
<thead>
<tr>
<th>Test</th>
<th>Result, mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Aluminum</td>
<td>2.8</td>
</tr>
<tr>
<td>Arsenic</td>
<td>2.4</td>
</tr>
<tr>
<td>Boron</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Barium</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Beryllium</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Calcium</td>
<td>1.8</td>
</tr>
<tr>
<td>Cadmium</td>
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<tr>
<td>Cobalt</td>
<td>&lt;1.0</td>
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<tr>
<td>Chromium</td>
<td>&lt;1.0</td>
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<td>Copper</td>
<td>&lt;1.0</td>
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<tr>
<td>Iron</td>
<td>3.3</td>
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<tr>
<td>Mercury</td>
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<tr>
<td>Potassium</td>
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</tr>
<tr>
<td>Lithium</td>
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<tr>
<td>Magnesium</td>
<td>4.6</td>
</tr>
<tr>
<td>Manganese</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Sodium</td>
<td>2.0</td>
</tr>
<tr>
<td>Nickel</td>
<td>&lt;1.0</td>
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<tr>
<td>Lead</td>
<td>&lt;1.0</td>
</tr>
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<td>Antimony</td>
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<tr>
<td>Selenium</td>
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</tr>
<tr>
<td>Tin</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Strontium</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Titanium</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Thallium</td>
<td>&lt;1.0</td>
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<td>Vanadium</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Zinc</td>
<td>&lt;1.0</td>
</tr>
</tbody>
</table>
## Certificate of Analysis

**SINCE 1985**  
Quality Controlled Through Analysis

---

**CLIENT:** Pancco  
**REQUESTED BY:** Ms. Sarah Duffy  
**CLIENT PROJECT:** HFS 2023 Lab  
**PURCHASE ORDER NO.:** 90309  
**LABORATORY NO.:** 99008  
**REPORT DATE:** January 25, 2023  
**Page 2 of 2**

### TEST

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anions in Water by Chemically Suppressed Ion Chromatography, Fluoride, ASTM D 4327.a, %</td>
<td>19.99</td>
</tr>
<tr>
<td>Specific Gravity, ASTM D 1429</td>
<td>1.2181</td>
</tr>
<tr>
<td>pH of 1% Solution with Glass Electrode, ASTM E 75</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Color, APHA, Platinum-Cobalt Scale, ASTM D 1209</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### Fluorosilicic Acid, Hydrogen Titration Includes Free HF, AWWA B703.a

<table>
<thead>
<tr>
<th></th>
<th>Results, wt.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFSA as H2SiF6</td>
<td>24.58</td>
</tr>
<tr>
<td>H2SiF6 as HF</td>
<td>19.79</td>
</tr>
<tr>
<td>Free Acid**</td>
<td>0.20</td>
</tr>
</tbody>
</table>

**Free Acid other than Fluorosilicic Acid, expressed as HF.**

Respectfully submitted  
For Texas OilTech Laboratories, L.P.

Mr. Ikechi "Ike" Ezeji  
Laboratory Director

---

Cert # L22-141.C2021-03719  
These analyses, opinions or interpretations are based on material supplied by the client to whom, and for whose exclusive and confidential use this report is made. Results related only to the items tested. Texas OilTech Laboratories, L.P. and its officers assume no responsibility and make no warranty for proper operations of any petroleum, oil, gas or any other material in connection with which this report is used or relied on. This report may not be reproduced, except in full without prior written approval by Texas OilTech Laboratories, L.P.
March 18, 2024

Pencco, Inc.
ATTN Sarah Duffy
PO Box 600
San Felipe, TX 77473

RE: Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 08-2024 for Supply and Delivery of HYDROFLUSILICIC ACID.

Dear Ms. Duffy,

Based on the clarification letter Pencco, Inc. submitted (see page 3), we are pleased to advise you that the bid submitted by Pencco, Inc. for Bid No. 08-2024 was determined to be the lowest responsive bid for the supply and delivery of HYDROFLUSILICIC ACID during the period July 1, 2024 through June 30, 2025.

The participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Pencco, Inc. for their respective facilities.

Bay Area Chemical Consortium sincerely appreciates your efforts and participation in the competitive bid process.

If you have any questions, please free to contact me at jdyment@bacwa.org

Sincerely,

Jennifer Dyment
Assistant Executive Director
BACWA.org
as Coordinating Agency for the Bay Area Chemical Consortium
Bay Area Clean Water Agencies
Bid Results for Project 08-2024 HYDROFLUSILICIC ACID
Bid Due on February 22, 2024 4:00 PM (PDT)

SINGLE BID AWARD

<table>
<thead>
<tr>
<th>Section</th>
<th>Hydrofulsilicic Acid 23-24%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>East Bay</td>
</tr>
<tr>
<td>Unit of Measure</td>
<td>gal</td>
</tr>
<tr>
<td>Pencco, Inc</td>
<td>3.3000</td>
</tr>
</tbody>
</table>
February 28, 2024

Jennifer Dyment  
Bay Area Chemical Consortium  
P.O. Box 24055  
Oakland, CA  94706

RE: Bid 08-2024 Hydrofluosilicic Acid

Dear Jennifer,

Please be advised I was just informed that the prices we submitted on the above-mentioned bid were entered as a “per wet ton” unit of measure instead of “per gallon”. Please find below the correct unit of measure pricing.

Proper conversion is: Wet ton price / 2000 = wet lb price x 10.2 ppg = per gallon price.

Lot 1 – East Bay - $647/wet ton = $3.30/gallon  
Lot 2 – Marina Sonoma Napa - $624.00/wet ton = $3.18/gallon  
Lot 3 – North Bay - $597.00/wet ton = $3.04/gallon  
Lot 4 – Sacramento - $577.00/wet ton = $2.94/gallon  
Lot 5 – Tri Valley - $597.00/wet ton = $3.04/gallon

Please note, the additional comments submitted with the bid for 2 locations still stand. We apologize for inconvenience and appreciate your review.

If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Sarah Duffy  
Sarah Duffy  
Bid Sec.
SIGNATURES

The parties have signed this Contract, effective as of the day and year first stated above.

CONTRACTOR

Under penalty of perjury, I certify that the information provided here is correct.

Signature: Sarah Duffy

Title: Bid Sec.

Additional Signature (if required):

Title:

CITY OF SACRAMENTO

A Municipal Corporation

APPROVED AS TO FORM:

Signature: Michael Voss

Title: Senior Deputy City Attorney

Reviewed By:

Signature:

Title:

Approved By:

Signature:

Title:

Additional Signature (if required):

Title:
The City of Sacramento ("City") and Univar Solutions USA, LLC ("Contractor"), hereby agree to these Additional Terms and Conditions ("Additional Terms"), effective JULY 1, 2024.

WHEREAS, Contractor is an authorized dealer for Univar Solutions USA, LLC, which entered into Contract No. PRC002849 for Sodium Hydroxide with the Bay Area Chemical Consortium (BACC), dated JULY 1, 2024 ("Cooperative Contract"), in which Contractor agreed to sell Sodium Hydroxide to governmental agencies that are members of BACC’S Cooperative Purchasing Program ("Participating Public Agencies"); and

WHEREAS, the City wishes to purchase Sodium Hydroxide, pursuant to the terms of the Cooperative Contract and these Additional Terms.

NOW THEREFORE, Contractor and the City agree as follows:

1. The City agrees to purchase, pursuant to the terms of the Cooperative Contract, Sodium Hydroxide as set forth in Quotation No. 12-2024.

2. The City shall have all the same rights and obligations as BACC under the Cooperative Contract. The terms of the Cooperative Contract shall apply to this purchase and shall control over any contrary terms included in the attached quotation.

3. Contractor agrees that the equipment shall be delivered to the City no later than SPECIFIED IN DELIVERY DETAILS FROM BID 12-2024.

4. Contractor warrants and represents that the person or persons executing this Agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this contract supplement and bind Contractor to the terms hereof.

5. Except as specifically modified herein, all terms and conditions of the Cooperative Contract shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by these Additional Terms.
**REGIONAL BID AWARD**

Bay Area Clean Water Agencies

---

### Low Bid Prices

<table>
<thead>
<tr>
<th>Region</th>
<th>Brenntag Pacific, Inc.</th>
<th>Univar Solutions USA LLC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST ANNUAL QTY Dry Ton</td>
<td>988.0000</td>
<td>881.2500</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 20% (Caustic)</td>
<td>879.8000</td>
<td>871.6300</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 25% (Caustic)</td>
<td>20% CAUSTIC 25% CAUSTIC 30% CAUSTIC 50% CAUSTIC</td>
<td></td>
</tr>
<tr>
<td>EST ANNUAL QTY Dry Ton</td>
<td>998.0000</td>
<td>862.0000</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 20% (Caustic)</td>
<td>898.0000</td>
<td>840.1500</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 25% (Caustic)</td>
<td>998.0000</td>
<td>862.0000</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 30% (Caustic)</td>
<td>898.0000</td>
<td>840.1500</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 50% (Caustic)</td>
<td>998.0000</td>
<td>862.0000</td>
</tr>
</tbody>
</table>

---

### Bid Totals

<table>
<thead>
<tr>
<th>Region</th>
<th>Brenntag Pacific, Inc.</th>
<th>Univar Solutions USA LLC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST ANNUAL QTY Dry Ton</td>
<td>988.0000</td>
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</tr>
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<td>20% CAUSTIC 25% CAUSTIC 30% CAUSTIC 50% CAUSTIC</td>
<td></td>
</tr>
<tr>
<td>EST ANNUAL QTY Dry Ton</td>
<td>998.0000</td>
<td>862.0000</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 20% (Caustic)</td>
<td>898.0000</td>
<td>840.1500</td>
</tr>
<tr>
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<td>862.0000</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 30% (Caustic)</td>
<td>898.0000</td>
<td>840.1500</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 50% (Caustic)</td>
<td>998.0000</td>
<td>862.0000</td>
</tr>
</tbody>
</table>

---

### Bid Review

- Bids may be awarded by the participating BACC agencies to the lowest, responsive, and responsible bidder for each listed region.
- Per Section 2.16 Method of Award, the lowest overall bid price for each region will be awarded to the lowest, responsive, and responsible bidder.
- The lowest responsive bidder for this chemical will be determined for each region.
- The lowest overall bid price for a particular region may be awarded by the participating BACC agencies to the lowest, responsive, and responsible bidder.

---

**Note:** Highlighted prices are only to show the format. These numbers should not be construed as any indication that BACC has accepted such bid as responsive; see bid review for award recommendation.
Bay Area Clean Water Agencies
Bid Results for Project 12-2024 SODIUM HYDROXIDE
Bid Due on February 22, 2024 4:00 PM (PT)
Number of Addendum Issued: One (1)

<table>
<thead>
<tr>
<th>REGIONAL AWARD</th>
<th>BACC RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sodium Hydroxide 20% Sacramento; Sodium Hydroxide 25% Sacramento, Central/Valley; Sodium Hydroxide 30% North Bay, Sacramento; Sodium Hydroxide 50% Central Valley, East Bay, North Bay, Sacramento</td>
</tr>
<tr>
<td>Item #</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Received via bid platform by bid deadline above</td>
</tr>
<tr>
<td>2</td>
<td>Bids submitted on forms provided</td>
</tr>
<tr>
<td>3</td>
<td>Must include a base unit price for each geographic area</td>
</tr>
<tr>
<td>4</td>
<td>Additional charges for &quot;short load&quot; deliveries shown as a standard deviation on bid form</td>
</tr>
<tr>
<td>5</td>
<td>References: minimum of 3</td>
</tr>
<tr>
<td>6</td>
<td>Product Specification Deviations - if any, proposed specification must be attached</td>
</tr>
<tr>
<td>7</td>
<td>Fully Executed Standard Agreement</td>
</tr>
<tr>
<td>8</td>
<td>Fully Executed Non-Collusion Affidant</td>
</tr>
<tr>
<td>9</td>
<td>For potable application only, Affidavit of Compliance to AWWA and/or NSF standard or Statement by chemical manufacturer, signed on letterhead attesting to the affidavit’s validity or current printout from NSF any</td>
</tr>
<tr>
<td>10</td>
<td>Representative lab analysis of the chemical prepared by reputable outside laboratory or ISO Certified</td>
</tr>
<tr>
<td>11</td>
<td>Name/Address of chemical manufacturer</td>
</tr>
<tr>
<td>12</td>
<td>Product Bulletin and Typical Properties</td>
</tr>
<tr>
<td>13</td>
<td>Safety Data Sheet (SDS)</td>
</tr>
<tr>
<td>14</td>
<td>Addendum/Addenda Acknowledgement</td>
</tr>
<tr>
<td>15</td>
<td>Third Party Hauler? If applicable, name, address, Affidavit signed by Bidder</td>
</tr>
<tr>
<td>16</td>
<td>Specific Deviations Noted</td>
</tr>
</tbody>
</table>

**WE ACKNOWLEDGE RECEIVING ADDENDUM/ADDENDA NUMBER _____ THROUGH _____**

**SPECIFIC DEVIATIONS:**

☐ This box must be checked if bidder has any proposed specific deviations. Per Section 2.12 Proposed Deviations from the Specifications by the Bidder, the absence of a proposed change in the specifications will hold the bidder strictly accountable to the specifications as described in the bid document, including any addendum.

Describe the specific deviations below. A copy of the proposed specifications must be attached to this Standard Agreement at the time of submission, with bidder’s name clearly shown on each document.

Any order less than 2,000 gal will be charged an LTL fee of $475.00 per delivery.

If split loads, the first order will be charged the LTL fee.

Please see the attached 2 pages that list the Sodium Hydroxide deviations

---

**UNIVAX SOLUTIONS PRODUCT TECHNICAL SPECIFICATIONS**

**SODIUM HYDROXIDE, 20% Solution**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, %</td>
<td></td>
<td>20.0</td>
<td>27.5</td>
</tr>
<tr>
<td>Sodium Chloride, ppm</td>
<td></td>
<td>0</td>
<td>120</td>
</tr>
<tr>
<td>Sodium Sulfate, ppm</td>
<td></td>
<td>5</td>
<td>110</td>
</tr>
<tr>
<td>Sodium Nitrate, ppm</td>
<td></td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Sodium Chromate, ppm</td>
<td></td>
<td>8</td>
<td>120</td>
</tr>
<tr>
<td>Iron, ppm</td>
<td></td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Zinc, ppm</td>
<td></td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Some elements may have a maximum or minimum specification.

**UNIVAX SOLUTIONS PRODUCT TECHNICAL SPECIFICATIONS**

**SODIUM HYDROXIDE, 50% Solution**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, %</td>
<td></td>
<td>55.0</td>
<td>57.5</td>
</tr>
<tr>
<td>Sodium Chloride, ppm</td>
<td></td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Sodium Sulfate, ppm</td>
<td></td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Sodium Nitrate, ppm</td>
<td></td>
<td>3</td>
<td>40</td>
</tr>
<tr>
<td>Sodium Chromate, ppm</td>
<td></td>
<td>16</td>
<td>200</td>
</tr>
<tr>
<td>Iron, ppm</td>
<td></td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Zinc, ppm</td>
<td></td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Some elements may have a maximum or minimum specification.
### UNIVAR SOLUTIONS PRODUCT TECHNICAL SPECIFICATIONS

**SODIUM HYDROXIDE, 30% Solution**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, % by Weight</td>
<td>%</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>Sodium (Na), mg/l</td>
<td>ppm</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Sodium (Na), PPM</td>
<td>ppm</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sodium Chloride, mg/l</td>
<td>ppm</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Sodium Chloride, PPM</td>
<td>ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sodium Sulfate, mg/l</td>
<td>ppm</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Sodium Sulfate, PPM</td>
<td>ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Alkalinity, mg/l</td>
<td>ppm</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total Alkalinity, PPM</td>
<td>ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Specific Gravity, g/100 ml</td>
<td></td>
<td>1.09</td>
<td>1.09</td>
</tr>
</tbody>
</table>

* Sodium hydroxide for wastewater treatment applications may contain up to 0 ppm, iron (Fe) and 3 ppm, chloride (Cl)

---

**SODIUM HYDROXIDE, 35% Solution**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, % by Weight</td>
<td>%</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Sodium (Na), mg/l</td>
<td>ppm</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Sodium (Na), PPM</td>
<td>ppm</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sodium Chloride, mg/l</td>
<td>ppm</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Sodium Chloride, PPM</td>
<td>ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sodium Sulfate, mg/l</td>
<td>ppm</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Sodium Sulfate, PPM</td>
<td>ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Alkalinity, mg/l</td>
<td>ppm</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total Alkalinity, PPM</td>
<td>ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Specific Gravity, g/100 ml</td>
<td></td>
<td>1.09</td>
<td>1.09</td>
</tr>
</tbody>
</table>

* Sodium hydroxide for wastewater treatment applications may contain up to 0 ppm, iron (Fe) and 3 ppm, chloride (Cl)

---

Sincerely,

Tom Edmara
Sr. Process Manager - Aqool

---

#12 Univar

1. General Manufacturer’s name and address (If different from Shipment)
2. 3801 Leavenworth Rd., Phila, PA 19130
3. Univar 13002 Los Nuevos Rd., Santa Fe Springs, CA 90670
4. Univar 421 Seaport Blvd., Rancho Cucamonga, CA 91730
BAY AREA CHEMICAL CONSORTIUM
BID FORM FOR BID NO. 12-2024
FOR SUPPLY AND DELIVERY OF SODIUM HYDROXIDE

Sealed bids must be submitted in a PDF format and bidders must enter bid prices into the electronic bid platform (Line Item page) https://bacwa.org/about-bacc/
No later than 4:00 PM, PT Thursday, February 22, 2024

Legal Name of Bidder:
Univar Solutions USA LLC

Business Address
8201 S 212th St.
Kent, WA 98032

Telephone Number: 253-872-5040
Facsimile Number: 253-872-5041
Email Address: munteam-west@universolutions.com

Authorized Representative (Please Print):
Jennifer M. Perras
Signature: 
Date: 2/16/2024

I. All costs except California State sales tax for the purchase of SODIUM HYDROXIDE must be included in the amount shown entered into the electronic bid platform (Line Item page), including any and all mill assessments, fees, excise taxes, transportation charges, etc. Any exceptions to the bid must be noted under Specific Deviations on the Standard Agreement. Bidders shall submit bids per unit of measure as specified in the electronic bid platform (Line Item page).

II. Bidders must submit all of the following, attached to this Bid Form:
   a. All requirements listed in Section 2.21 Manufacturer’s Info.
   b. If applicable, the name, address, and contact information for the third party hauling company as well as an affidavit signed by the Bidder that the third party hauler can and will deliver the chemical to each and every participating BACC Agency.

III. Bidder Obligations
   By signing this Bid Form and entering into individual purchase orders, purchase agreements and/or contracts with BACC agencies, the bidder expressly agrees to be bound by all the provisions of the bid solicitation, including Sections I-IV.
STATE OF WASHINGTON  

COUNTY OF KING  

I, Jennifer Perras, the Municipal Specialist for Univar Solutions USA LLC. ("Univar") being duly sworn, states that I have read RFP#12-2024 and knows its contents and hereby attests that if Univar utilizes the services of a third party hauling company for some or all of its deliveries, Univar will be responsible for ensuring that said hauler can and will deliver the product to each location shown on the bid documents.

Chemical Transfer Co.-3105 El Dorado St., Stockton, CA 95206        #209-466-3554
Bulk Transportation- 415 S Lemon Ave., Walnut, CA 91789        #909-594-2855
Quality Carriers- 2750 Goodrick Ave, Richmond, CA        #510-232-8313
Rj’s Transportation-11949 Hawthorne Ave, CA 92345        #909-732-9144

By

Jennifer M. Perras

SUBSCRIBED AND SWORN to before me this ____ day of February 2024, Jennifer M. Perras.

Notary Public for Washington, County of King
My Commission Expires: 10-10-2026
February 16, 2024

Bay Area Clean Water Agencies

RE: Bid for Sodium Hydroxide, BACC Bid No. 13-2024

To Whom it may concern:

Univar Solutions USA LLC. is pleased to offer a price quote on your ITB due Thursday, February 22, 2024, and has done so on the attached required paperwork.

Our contact information for all things bid and contract related, as well as the information for your local branch, is also attached.

We look forward to hearing the results of your request – we have included a self-addressed, stamped envelope for the bid tabulations.

Thank you,

Jennifer Perras
Sr. Municipal Bid Specialist
Western Region
Univar Solutions USA LLC.
Muniteam-west@univarsolutions.com
www.univarsolutions.com

Please Note: Where applicable, any State, Federal or other appropriate taxes and/or the California Mill Assessment will appear as separate line items on any invoices from Univar. If Univar’s offer (pricing) was inclusive of these charges – they will be backed out of the “product” line item and shown as their own line item(s) at the time of billing.

Please Note: Cooperative Purchasing/Contract Piggy-Back Clauses: Unless otherwise checked “yes” within the attached offer, it is Univar’s standard policy NOT to agree to/participate in Cooperative Purchasing but rather to work with each individual agency and reach a pricing agreement that is based on their needs and is advantageous for both parties. Unless otherwise noted within the attached offer – pricing within is only applicable for the locations (and any potential locations) listed within these bid documents.
CERTIFICATE OF SECRETARY

I, Jumoke Onibokun, hereby certify that:

1. I am the duly elected, qualified and acting Assistant Secretary of Univar Solutions USA LLC, a Washington Limited Liability Company (the "Company"), and am a custodian of the corporate records of the Company and am familiar with the matters herein certified.

2. The below list of persons are authorized to execute, for and on behalf of the Company, written municipal bids or municipal proposals for the sale of other disposition of products up to $2.5 million handled by the Company.

   Shawnasey McCarthy - Municipal Commercial Manager
   Victoria Meakim - Municipal Specialist
   Roise Holiday-Henry - Municipal Specialist
   Jennifer Perras - Sr. Municipal Specialist
   Shelley Riggle - Municipal Specialist
   Stacy Ziegler - Municipal Specialist
   Raven Claudio - Municipal Specialist
   Ileana Caballero - Municipal Specialist

IN WITNESS WHEREOF, I have executed this Certificate of Secretary of the Company this 4th day of January 2024.

[Signature]
Jumoke Onibokun, Assistant Secretary

State of Illinois  )
                    )
County of DuPage    )

This Certificate of Secretary was signed and sworn before me on this 4th day of January 2024 by Jumoke Onibokun, Assistant Secretary of Univar Solutions USA LLC.

[Seal]
Sanema Gorodetsky
Notary Public
My commission expires July 25, 2026
GENERAL INFORMATION

Regular Office Hours during which orders may be placed:

Monday – Friday  7:00 am – 5:00 pm (PST)

In case of an emergency during non-business hours:

For Non-Chemical Emergencies:

After-hours emergency – 24-hour response:

Jennifer Bernhard -  (650) 216-8909 (cell)
Brian Wills-        (650) 670-7267 (cell)
CS Afterhours/emergency number: 480-573-4726

For Chemical Related Emergencies:   ChemTrec:   (800) 424-9300

Names, telephone/FAX numbers of those responsible for taking orders and initiating delivery:

Office Phone:  (800) 659-5908
Office Fax:    (408) 435-1735
Customer Service:  (800) 659-5908  CustSolWR@univarsolutions.com

Sales Contact:

Danielle Pruett
Sales Account Manager
Phone: 559-365-0273
Danielle.Pruett@univarsolutions.com

For anything pertaining to bids:

Please send all bid packets/documents to:
(Unless otherwise specified)

Univar Solutions USA Inc.
Attn: WER Muni Team
8201 S. 212th
Kent, WA 98032-1994

Contacts: muniteam-west@univarsolutions.com

Jennifer Perras
Municipal Specialist
Phone: (253) 872-5040
Fax: (253) 872-5041
Jennifer.perras@univarsolutions.com

Roise Holiday
Municipal Specialist
Phone: (253) 872-5068
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Roise.Holiday@univarsolutions.com

Stacy Ziegler
Municipal Specialist
Phone: (253) 872-5023
Fax: (253) 872-5041
Stacy.ziegler@univarsolutions.com
Shawnasey McCarthy
Municipal Business Manager
(253) 872-5052
(253) 872-5041
Shawnasey.mccarthy@univarsolutions.com

Remittance Address:
Univar Solutions USA Inc.
62190 Collections Center Drive
Chicago, IL 60693-0621
Please include remit information

Standard Payment Terms:
Net 30 days
Mission Statement

Univar sets out to be the preferred quality partner for the distribution of chemicals and services. We combine economic success with social and environmental responsibility.

Vision Statement

Be the benchmark of excellence.

Quality Policy

Univar USA Inc. is committed to the success of our customers and supplier partners by providing value-added products and services that consistently meet requirements. In the spirit of innovation, management encourages full employee participation in the continuous review and improvement of Univar's business processes and its total quality process.

Statement of Core Values

* Safety: Safety is the first priority, the most important aspect of our work.

* Continuous Improvement: We will improve results for all our stakeholders by doing the right things better every time.

* Employees: We respect and value every employee and are committed to support and develop each other personally and professionally.

* Environment: We are committed to protecting the health and well-being of our employees, our customers, the community and the environment.

* Ethics: We treat every individual in our business and personal practices ethically with integrity and honesty.

* Leadership: Each of us strives to lead and motivate by example and consistently live up to these core values. We coach, train, develop and empower employees to reach their full potential.
Univar Solutions USA Inc.
Supplier Information
Company Overview

Univar is a leading global distributor of industrial and specialty chemicals, with an extensive network of over 260 distribution facilities in North America, Europe, the Asia-Pacific region, and Latin America, and additional sales offices in Eastern Europe, the Middle East, and Africa.

We serve over 115,000 customers in more than 115 countries, representing nearly every major industry and a highly diverse set of end markets.

We source chemicals from more than 3,500 producers, including the premier global chemical manufacturers, and distribute more than 4,500 chemical products in over 110,000 stock keeping units.

In addition to our vast product offering, we provide important value-added services for our customers and suppliers, including:

- Product availability and inventory management
- Product specification and technical expertise
- Blending and mixing
- Repackaging and labeling
- Just-in-time delivery
- Vendor rationalization programs
- Waste management

Our scale, geographic reach, diversified distribution channels, industry expertise, and comprehensive product portfolio enable us to develop strong, long-term relationships with our suppliers and to provide a single-source solution for our customers.

As a world leader in chemical distribution, Univar is committed to being a responsible corporate citizen with a global focus on safety, health, the environment, and sustainability.
Univar Solutions USA Inc.
Quality Assurance Statement

Univar USA Inc. ("Univar") offers this statement in regards to those quality measures it takes to provide quality products to you, its customer.

- Univar provides products that meet the manufacturer's specifications.
- Univar retains packaging samples and quality-related documents in accordance with its record retention program, which specifically calls for the retention of FDA regulated samples, and quality-related documents for three (3) years and CP samples and quality-related documents for six (6) years.
- Under Univar's Management of Change process, Univar forwards notices from a product's manufacturer related to ingredients, changes in processing sites, and manufacturing processes in a timely manner.
- Univar has a formalized recall process and provides notice of any known recalls or other matters that come to its attention that may directly or indirectly impact a product.
- Univar's quality control, employee training, and Safety, Health & Environmental programs meet industry standards.
- Univar develops, and maintains operational plans to meet, all federal, state, and local laws, rules, and regulations related to the packaging, storing, and distribution of products.
- Univar has facilities in the U.S. that are ISO 9001:2000 registered, including Univar's corporate office.
- Univar's facilities that handle FDA regulated product meet FDA cGMP standards.
- Univar's computer systems maintain various security controls to ensure proper management of information.

For food grade and pharmaceutical grade products:

- Univar treats FDA products under cGMP standards.
- Univar maintains strict laboratory controls, including Out of Specification ("OOS").
- Univar has a formal complaint process for all FDA regulated products.
- Univar performs bi-annual audits on its food grade packaging facilities to ensure quality and safety.
- Univar FDA packaging facilities and processes meet 21 CRF Part 210.
- Univar packages, stores, and transports under cGMP standards.
- Univar provides a Certificate of Analysis ("COA") with each shipment.
- Univar performs stability testing on all FDA Univar-packaged products.
- Univar maintains master files and individual batch files for all lots of FDA Univar-packaged products allowing full traceability.
- Univar assigns unique lot numbers and sequential numbers to its FDA Univar-packaged products.

Univar USA Inc
In the event of an emergency situation such as a hurricane or other natural disaster, Univar's municipal water and wastewater accounts are given priority service over industrial customers.

Univar USA, Inc., has 124 locations across the US with thousands of trucks, 30 million gallons of bulk storage and over 10 million square feet of warehouse storage.

Our trucks are equipped with power and do not need electricity to deliver.

Our drivers are trained each year in spill control and containment, hazardous communication and modules of the Hazardous Waste Operations and Emergency Response Standard (HAZWOPER).
BAY AREA CHEMICAL CONSORTIUM

REQUEST FOR BIDS
BID NO. 12-2024

FOR SUPPLY AND DELIVERY OF SODIUM HYDROXIDE

BID DUE DATE: 4:00 P.M. PT, Thursday, February 22, 2024
BID OPENING DATE: 4:00 P.M. PT, Thursday, February 22, 2024

Coordinating Agency:
Bay Area Clean Water Agencies
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NOTICE INVITING SEALED BIDS
FOR SUPPLY AND DELIVERY OF SODIUM HYDROXIDE
BAY AREA CHEMICAL CONSORTIUM (BACC)
BID NO. 12-2024

The Bay Area Chemical Consortium (BACC), a cooperative group of public agencies, is seeking competitive sealed bids for the supply and delivery of SODIUM HYDROXIDE. All sealed bids to be considered for this solicitation must be received via our electronic bid platform https://bacwa.org/bacc/ by 4:00 P.M. PT, Thursday, February 22, 2024. Bids received after said date and time will not be considered under any circumstances. Bids submitted by mail or by facsimile will not be accepted. BACC and its member agencies reserves the right to reject any and all bids and to waive informalities and immaterial irregularities or technical defects in the bids received.

For additional information or any questions concerning this bid, use the public Q&A Forum in our electronic bid system.
SECTION I

BAY AREA CHEMICAL CONSORTIUM
GENERAL
FOR BID NO. 12-2024
SODIUM HYDROXIDE
Sealed bids will only be received electronically via our electronic bid platform https://bacwa.org/about-bacc/ no later than 4:00 P.M. PT, Thursday February 22, 2024.

1. **GENERAL PROVISIONS**

The Bay Area Chemical Consortium (BACC) is a cooperative group of public agencies each individually established under the laws of the State of California. For this particular bid solicitation, the participating member agencies include those listed in Section III-1, Estimated Annual Quantities. These participating BACC agencies, acting collectively through their authorized agents, are seeking competitive sealed bids for the supply and delivery of Sodium Hydroxide.

Sealed bids will only be received electronically via our electronic bid platform https://bacwa.org/about-bacc/ no later than 4:00 P.M. PT, Thursday February 22, 2024. Bids received after said date and time will not be considered under any circumstances.

BACC and its member agencies reserve the right to reject any and all bids and to waive informalities and immaterial irregularities or technical defects in the bids received.

If you have any questions regarding this bid, please contact the BACC Coordinators via the electronic bid platform https://bacwa.org/about-bacc/ Q&A forum. Preliminary bid results will be available via our electronic bid platform shortly after the opening date and time.

2. **INSTRUCTIONS TO BIDDERS**

To receive consideration, bids must be made in accordance with the following instructions:

2.1 **Bid Contract Documents**

Bids must be submitted only using the forms provided in Section IV, Bid Contract Documents that includes the following: **Bid Form, Standard Agreement, and Non-Collusion Affidavit**, collectively, the bid contract documents. Bidder must submit bids price per unit of measure as specified via the electronic bid platform https://bacwa.org/about-bacc/. Do not submit the Worksheet. Bid prices submitted on Worksheet will NOT be accepted. All items in the bid contract documents must be filled out completely, signed and dated. The bid contract documents may be rejected if they show any omissions, alterations of form, the addition
of information not requested, a conditional bid, or irregularities of any kind. A complete bid submittal must include all of the following components of the bid contract documents:

- A completed and signed Bid Form, including all the attachments requested;
- A fully executed Standard Agreement, including references and acknowledgement of receiving any and all addenda, with any deviations duly noted;
- A fully executed Non-collusion Affidavit.
- The information required by Section 2.21 as referenced in the Bid Form.
- Name and address of any Third Party Hauler as required by Section 2.5 and the Bid Form, as well as the affidavit referenced in the Bid Form.

Bidder must submit bids price per unit of measure as specified via the electronic bid platform https://bacwa.org/about-bacc/ (Line Items section).

2.2 Estimated Quantity
The quantities indicated are estimates of anticipated usage for a 12-month period and are given for informational purposes only. Nothing in these estimated annual quantities must be construed as obligating any participating BACC agency to purchase specific quantities, as these quantities may vary depending on actual operating conditions and demands during the contract term. All participating BACC agencies reserve the right to purchase any volume of the chemical listed, at the contract price, regardless of stated estimates of quantities. No price adjustments will be allowed as a result of an increase or a decrease in the quantity purchased. For this particular bid solicitation, the estimated annual chemical quantity of each participating member agencies is listed in Section III-1, Estimated Annual Quantities.

2.3 Delivery Locations
The participating BACC agencies are grouped according to their location by relative geographic region. The bidder must quote uniform bid prices for deliveries made to each of the distinct geographic regions. For this particular bid solicitation, the distinct geographic regions for each agency are defined in Section III-1, Estimated Annual Quantities, as well as in Section III-2, Delivery Details.

2.4 Bid Pricing
All bids submitted must include a base unit price, FOB destination, for the chemical for each geographic region per paragraph 2.3 Delivery Locations. Bidders shall provide bid prices via the electronic bid platform https://bacwa.org/about-bacc/ including all costs associated with providing and delivering the chemical to the agency’s facility, including materials, labor, equipment, transportation, insurance, overhead, profit, and all applicable taxes except sales tax in effect at the time of delivery. Bids qualified by additional or conditional charges such CPI, escalators, fuel surcharges, or transportation charges between the supplier and the final delivery points will not be allowed.

BACC agencies that use a chemical for treating water for resale may be exempt from paying sales tax, and it will be the responsibility of each BACC agency to notify the successful bidder if some or all of their purchases will be exempt from sales tax per paragraph 3.6 Taxes.
Bid prices must be based on bulk deliveries amount as specified via the electronic bid platform https://bacwa.org/about-bacc/. Bids that do not include unit prices for bulk deliveries to each geographic region specified on the electronic bid platform will be considered irregular and, at the option of BACC and the participating BACC agencies, may be eliminated from further consideration. For bulk deliveries of less than this specified amount, the bidder may, at their option, assess additional charges for “short loads” unless specific requirements for smaller deliveries are described in paragraph 3.7 Delivery Requirements. Any additional “short load” charges must be shown by the bidder as a specific deviation on the bid contract documents. Bidders and/or third party haulers will not be allowed to refuse to make “short load” deliveries.

Any optional item will be shown as a separate line item in the electronic bid platform https://bacwa.org/about-bacc/ and bidders may, at their option, submit unit prices for the optional item. Bids that do not include unit prices for optional item will not be considered irregular and therefore such bids will not be rejected for that reason.

If participating BACC agencies require non-bulk deliveries in containers such as buckets, barrels, or totes, it will be shown as a separate line item in the electronic bid platform https://bacwa.org/about-bacc/. Bidders may, at their option, submit unit prices for deliveries in buckets, barrels, or totes. Bids that do not include unit prices for buckets, barrels, or totes will not be considered irregular and therefore such bids will not be rejected for that reason. If none of the participating BACC agencies require non-bulk deliveries in containers such as buckets, barrels, or totes, the electronic bid platform https://bacwa.org/about-bacc/ will not include spaces to enter bid prices for such non-bulk deliveries in containers such as buckets, barrels, or totes, however, if a participating BACC agency later decides that they need deliveries in containers, bidders may, at their option, negotiate with the BACC agency to determine a price for deliveries in containers such as buckets, barrels, or totes.

2.5 Bidder Qualifications
A qualified bidder is one determined by BACC and the participating BACC agencies to meet standards of business competence, reputation, financial ability, and product quality. A responsive bidder is a firm/person who has submitted a bid that conforms in all material respects to the terms and conditions, the specifications of the chemical, and any other requirement of the bid instructions. A responsible bidder is a firm/person who has the capability in all aspects to perform full contract requirements, and who has the integrity and reliability that will assure good faith and specific performance. Bidders that intend to utilize a third-party hauling company for completing some or all of their deliveries must indicate the name and contact information of the third-party hauling company on the Bid Form. Before submitting a bid, the bidder must carefully examine and read all parts of the bid contract documents and be fully informed as to all existing conditions and limitations. It should be noted that, upon selection and approval of the successful bidder, the entire contents of the bid contract documents will become part of the full contract between the participating BACC agency and successful bidder (see paragraph 3.5 Purchase Orders / Contracts).
2.6 Authorized Signatory of Bid Contract Documents
The person signing the submitted bid must be fully authorized to represent and legally bind the bidding company to the terms and conditions described herein. A corporate officer must sign bids by corporations in the corporate name. The State of incorporation must be written in below the corporate name. Bids by partnerships must be signed in the partnership’s name and signed by a partner with his/her title shown.

2.7 References
The bidder must submit with the bid a list of a minimum of three references that have purchased similar chemicals and services from the bidder. The bidder must provide the company or agency name, contact name, and telephone number for each reference. Whenever possible, bidders should provide references for customers from the same geographic regions as the participating BACC agencies. Bidders may provide references from BACC agencies. These references must be shown on the Standard Agreement contained herein.

2.8 Bid Submittal
Electronic bids will only be received via the electronic bid platform https://bacwa.org/about-bacc/ by no later than 4:00 P.M. PT, Thursday, February 22, 2024. Electronic bids shall contain all required attachments and information. Bidders must submit bids price per unit of measure as specified via the electronic bid platform https://bacwa.org/about-bacc/ (Line Item section). Bidders are cautioned that failure to comply may result in non-acceptance of the bid. Bids received after said date and time will not be considered under any circumstances. BACC will not be responsible for any delays or transmission errors. Bidder accepts all risks of late delivery of electronic bids. It is the bidder’s responsibility to ensure that bid submitted is received by the electronic bid platform https://bacwa.org/about-bacc/ prior to scheduled bid opening. Any attachment will remain sealed and will not be opened until the appointed bid opening date and time. Bidders not receiving confirmation receipt should contact the electronic bid platform vendor https://bacwa.org/about-bacc/ to make sure that their electronic submittal has gone through.

2.9 Modification, Addenda, and Interpretations
Any explanation desired by the bidders regarding the meaning or interpretation of this particular bid solicitation including the bid contract documents must be requested via the electronic bid platform Q&A Forum at least five (5) business days prior to the time set for the bid opening. Any and all such interpretations or modifications must be in the form of a written request to the BACC Coordinator via the electronic bid platform Q&A Forum. All changes to this particular bid solicitation document including the bid contract documents initiated by the BACC Coordinator will be through written addenda and furnished to all bidders via the electronic bid platform. Addendum will be issued no later than 72 hours before bid opening. Any written addendum issued 72 hours before the date and time of the bid opening will become a part of the bid contract documents and must be acknowledged on the Standard Agreement form that each bidder submits. Failure to acknowledge any and all the addendum(s) on the Standard Agreement form may be cause for rejection of the bid.
2.10 Modification of Bids
A bidder may modify their bid via the electronic bid platform prior to the date and time of the bid opening. Modifications of any bid prices, terms and conditions must be electronically submitted via the electronic bid platform prior to the time of the bid opening. It shall be the responsibility of the respective bidder to determine if their written modification was received in time by electronic bid platform. BACC reserves the right to accept or reject any proposed modifications of the bid terms and conditions.

2.11 Withdrawal of Bids
Any bid may be withdrawn any time prior to the stated bid opening date and time (closing time) only via the electronic bid platform. The withdrawal request must be executed by the bidder or a duly authorized representative. The withdrawal of the bid does not prejudice the right of the bidder to file a new bid prior to the bid closing time. No bids may be withdrawn after the bid opening date and time.

2.12 Proposed Deviations from the Specifications by the Bidder
Any deviation from the specifications described herein or in a written addendum that is proposed by a bidder must be noted in detail on the Standard Agreement form, and a copy of the proposed specification must be attached to the Standard Agreement form at the time of submission. The absence of a proposed change in the specifications will hold the bidder strictly accountable to the specifications as described herein. If proposed deviations from the specifications are submitted, the bidder’s name should be clearly shown on each document. Each BACC agency will be responsible for individually accepting or rejecting any proposed deviations from the described specifications.

2.13 Competency of Bidders
Before any contract is awarded, the bidder may be required to furnish a complete statement of financial ability and experience in performing the proposed services. In accordance with the provisions of the California Business and Professions Code and other regulations, the bidder must have and maintain current any and all necessary licenses or certificates.

2.14 Rejection of Bids
The BACC and/or its individual agencies reserves the right to reject any and all bids and reserves the right to waive a bid deficiency or reject a bid for any reason, including but not limited to the following: informalities, nonconforming, non-responsive or conditional bids, bids showing any alterations of form or erasures or irregularities of any kind, additional information not requested, incomplete bids, or bids not conforming with the instructions in any way. Bidders that plan to utilize a third-party hauling company that refused to deliver to one or more of the participating agencies in the past three (3) years will be rejected as non-responsive.

2.15 Opening Bids
A preliminary bid results showing apparent lowest bid will be available on the electronic bid platform shortly after the bid opening date / time.
2.16 Method of Award
Bids may be awarded to the lowest responsive and responsible bidder for each listed region meeting the specifications for bulk loads for the chemical. The lowest responsive bidder for this chemical will be determined for each region listed on the Bid Form. The bidder that meets the specifications and submits the lowest overall bid price for a particular region may be awarded the bid by the participating agencies in that region, assuming the bid is determined by BACC to be complete and in compliance with the bid requirements. The lowest overall bid price for each region will be determined by multiplying the estimated annual quantity for each participating agency within the particular region by the bid prices for the region, and adding up the aggregate cost. BACC has the right to delete terms or options from the bid contract documents, and reserves the right to reject any and all bids and to waive irregularities in said bids. The following is a non-inclusive list of criteria that must be used in award of the bid:

a. Unit cost of the chemical
b. Product specifications
c. Warranties or standards of quality
d. Capabilities to deliver product throughout the contract term
e. Bidder’s reputation, competency, and previous customer service record
f. Third party hauling company’s reputation, competency, and previous customer service record (if applicable)
g. Fully executed non-collusion affidavit

2.17 Disqualification of Duplicate or Collusive Bidders
More than one bid proposal from an individual, a firm or partnership, a corporation or an association under the same or different names will not be considered. Reasonable grounds for believing that any bidder is interested in more than one bid for the bid contemplated will cause rejection of all bids in which such bidder is interested. If there is reason for believing that collusion exists among the bidders, any and all bids may be rejected. Bidders must execute and submit with their bid the Non-Collusion Affidavit included in the bid document.

2.18 Identical Bids
In the case of tied or identical bids corresponding to the proposed unit costs, BACC reserves the right to award the bid based on additional criteria. If a tied bid is not rejected for any reason as described in paragraph 2.16 Method of Award, then any additional costs described in the “Specific Deviations” such as short load adders, will be used to determine the lowest responsive bidder. If considering additional costs as described in the “Specific Deviations” still doesn’t produce a winning bidder (i.e. if the tied bidders quote identical short load adder prices), then any exceptions or conditions described in the “Specific Deviations” will be considered in an effort to determine the lowest responsive bidder. If the latter still fails to produce a winning bidder, then BACC will draw lots by placing the names of the tied bidders in a hat and drawing a name. If drawing lots is deemed necessary, BACC will schedule a time to draw lots and the tied bidders will be invited to attend and witness the drawing.
2.19 Material Warranty
Before the bid is awarded and, if applicable, the bidder may be required to furnish a complete statement of the origin, composition and manufacture of any or all chemicals to be supplied, together with samples. The samples may be subjected to tests to determine their quality and fitness for the intended uses.

2.20 Bid Summary
Bid proposals will be summarized and reviewed with the BACC agencies following the bid opening. Bid summaries or tabulations will also be provided to the responsive bidders within ten (10) business days following the bid opening. After a careful review of the bids by each of the participating BACC agencies, bids may be awarded based on the criteria outlined in paragraph 2.16 Method of Award.

2.21 Manufacturer’s Information
Bidders must submit with their bid contract documents the following:

a. In accordance with Section 64590, Title 22 of the California Code of Regulations (CCR), no chemical or product shall be added to drinking water by a water supplier unless the chemical or product is certified as meeting the specifications of NSF International/American National Standard Institute (NSF/ANSI) 60-2005 [Drinking Water Treatment Chemicals—Health Effects]. Certification shall be from an ANSI accredited product certification organization whose certification system includes the criteria for ensuring the chemical or product meets NSF/ANSI Standard 60 per Section 64590 of the CCR. Bidders must submit an affidavit of compliance from the ANSI accredited product certification organization. Bidders must include a statement by the chemical manufacturer, signed by an authorized representative on letterhead stationery, attesting to the affidavit’s validity. In lieu of submitting an affidavit of compliance and a letter attesting to the affidavit’s validity, a current printout from the ANSI accredited product certification organization is acceptable.

b. A representative analysis of the chemical to be supplied, as prepared by a reputable outside laboratory or bidder’s in-house laboratory if ISO certified.

c. Name and address of the chemical manufacturer.


e. Safety Data Sheet (SDS).

3. SPECIAL INSTRUCTIONS TO BIDDERS

3.1 Chemical Requirements
The chemical to be provided under the terms and conditions of this bid must meet the bid specifications described in the pages that follow.

3.2 Safety Requirements
The bidder, their employees, subcontractors, and/or agents must conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety, and they must adhere to all State, Federal and Occupational Safety and Health Act (OSHA) safety standards, including compliance with any applicable State or local health order related to COVID-19 while they are on the premises of any BACC
agency. Furnished equipment, materials, and/or services must comply with all OSHA standards and regulations, and all applicable governmental laws and orders. The BACC agencies reserve the right to individually refuse any shipment, at their sole discretion, which cannot be unloaded using safe and proper techniques. Any such refusal must result in the return of the chemical at the successful bidder’s sole expense. If requested by a participating BACC agency, the successful bidder and/or the firm providing transportation of the chemical shall submit to a safety briefing at the BACC agency’s site before commencing deliveries to the respective BACC agency. The successful bidder and/or the firm providing transportation of the chemical are required to comply with the site specific safety requirements of each participating BACC agency. Bidders should be aware that some BACC agencies do not allow smoking on site. Site safety requirements will be available for review during the bid period upon request to the BACC Coordinator. In addition, if requested by a participating BACC agency, the successful bidder and/or the firm providing transportation of the chemical may be asked to review site safety materials and provide a signed acknowledgement of their receipt of the site safety materials.

3.3 Spillage
The successful bidder must be prepared to provide safety training on the safe handling and use of the chemical and emergency procedures in the event of a leak or spill. Should a chemical spill or leak result due to negligence, faulty equipment, or inferior packaging on the part of the bidder or their agents, the bidder and their agents must be responsible for cleaning the spill or leakage and for bearing any cost incurred due to spill or leakage clean-up. It must be the successful bidder’s responsibility to effect immediate containment, clean-up, disposal, and restoration activities in accordance with the individual facility’s requirements and any and all applicable laws and regulations. All material associated with such clean-up operations must be hauled away and lawfully disposed of at no charge to the agency where the delivery is being made. The property of the agency where the delivery is being made must not be used for such disposal. If the spill is NOT cleaned up, the agency will hire a certified hazardous material handling company to clean up the spill, and the costs incurred, including any fines or penalties which may be imposed by regulating authorities, will be charged to the bidder or deducted from amounts owed. Chemicals must stay in the possession of the bidder and must not be unloaded until accepted by the participating BACC agency. All chemicals must be delivered in accordance with Department of Transportation regulations.

3.4 Chemical Orders
All orders placed throughout the contract period, as defined in paragraph 4.11 Term of Contract, will be initiated separately by each participating BACC agency, and each BACC agency will be responsible for the coordination of all aspects of those orders with the successful bidder. Inquiries in reference to individual orders during the contract period must be directed to the appropriate BACC agency.

3.5 Purchase Orders / Contracts
Individual purchase orders, purchase agreements, and / or contracts will be issued to the successful bidder by each participating BACC agency, and all chemical sales must be invoiced separately to the respective BACC agency. Each BACC agency may require additional contract requirements specific to the agency which are not included in this bid document and bidders need to contact the agencies for specific details
and perform due diligence prior to submitting a bid. The contracted unit cost of the chemical is the awarded bid price. The successful bidder may seek a price increase for any nontrivial change requested by the participating BACC agency in the terms and conditions of the participating BACC agency's purchase order, purchase agreements, and/or contracts. The successful bidder may not change the price throughout the term of the contract unless by mutual written agreement between BACC agency and successful bidder per Section 4.4 Modification of Contract.

3.6 Taxes
Pursuant to the Sales and Use Tax Law, water treatment facilities are entitled to submit Resale Certificates to the California State Board of Equalization which exempt that utility from paying sales tax on any chemical purchased for the expressed use of producing a consumable water product. The participating BACC agencies that provide potable and/or recycled water to customers will be responsible for providing the successful bidder with these certificates or letter documenting their determination if the chemical they seek to purchase is exempt from sales tax. BACC agencies that do not notify the successful bidder that their agency is exempt from paying sales tax shall be invoiced with sales tax shown as a separate, itemized cost on the invoice. Chemicals purchased solely for the use in wastewater treatment and disposal facilities are subject to sales tax.

3.7 Delivery Requirements
Bidders are responsible for reviewing each of the listed delivery locations or geographic regions for each participating BACC agency and ensuring that their product can be delivered to each location prior to submitting a bid. Bidders that intend to utilize the services of a third party hauling company for some or all of their deliveries are responsible for ensuring that the hauler they have selected can and will deliver their product to each location listed in Section III-2, Delivery Details, and for submitting an affidavit pertaining to assurance with their bid. Failure to provide this assurance and submit an affidavit may be cause for rejecting their bid. Delivery bills of lading must be provided for each shipment. All bulk shipments must include a weight ticket from a certified weigh station in addition to a shipping manifest. Delivery times and dates must be coordinated between the successful bidder and each participating BACC agency on a schedule that meets the needs of the BACC agency, but at no time can a delivery occur more than seven (7) days after the order is placed unless the respective BACC agency requests a later delivery. No delivery can be made when a BACC agency representative is not on site. The successful bidder must notify the BACC agency of any anticipated late deliveries at least 24 hours in advance of the scheduled delivery time and date, unless delivery delays are the result of in-route transportation delays, then notification must be provided as soon as possible to inform the BACC agency of the anticipated delivery date and time. Persistently late or cancelled deliveries (defined as three or more over the contract period) may be used as a basis for contract termination. Failure to provide notice of late delivery as required by this section may also be a basis for contract termination. Any deliveries not meeting chemical quality, regulatory, safety, or delivery requirements will be returned to the successful bidder at no cost to the BACC agency, and must be re-delivered by the bidder within 48 hours of the unacceptable delivery.
3.8 Force Majeure
Any bidder that anticipates a workforce interruption, including due to COVID-19 restrictions, or a production shutdown that could affect delivery of the chemical must fax or e-mail notifications to all participating BACC agencies to notify them of the potential interruption in deliveries. A telephone call must also be made to each BACC agency as a follow-up notification.

3.9 Safety Data Sheet (SDS)
Bidders must submit a Safety Data Sheet (SDS) for the product offered with the bid. The successful bidder must provide a new SDS for the chemical with the first delivery or if the SDS is modified during the contract term.

3.10 Payments
Payments for all chemicals will be made individually by each participating BACC agency thirty (30) days after receipt of a complete and accurate invoice. BACC itself does not have any legal authority to conduct business and therefore cannot be held responsible for the financial arrangements made between each individual BACC agency and the successful bidder. Cash discounts for early remittance of payment must be stated on the invoice, if applicable. The bidder is responsible for submitting accurate invoices to each BACC agency. The BACC agencies are not responsible for late payments resulting from the submission of inaccurate invoices. If bidder continues to submit inaccurate invoices after being put on notice by the BACC agency, the contract between the bidder and the BACC agency may be terminated.

3.11 Legislative Impacts
In the event the legislative body of any BACC agency fails to appropriate funds for the purchase of the chemical, the respective BACC agency may terminate such contract without penalty and thereupon be released of further obligation.

3.12 Subcontracting
No portion of the bid award may be subcontracted to another chemical manufacturer or supplier without the prior written approval of all of the participating BACC agencies.

3.13 Laws and Regulations
All applicable State of California and Federal laws, City, County, and Special District ordinances, licenses, and regulations of all participating BACC agencies having jurisdiction must apply during the contract period, including any applicable State or local health order related to COVID-19.

3.14 Insurance
For services requiring the supplier’s or their subcontractor’s presence on any BACC agency property, the successful bidder must acquire and maintain at their expense for the duration of the term of the contract the following insurance policies: Workers’ Compensation, Employer’s Liability, Commercial General Liability, Business Vehicle and Automobile Liability, and Contractor’s Pollution Liability Insurance coverage from insurers either (i) admitted by the California Insurance Commissioner to do business in the State of California and rated no less than A.M. Best’s rating of no less than A:VII, or (ii) authorized by the BACC
agency’s risk manager(s) or his/her designee at any time in his/her sole discretion, all relating to the supplier’s services to be performed hereunder covering the BACC agency’s risks. The minimum amounts of coverage, and the breadth of coverage, corresponding to the aforesaid categories of insurance per insurable event, must be as follows, however, the insurance limits available to each participating BACC agency, their officers, officials, employees, agents and volunteers as additional insured parties, shall be the greater of the minimum limits specified herein or the full limit of any insurance proceeds available to the named insured:

<table>
<thead>
<tr>
<th>INSURANCE CATEGORY</th>
<th>MINIMUM LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers’ Compensation Insurance</td>
<td>California Statutory Minimum</td>
</tr>
<tr>
<td>Employer’s Liability Insurance</td>
<td>$2,000,000 per accident, and $1,000,000 per employee for bodily injury or disease.</td>
</tr>
<tr>
<td>Commercial General Liability Insurance</td>
<td>$5,000,000 per occurrence for bodily injury, personal injury, and property damage.</td>
</tr>
<tr>
<td>Business Vehicle and Automobile Liability Insurance</td>
<td>$2,000,000 per accident for bodily injury and property damage.</td>
</tr>
<tr>
<td>Contractor’s Pollution Liability</td>
<td>$1,000,000 per occurrence, $2,000,000 policy aggregate.</td>
</tr>
</tbody>
</table>

Prior to commencement of any performance under the contract, the successful bidder must furnish to each participating BACC agency an original Certificate of Insurance, and copies of information or declaration pages for the insurance required with respect to evidence of all policies of insurance required as noted above. All policies of insurance must be endorsed to name the respective BACC agency, their officials, officers, employees, agents, and volunteers as additional insured parties. For any claims related to the contract, bidder’s insurance coverage shall be primary insurance with respect to each participating BACC agency, their officials, officers, employees, agents and volunteers. Any insurance or self-insurance maintained by any BACC agency party, their officials, officers, employees, agents and volunteers shall be excess of the bidder’s insurance and shall not contribute with it. The successful bidder will be responsible for contacting each participating BACC agency to ascertain the proper name or names of the agency specific entities to be included in the endorsements.

The successful bidder must also provide each participating BACC agency with a MSC-90 endorsement, required for transporters of hazardous materials and/or wastes.

The successful bidder hereby agrees to waive subrogation which any insurer of the bidder may acquire from vendor by virtue of the payment of any loss. Bidder agrees to obtain and provide to each BACC agency any endorsement that may be necessary to affect this waiver of subrogation. The Workers’ Compensation policy shall be endorsed with a waiver of subrogation in favor of each participating BACC agency for all work performed by the bidder, its employees, agents and subcontractors.

The successful bidder must maintain the required insurance at all times while the contract is in effect, and must replace any certificate, policy or endorsement which will expire prior to that date. All policies of
insurance must be endorsed to provide the required insurance and must not be suspended, voided, reduced, canceled, or allowed to expire except on thirty (30) days prior written notice to each participating BACC agency. The Certificate of insurance must have a cancellation statement worded as follows: “Should any of the above described policies be cancelled before the expiration date thereof, the issuing company must mail thirty calendar (30) written notice to the Certificate holder named to the left.”

4. TERMS AND CONDITIONS

4.1 Indemnification
To the fullest extent allowed by law, the successful bidder and its employees, subcontractors, and agents shall defend, indemnify, and save and hold harmless each participating BACC agency, its officers, agents, employees and volunteers from any claims, suits or actions of every name, kind and description brought forth, or on account of, injuries to or death of any person (including but not limited to workers and the public), or damage to property, resulting from or arising out of the successful bidder’s or its personnel, employees, agents, or subcontractors’ willful misconduct or negligent act or omission while engaged in the performance of services described in this bid document, except those matters arising from the participating BACC agency’s sole negligence or willful misconduct. The parties intend that this provision shall be broadly construed.

This indemnification includes, without limitation, the payment of all penalties, fines, forfeitures, judgments, awards, decrees, attorney’s fees, and related costs or expenses, and the reimbursement of any BACC agency, its officials, officers, employees, agents, and volunteers for all legal expenses and costs incurred by each of them.

The successful bidder’s responsibility for such defense and indemnity obligations shall survive the termination or completion of the contract for the full period of time allowed by law. The defense and indemnity obligations of the contract are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained in the contract.

If the successful bidder should subcontract all or any portion of the work to be performed under the contract, the successful bidder shall require each subcontractor to indemnify, hold harmless and defend each participating BACC agency and each of its officials, officers, employees, agents and volunteers in accordance with the terms of the preceding paragraphs.

4.2 Bid Protests
Any bid protest must be submitted electronically via email to the BACC Coordinator before 3:30 p.m. on the fifth (5th) business day following bid opening (jdyment@bacwa.org).

a. The protest document must be provided as one PDF and must contain a complete statement of the basis for the protest and all supporting documentation and evidence.

b. The party filing the protest must have actually submitted a bid for the chemical. A subcontractor of a party submitting a bid for the chemical may not submit a bid protest. A party may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest.
c. The protest must refer to the specific portion of the bid document which forms the basis for the protest.
d. The protest must include the name, address and telephone number of the person representing the protesting party.
e. The party filing the protest must concurrently transmit a copy of the protest document and any attached documentation to all other parties with a direct financial interest which may be adversely affected by the outcome of the protest. Such parties shall include all other bidders who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
f. BACC will give the bidder that is the subject of the protest five (5) business days after the receipt of the protest to submit a written response. The responding bidder shall submit the response to the protesting bidder concurrent with delivery to BACC.
g. The procedure and time limits set forth in this paragraph are mandatory and are the bidder's sole and exclusive remedy in the event of bid protest. All protests and responses received after the time set forth herein will be rejected. The bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest.
h. BACC will not be responsible for any delays or transmission errors. The protesting bidder accepts all risk of late delivery of electronic protests. If is the protesting bidder's responsibility to ensure that a submittal protest is received by the bid coordinator listed in this solicitation by the due date and time. Protesting bidders should contact the bid coordinator to make sure that their electronic submittal has gone through.
i. If BACC determines that a protest is frivolous, the protesting bidder may be determined to be non-responsible and that bidder may be determined to be ineligible for future contract awards.

4.3 Equal Opportunity
The successful bidder must agree not to refuse the hire, discharge, promote, or to otherwise discriminate in the matters of compensation against any person otherwise qualified solely because of race, creed, sex, national origin, ancestry, or physical handicap. It must be a condition that any company firm or corporation supplying goods or services, must be in compliance with the Americans with Disabilities (ADA) Act of 1990. A certificate stating compliance with the ADA may be required, upon request, by any BACC agency.

4.4 Modification of Contract
This bid solicitation document including the bid contract documents, in conjunction with each BACC agency's purchase order, purchase agreement and / or contract, will constitute the entire contract between each BACC agency and the successful bidder. The contract may not be modified, altered, or amended except by the mutual written agreement of the respective BACC agency and the successful bidder.
4.5 Common Language
Unless otherwise specified in this document, all words must be given their plain, common and ordinary meaning unless the context in which they are used clearly requires a different meaning. Words in the singular number include the plural, and in the plural include the singular. Additionally, words in the masculine gender include the feminine and the neuter, and when the sense so indicates, words of the neuter gender may refer to any gender.

4.6 Proprietary Information
All information included in any bid proposal that is of a propriety nature must be clearly marked as such. Each BACC agency must be held harmless from any claims arising from the release of proprietary information not clearly designated as such by the Bidder.

4.7 Patent Guarantee
The bidder must, with respect to any bidder's standard products, indemnify, defend and hold harmless each participating BACC agency, its employees and agents, from any and all costs and damages because of claims or litigation on account of infringement or alleged infringement of any letters patent or patent rights by reason of the sale or normal use of such products, provided that the bidder is promptly notified of all such actual or potential infringement suits, and is given an opportunity to participate in the defense of the participating BACC agencies.

4.8 Quality Control
The bidder's chemical may be inspected and/or sampled before, during, or after any delivery and tested to confirm compliance with all of the specifications. Persistent clogging, deliveries containing significant amounts of debris, and/or chemical not meeting the technical specifications will be considered to be deficiencies. If deficiencies are detected, the chemical will be rejected and the bidder will be required to remove and replace any and all of the chemical and clean the associated tanks and piping that are contaminated by a delivery that is determined to be deficient, at no cost to the participating BACC agency. If the bidder fails to remove and replace the deficient chemical in a timely manner after being notified of the problem by the participating agency, the participating agency may remove and dispose of the contaminated chemical and clean the chemical storage tank or tanks and the associated piping all at the bidder's expense. Payment for the delivered chemical will not be made until the defects are corrected and the chemical is properly replaced and accepted. Repeat failures to comply with the specifications must constitute grounds for termination of the contract.

4.9 Term of Contract
The term of the contract between the respective BACC agency and the successful bidder will be twelve (12) months commencing July 1, 2024, and expiring June 30, 2025, with an option to extend the contract on a year-to-year basis, not to exceed three (3) yearly renewals if conditions and service are satisfactory to both the respective BACC agency and the successful bidder. The price for any succeeding periods of service shall be determined by negotiation between the respective BACC agency and the successful bidder.
4.10 Good Faith Bidding and Contracting
The participating BACC agencies listed on this bid solicitation are bidding in good faith and have agreed not to extend an existing bid in lieu of contracting with the lowest responsive bidder. However, nothing in this bid solicitation shall prevent a BACC agency from rejecting all bids and separately procuring the services they require, if deemed in the best interest of their respective agency.

4.11 Termination of Contract
Any BACC agency may terminate their contract with the successful bidder for any reason by providing the successful bidder written notice of termination, and specifying the effective date thereof, at least thirty (30) days before the effective date. Termination of the contract by one BACC agency does not affect the contractual relationship between the successful bidder and any other BACC agency.

4.12 Termination for Cause
In the event of a breach of any term or provision of the contract by the successful bidder, a BACC agency may terminate the contract with respect to supply of chemicals for that agency by providing the successful bidder with written notice of such termination, and specifying the effective date thereof, at least ten (10) days before the effective date. Termination of the contract by one BACC agency does not affect the contractual relationship between the successful bidder and any other BACC agency.

4.13 Effect of Termination
Any termination by a BACC agency, with or without cause, must not affect the validity of the contract between the successful bidder and any other BACC agency, nor must such action affect any rights, remedies, or obligations of the successful bidder or any other BACC agency.

4.14 Assignment
The successful bidder must under no circumstances assign the contract without the prior written consent of each participating BACC agency. Any assignment, or attempt at assignment, made without such consent of each participating BACC agency may be considered a breach of contract.

4.15 Competitiveness and Integrity
The participating BACC agencies have assigned control of the acquisition process to the BACC coordinating agency identified in the Notice Inviting Sealed Bids of this document, to prevent biased evaluations and to preserve the competitiveness and integrity of such acquisition efforts. Bidders are to direct all communications regarding this bid to the designated BACC Coordinator, unless otherwise specifically noted, or unless approved in writing by the BACC Coordinator. Attempts by bidders to circumvent this requirement will be viewed negatively and may result in rejection of the offending bidder's offer. The BACC Coordinator may refer communications to other participating BACC agencies for clarification.

-END OF SECTION-
SECTION II

BAY AREA CHEMICAL CONSORTIUM
PRODUCT TECHNICAL SPECIFICATIONS
FOR BID NO. 12-2024
SODIUM HYDROXIDE
PRODUCT TECHNICAL SPECIFICATIONS
SODIUM HYDROXIDE, 20% Solution

1. Typical Analysis:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, NaOH</td>
<td>Wt %</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>Sodium Oxide, Na₂O</td>
<td>Wt %</td>
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<tr>
<td>Sodium Chloride, NaCl</td>
<td>PPM</td>
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<td>100</td>
</tr>
<tr>
<td>Sodium Carbonate, Na₂CO₃</td>
<td>Wt %</td>
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<td>.15</td>
</tr>
<tr>
<td>Sodium Chlorate, NaClO₃</td>
<td>PPM</td>
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<td>Sodium Sulfate, Na₂SO₄</td>
<td>PPM</td>
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</tr>
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<td>PPM</td>
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<td>0.5 *</td>
</tr>
<tr>
<td>Iron, Fe</td>
<td>PPM</td>
<td>0</td>
<td>5 *</td>
</tr>
<tr>
<td>Mercury, Hg</td>
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</tr>
<tr>
<td>Specific Gravity</td>
<td></td>
<td>1.2124</td>
<td>1.2344</td>
</tr>
</tbody>
</table>

- Sodium hydroxide for wastewater treatment applications is allowed to have up to 9 mg/L iron and up to 3 mg/L nickel.

2. Product Specifications:

a. The Sodium Hydroxide (NaOH) shall be in liquid form and shall conform to the current version of the American Water Works Association’s Standard for Caustic Soda B501 and to the Water Chemicals Codex, 1982; except as modified or supplemented herein.

b. For all potable water treatment (drinking water) applications the liquid Sodium Hydroxide supplied shall be tested and certified as meeting the specifications of the American National Standards Institute/National Sanitation Foundation Standard 60 (ANSI/NSF Standard 60) Drinking Water Treatment Chemicals – Health Effects. The NSF certification for the Sodium Hydroxide (NaOH) bid must be current on the date of the bid submittal.

c. It is the responsibility of the Bidder to inform the participating BACC Agency, within 24 hours from the time of verbal or written notification, that NSF certification has been revoked or lapsed. For all potable water treatment (drinking water) applications, the loss of NSF certification shall constitute sufficient grounds for immediate termination of the contract.

d. Bill of lading must clearly identify product delivered to be NSF 60 certified by stamp or type written statement – no handwritten notations will be accepted. Failure to provide clear identification of NSF product will result in rejection of the load at no cost to the participating BACC Agency.

e. Billing weight is defined as delivery weight x percentage N₂20 (from lab report)/76.

3. Quality:

a. The liquid Sodium Hydroxide (NaOH) to be delivered in conformity with this bid shall be 20% liquid solution, as specified herein. Caustic defined as “20% solution” must fall within the specified range of 19%-21% active ingredient to meet the requirements of this specification.

b. The liquid Sodium Hydroxide (NaOH) shall contain no more than 5 mg/L iron and no more than 2 mg/L mercury and no more than 0.5 mg/L nickel. No exceptions to these limitations will be allowed for any sodium hydroxide provided for potable water treatment applications. However, for sodium hydroxide used for wastewater treatment applications, up to 9 mg/L for iron (Fe) and up to 3 mg/L for nickel (Ni) will be allowed as noted above. For wastewater treatment
applications, concentrations of iron (Fe) greater than 9 ppm maximum and nickel (Ni) greater than 3 ppm maximum, may cause problems for the customer and therefore may be cause to terminate the contract if any excursions of these concentrations limits for iron or nickel cannot be reduced by the successful Bidder in subsequent deliveries to the respective customer.

c. The liquid Sodium Hydroxide (NaOH) shall be free from contaminating substances which could interfere with the normal operation of the customer’s facilities by causing clogging or blockage of feed lines, valves, strainers, or measuring devices.

4. **Certificate of Analysis:**
   a. A certificate of analysis prepared by a reputable outside laboratory or bidder’s in-house laboratory if ISO certified shall be submitted for each liquid Sodium Hydroxide (NaOH) delivery. The certificate of analysis shall be based on a representative sample of the specific batch or lot of chemical currently being used to make deliveries. The certificate of analysis shall contain the following:
      - Date of manufacture
      - Date of delivery
      - Shipper ID
      - Sodium Hydroxide: NaOH, Wt %
      - Sodium Oxide: Na₂O, Wt %
      - Sodium Sulfate: Na₂SO₄, PPM
      - Sodium Chloride: NaCl, PPM
      - Sodium Carbonate: Na₂CO₃, Wt %
      - Sodium Chlorate: NaClO₃, PPM
      - Iron: Fe, PPM
      - Mercury: Hg, PPM
      - Nickel: Ni, PPM
      - Density @ 60⁰F: lbs/gal
      - Specific Gravity

   No deliveries will be accepted unless accompanied by the said certificate of analysis for the specific batch or lot of chemical delivered and the quality specifications as listed above.

b. Charges for certificate of analysis shall be included in the bid price.

c. Failure to supply the required certificate of analysis shall be sufficient cause to reject the load. A certificate of analysis that does not meet AWWA Standard B501 shall be cause to reject the delivery.

d. One 200 mL sample of the delivered product shall be provided by the Bidder if requested by the customer either when the order is placed or at the time of delivery. In order to ensure these samples are representative of the chemical being delivered, the samples shall be drawn from the delivery truck at the time of delivery. Samples may be collected from any delivery, and the frequency upon which samples are collected will be entirely at the discretion of the customer. Samples will be collected at the unloading station, where containment and safety showers are provided. The customer will decide at what point during any delivery that they wish to collect a sample.
PRODUCT TECHNICAL SPECIFICATIONS
SODIUM HYDROXIDE, 25% Solution

1. Typical Analysis:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, NaOH</td>
<td>Wt %</td>
<td>23</td>
<td>27</td>
</tr>
<tr>
<td>Sodium Oxide, Na₂O</td>
<td>Wt %</td>
<td>15.5</td>
<td>20.2</td>
</tr>
<tr>
<td>Sodium Chloride, NaCl</td>
<td>PPM</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sodium Carbonate, Na₂CO₃</td>
<td>Wt %</td>
<td>0</td>
<td>0.15</td>
</tr>
<tr>
<td>Sodium Chlorate, NaClO₃</td>
<td>PPM</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>Sodium Sulfate, Na₂SO₄</td>
<td>PPM</td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td>Nickel, Ni</td>
<td>PPM</td>
<td>0</td>
<td>0.5 *</td>
</tr>
<tr>
<td>Iron, Fe</td>
<td>PPM</td>
<td>0</td>
<td>5 *</td>
</tr>
<tr>
<td>Mercury, Hg</td>
<td>PPM</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td></td>
<td>1.20</td>
<td>1.35</td>
</tr>
</tbody>
</table>

- Sodium hydroxide for wastewater treatment applications is allowed to have up to 9 mg/L iron and up to 3 mg/L nickel.

2. Product Specifications:
   a. The Sodium Hydroxide (NaOH) shall be in liquid form and shall conform to the current version of the American Water Works Association’s Standard for Caustic Soda B501 and to the Water Chemicals Codex, 1982; except as modified or supplemented herein.
   b. For all potable water treatment (drinking water) applications the liquid Sodium Hydroxide supplied shall be tested and certified as meeting the specifications of the American National Standards Institute/National Sanitation Foundation Standard 60 (ANSI/NSF Standard 60) Drinking Water Treatment Chemicals – Health Effects. The NSF certification for the Sodium Hydroxide (NaOH) bid must be current on the date of the bid submittal.
   c. It is the responsibility of the Bidder to inform the participating BACC Agency, within 24 hours from the time of verbal or written notification, that NSF certification has been revoked or lapsed. For all potable water treatment (drinking water) applications, the loss of NSF certification shall constitute sufficient grounds for immediate termination of the contract.
   d. Bill of lading must clearly identify product delivered to be NSF 60 certified by stamp or type written statement – no handwritten notations will be accepted. Failure to provide clear identification of NSF product will result in rejection of the load at no cost to the participating BACC Agency.
   e. Billing weight is defined as delivery weight x percentage N₂₂₀ (from lab report)/76.

3. Quality:
   a. The liquid Sodium Hydroxide (NaOH) to be delivered in conformity with this bid shall be 25% liquid solution, as specified herein. Caustic defined as “25% solution” must fall within the specified range of 23%-27% active ingredient to meet the requirements of this specification.
   b. The liquid Sodium Hydroxide (NaOH) shall contain no more than 5 mg/L iron and no more than 2 mg/L mercury and no more than 0.5 mg/L nickel. No exceptions to these limitations will be allowed for any sodium hydroxide provided for potable water treatment applications. However, for sodium hydroxide used for wastewater treatment applications, up to 9 mg/L for iron (Fe) and up to 3 mg/L for
nickel (Ni) will be allowed as noted above. For wastewater treatment applications, concentrations of iron (Fe) greater than 9 ppm maximum and nickel (Ni) greater than 3 ppm maximum, may cause problems for the customer and therefore may be cause to terminate the contract if any excursions of these concentrations limits for iron or nickel cannot be reduced by the successful Bidder in subsequent deliveries to the respective customer.

c. The liquid Sodium Hydroxide (NaOH) shall be free from contaminating substances which could interfere with the normal operation of the customer’s facilities by causing clogging or blockage of feed lines, valves, strainers, or measuring devices.

4. **Certificate of Analysis:**
   a. A certificate of analysis prepared by a reputable outside laboratory or bidder’s in-house laboratory if ISO certified shall be submitted for each liquid Sodium Hydroxide (NaOH) delivery. The certificate of analysis shall be based on a representative sample of the specific batch or lot of chemical currently being used to make deliveries. The certificate of analysis shall contain the following:

   - Date of manufacture
   - Date of delivery
   - Shipper ID
   - Sodium Hydroxide (NaOH) Wt %
   - Sodium Oxide (Na₂O) Wt %
   - Sodium Sulfate (Na₂SO₄) PPM
   - Sodium Chloride (NaCl) PPM
   - Sodium Carbonate (Na₂CO₃) Wt %
   - Sodium Chlorate (NaClO₃) PPM
   - Iron (Fe) PPM
   - Mercury (Hg) PPM
   - Nickel (Ni) PPM
   - Density @ 60⁰ lbs/gal
   - Specific Gravity

No deliveries will be accepted unless accompanied by the said certificate of analysis for the specific batch or lot of chemical delivered and the quality specifications as listed above.

b. Charges for certificate of analysis shall be included in the bid price.

c. Failure to supply the required certificate of analysis shall be sufficient cause to reject the load. A certificate of analysis that does not meet AWWA Standard B501 shall be cause to reject the delivery.

d. One 200 mL sample of the delivered product shall be provided by the Bidder if requested by the customer either when the order is placed or at the time of delivery. In order to ensure these samples are representative of the chemical being delivered, the samples shall be drawn from the delivery truck at the time of delivery. Samples may be collected from any delivery, and the frequency upon which samples are collected will be entirely at the discretion of the customer. Samples will be collected at the unloading station, where containment and safety showers are provided. The customer will decide at what point during any delivery that they wish to collect a sample.
PRODUCT TECHNICAL SPECIFICATIONS
SODIUM HYDROXIDE, 30% Solution

1. **Typical Analysis:**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, NaOH</td>
<td>Wt %</td>
<td>29</td>
<td>32</td>
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<tr>
<td>Sodium Oxide, Na₂O</td>
<td>Wt %</td>
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<tr>
<td>Sodium Chloride, NaCl</td>
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<tr>
<td>Sodium Carbonate, Na₂CO₃</td>
<td>Wt %</td>
<td>0</td>
<td>0.15</td>
</tr>
<tr>
<td>Sodium Chlorate, NaClO₃</td>
<td>PPM</td>
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<td>25</td>
</tr>
<tr>
<td>Sodium Sulfate, Na₂SO₄</td>
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<tr>
<td>Nickel, Ni</td>
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<tr>
<td>Iron, Fe</td>
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<td>5 *</td>
</tr>
<tr>
<td>Mercury, Hg</td>
<td>PPM</td>
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<td>2</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td></td>
<td>1.25</td>
<td>1.40</td>
</tr>
</tbody>
</table>

- Sodium hydroxide for wastewater treatment applications is allowed to have up to 9 mg/L iron and up to 3 mg/L nickel.

2. **Product Specifications:**

a. The Sodium Hydroxide (NaOH) shall be in liquid form and shall conform to the current version of the American Water Works Association’s Standard for Caustic Soda BS01 and to the Water Chemicals Codex, 1982; except as modified or supplemented herein.

b. For all potable water treatment (drinking water) applications the liquid Sodium Hydroxide supplied shall be tested and certified as meeting the specifications of the American National Standards Institute/National Sanitation Foundation Standard 60 (ANSI/NSF Standard 60) Drinking Water Treatment Chemicals – Health Effects. The NSF certification for the Sodium Hydroxide (NaOH) bid must be current on the date of the bid submittal.

c. It is the responsibility of the Bidder to inform the participating BACC Agency, within 24 hours from the time of verbal or written notification, that NSF certification has been revoked or lapsed. For all potable water treatment (drinking water) applications, the loss of NSF certification shall constitute sufficient grounds for immediate termination of the contract.

d. Bill of lading must clearly identify product delivered to be NSF 60 certified by stamp or type written statement – no handwritten notations will be accepted. Failure to provide clear identification of NSF product will result in rejection of the load at no cost to the participating BACC Agency.

e. Billing weight is defined as delivery weight x percentage N₂0 (from lab report)/76.

3. **Quality:**

a. The liquid Sodium Hydroxide (NaOH) to be delivered in conformity with this bid shall be 30% liquid solution, as specified herein. Caustic defined as "30% solution" must fall within the specified range of 29%-32% active ingredient to meet the requirements of this specification.

b. The liquid Sodium Hydroxide (NaOH) shall contain no more than 5 mg/L iron and no more than 2 mg/L mercury and no more than 0.5 mg/L nickel. No exceptions to these limitations will be allowed for any sodium hydroxide provided for potable water treatment applications. However, for
sodium hydroxide used for wastewater treatment applications, up to 9 mg/L for iron (Fe) and up to 3 mg/L for nickel (Ni) will be allowed as noted above. For wastewater treatment applications, concentrations of iron (Fe) greater than 9 ppm maximum and nickel (Ni) greater than 3 ppm maximum, may cause problems for the customer and therefore may be cause to terminate the contract if any excursions of these concentrations limits for iron or nickel cannot be reduced by the successful Bidder in subsequent deliveries to the respective customer. The liquid Sodium Hydroxide (NaOH) shall be free from contaminating substances which could interfere with the normal operation of the customer’s facilities by causing clogging or blockage of feed lines, valves, strainers, or measuring devices.

4. Certificate of Analysis:
   a. A certificate of analysis prepared by a reputable outside laboratory or bidder’s in-house laboratory if ISO certified shall be submitted for each liquid Sodium Hydroxide (NaOH) delivery. The certificate of analysis shall be based on a representative sample of the specific batch or lot of chemical currently being used to make deliveries. The certificate of analysis shall contain the following:
      • Date of manufacture
      • Date of delivery
      • Shipper ID
      • Sodium Hydroxide NaOH Wt %
      • Sodium Oxide Na₂O Wt %
      • Sodium Sulfate Na₂SO₄ PPM
      • Sodium Chloride NaCl PPM
      • Sodium Carbonate Na₂CO₃ Wt %
      • Sodium Chlorate NaClO₃ PPM
      • Iron Fe PPM
      • Mercury Hg PPM
      • Nickel Ni PPM
      • Density @ 60° lbs/gal
      • Specific Gravity

No deliveries will be accepted unless accompanied by the said certificate of analysis for the specific batch or lot of chemical delivered and the quality specifications as listed above.

b. Charges for certificate of analysis shall be included in the bid price.

c. Failure to supply the required certificate of analysis shall be sufficient cause to reject the load. A certificate of analysis that does not meet AWWA Standard BS01 shall be cause to reject the delivery.

d. One 200 mL sample of the delivered product shall be provided by the Bidder if requested by the customer either when the order is placed or at the time of delivery. In order to ensure these samples are representative of the chemical being delivered, the samples shall be drawn from the delivery truck at the time of delivery. Samples may be collected from any delivery, and the frequency upon which samples are collected will be entirely at the discretion of the customer. Samples will be
collected at the unloading station, where containment and safety showers are provided. The customer will decide at what point during any delivery that they wish to collect a sample.
PRODUCT TECHNICAL SPECIFICATIONS
SODIUM HYDROXIDE, 50% Solution

1. **Typical Analysis:**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, NaOH</td>
<td>Wt %</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td>Sodium Oxide, Na₂O</td>
<td>Wt %</td>
<td>37.7</td>
<td>40.4</td>
</tr>
<tr>
<td>Sodium Chloride, NaCl</td>
<td>PPM</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sodium Carbonate, Na₂CO₃</td>
<td>Wt %</td>
<td>0</td>
<td>0.30</td>
</tr>
<tr>
<td>Sodium Chlorate, NaClO₃</td>
<td>PPM</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>Sodium Sulfate, Na₂SO₄</td>
<td>PPM</td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td>Nickel, Ni</td>
<td>PPM</td>
<td>0</td>
<td>0.5 *</td>
</tr>
<tr>
<td>Iron, Fe</td>
<td>PPM</td>
<td>0</td>
<td>5 *</td>
</tr>
<tr>
<td>Mercury, Hg</td>
<td>PPM</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Specific Gravity at 20 deg. C</td>
<td></td>
<td>1.45</td>
<td>1.60</td>
</tr>
</tbody>
</table>

- Sodium hydroxide for wastewater treatment applications is allowed to have up to 9 mg/L iron and up to 3 mg/L nickel.

2. **Product Specifications:**
   a. The Sodium Hydroxide (NaOH) shall be in liquid form and shall conform to the current version of the American Water Works Association’s Standard for Caustic Soda BS01 and to the Water Chemicals Codex, 1982; except as modified or supplemented herein.
   b. For all potable water treatment (drinking water) applications the liquid Sodium Hydroxide supplied shall be tested and certified as meeting the specifications of the American National Standards Institute/National Sanitation Foundation Standard 60 (ANSI/NSF Standard 60) Drinking Water Treatment Chemicals – Health Effects. The NSF certification for the Sodium Hydroxide (NaOH) bid must be current on the date of the bid submittal.
   c. It is the responsibility of the Bidder to inform the participating BACC Agency, within 24 hours from the time of verbal or written notification, that NSF certification has been revoked or lapsed. For all potable water treatment (drinking water) applications, the loss of NSF certification shall constitute sufficient grounds for immediate termination of the contract.
   d. Bill of lading must clearly identify product delivered to be NSF 60 certified by stamp or type written statement – no handwritten notations will be accepted. Failure to provide clear identification of NSF product will result in rejection of the load at no cost to the participating BACC Agency.
   e. Billing weight is defined as delivery weight x percentage Na₂O (from lab report)/76.

3. **Quality:**
   a. The liquid Sodium Hydroxide (NaOH) to be delivered in conformity with this bid shall be 50% liquid solution, as specified herein. Caustic defined as “50% solution” must fall within the specified range of 48%-52% active ingredient to meet the requirements of this specification.
   b. The liquid Sodium Hydroxide (NaOH) shall contain no more than 5 mg/L iron and no more than 2 mg/L mercury and no more than 0.5 mg/L nickel. No exceptions to these limitations will be allowed for any sodium hydroxide provided for potable water treatment applications. However, for
sodium hydroxide used for wastewater treatment applications, up to 9 mg/L for iron (Fe) and up to 3 mg/L for nickel (Ni) will be allowed as noted above. For wastewater treatment applications, concentrations of iron (Fe) greater than 9 ppm maximum and nickel (Ni) greater than 3 ppm maximum, may cause problems for the customer and therefore may be cause to terminate the contract if any excursions of these concentrations limits for iron or nickel cannot be reduced by the successful Bidder in subsequent deliveries to the respective customer.

c. The liquid Sodium Hydroxide (NaOH) shall be free from contaminating substances which could interfere with the normal operation of the customer’s facilities by causing clogging or blockage of feed lines, valves, strainers, or measuring devices.

4. Certificate of Analysis:

a. A certificate of analysis prepared by a reputable outside laboratory or bidder’s in-house laboratory if ISO certified shall be submitted for each liquid Sodium Hydroxide (NaOH) delivery. The certificate of analysis shall be based on a representative sample of the specific batch or lot of chemical currently being used to make deliveries. The certificate of analysis shall contain the following:

- Date of manufacture
- Date of delivery
- Shipper ID
- Sodium Hydroxide NaOH Wt %
- As Sodium Oxide Na₂O Wt %
- Sodium Sulfate Na₂SO₄ PPM
- Sodium Chloride NaCl PPM
- Sodium Carbonate Na₂CO₃ Wt %
- Sodium Chlorate NaClO₃ PPM
- Iron Fe PPM
- Mercury Hg PPM
- Nickel Ni PPM
- Density @ 60ºF lbs/gal
- Specific Gravity at 20 deg. C

No deliveries will be accepted unless accompanied by the said certificate of analysis for the specific batch or lot of chemical delivered and the quality specifications as listed above.

b. Charges for certificate of analysis shall be included in the bid price.

c. Failure to supply the required certificate of analysis shall be sufficient cause to reject the load. A certificate of analysis that does not meet AWWA Standard B501 shall be cause to reject the delivery.

d. One 200 mL sample of the delivered product shall be provided by the Bidder if requested by the customer either when the order is placed or at the time of delivery. In order to ensure these samples are representative of the chemical being delivered, the samples shall be drawn from the delivery truck at the time of delivery. Samples may be collected from any delivery, and the frequency upon which samples are collected will be entirely at the discretion of the customer. Samples will be collected at the unloading station, where containment and safety showers are provided. The customer will decide at what point during any delivery that they wish to collect a sample.
SECTION III – 1

BAY AREA CHEMICAL CONSORTIUM
ESTIMATED ANNUAL QUANTITIES
FOR BID NO. 12-2024
SODIUM HYDROXIDE
<table>
<thead>
<tr>
<th>Sodium Hydroxide 20% (Caustic)</th>
<th>Unit of Measure</th>
<th>Estimated Annual Qty for Treatment Applications:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dry ton</td>
<td>Water</td>
<td>Wastewater</td>
</tr>
<tr>
<td><strong>Marin Sonoma</strong></td>
<td></td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>County of Sonoma</td>
<td>dry ton</td>
<td>0</td>
<td>23</td>
</tr>
<tr>
<td><strong>Sacramento</strong></td>
<td></td>
<td>0</td>
<td>23</td>
</tr>
<tr>
<td>City of Sacramento</td>
<td>dry ton</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td><strong>Sodium Hydroxide 25% (Caustic)</strong></td>
<td>dry ton</td>
<td>749</td>
<td>1,161</td>
</tr>
<tr>
<td><strong>Central Valley</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Stockton</td>
<td>dry ton</td>
<td>110</td>
<td>325</td>
</tr>
<tr>
<td>City of Turlock</td>
<td>dry ton</td>
<td>53</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>163</td>
<td>325</td>
</tr>
<tr>
<td><strong>Marin Sonoma</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Napa Sanitation District</td>
<td>dry ton</td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td><strong>Peninsula</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of San Mateo</td>
<td>dry ton</td>
<td>0</td>
<td>450</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>450</td>
</tr>
<tr>
<td><strong>Sacramento</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Roseville</td>
<td>dry ton</td>
<td>0</td>
<td>300</td>
</tr>
<tr>
<td>City of Sacramento</td>
<td>dry ton</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td>El Dorado Irrigation District</td>
<td>dry ton</td>
<td>40</td>
<td>0</td>
</tr>
<tr>
<td>Nevada Irrigation District</td>
<td>dry ton</td>
<td>144</td>
<td>0</td>
</tr>
<tr>
<td>Sacramento County Water Agency</td>
<td>dry ton</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>326</td>
<td>300</td>
</tr>
<tr>
<td><strong>South Bay</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Sunnyvale</td>
<td>dry ton</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td><strong>Tri Valley</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 7 Water Agency</td>
<td>dry ton</td>
<td>260</td>
<td>0</td>
</tr>
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<td></td>
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<td>260</td>
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## ESTIMATED ANNUAL QUANTITIES FOR FISCAL YEAR 2024/2025

**BID NO. 12-2024**

<table>
<thead>
<tr>
<th>Sodium Hydroxide 30% (Caustic)</th>
<th>Unit of Measure</th>
<th>Estimated Annual Qty for Treatment Applications:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dry ton</td>
<td>Water</td>
</tr>
<tr>
<td><strong>Marin Sonoma</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County of Sonoma</td>
<td>dry ton</td>
<td>13</td>
</tr>
<tr>
<td><strong>North Bay</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contra Costa Water District</td>
<td>dry ton</td>
<td>2,658</td>
</tr>
<tr>
<td>West County Wastewater District</td>
<td>dry ton</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>2,658</strong></td>
</tr>
<tr>
<td><strong>Sacramento</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Dorado Irrigation District</td>
<td>dry ton</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>South Bay</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Santa Clara</td>
<td>dry ton</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>3</strong></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Sodium Hydroxide 50% (Caustic)</th>
<th>Unit of Measure</th>
<th>Estimated Annual Qty for Treatment Applications:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dry ton</td>
<td>Water</td>
</tr>
<tr>
<td><strong>Central Valley</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Stockton</td>
<td>dry ton</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>East Bay</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alameda County Water District</td>
<td>dry ton</td>
<td>852</td>
</tr>
<tr>
<td>City of Hayward</td>
<td>dry ton</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>852</strong></td>
</tr>
<tr>
<td><strong>Marin Sonoma</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County of Sonoma</td>
<td>dry ton</td>
<td>2,300</td>
</tr>
<tr>
<td>Marin Municipal Water District</td>
<td>dry ton</td>
<td>626</td>
</tr>
<tr>
<td>North Marin Water District</td>
<td>dry ton</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>3,002</strong></td>
</tr>
<tr>
<td><strong>North Bay</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Antioch</td>
<td>dry ton</td>
<td>580</td>
</tr>
<tr>
<td>City of Martinez</td>
<td>dry ton</td>
<td>150</td>
</tr>
<tr>
<td>City of Pittsburg</td>
<td>dry ton</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>970</strong></td>
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</table>
## ESTIMATED ANNUAL QUANTITIES FOR FISCAL YEAR 2024/2025
### BID NO. 12-2024

<table>
<thead>
<tr>
<th></th>
<th>Unit of Measure</th>
<th>Estimated Annual Qty for Treatment Applications:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Water</td>
</tr>
<tr>
<td><strong>Sacramento</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carmichael Water District</td>
<td>dry ton</td>
<td>100</td>
</tr>
<tr>
<td>City of Roseville</td>
<td>dry ton</td>
<td>191</td>
</tr>
<tr>
<td>El Dorado Irrigation District</td>
<td>dry ton</td>
<td>143</td>
</tr>
<tr>
<td>LiSWA WWTRF</td>
<td>dry ton</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>434</td>
</tr>
<tr>
<td><strong>Tri Valley</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 7 Water Agency</td>
<td>dry ton</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td></td>
<td>800</td>
</tr>
</tbody>
</table>
SECTION III – 2

BAY AREA CHEMICAL CONSORTIUM
DELIVERY DETAILS
FOR BID NO. 12-2024
SODIUM HYDROXIDE
### BAY AREA CHEMICAL CONSORTIUM

**DELIVERY DETAILS**  
**BID NO. 12-2024**  
**SODIUM HYDROXIDE**

The frequency of deliveries and typical delivery size are estimates of anticipated usage for a 12-month period and are given for informational purposes only and are not used in any calculations to determine the lowest overall bid (Section I, Paragraph 2.16 Method of Award).

<table>
<thead>
<tr>
<th>Per Region, Agency and Delivery Facility Name and Location</th>
<th>Frequency of Deliveries</th>
<th>Typical Delivery Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CENTRAL VALLEY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Stockton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delta Water Supply Plant</td>
<td>1x per month</td>
<td>4000 gal</td>
</tr>
<tr>
<td>11373 N. Lower Sacramento Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lodi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stockton Regional Wastewater Control Facility (Tertiary Plant)</td>
<td>1-2x per month for 4-6 months in year, mostly in winter</td>
<td>4,000 gallons (combined for both 25% and 50%)</td>
</tr>
<tr>
<td>3307 W. Highway 4 (John Turk Road)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stockton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Turlock</td>
<td>weekly - bi weekly</td>
<td>405 gal</td>
</tr>
<tr>
<td>Well 38</td>
<td>2919 W Christoffersen Parkway</td>
<td></td>
</tr>
<tr>
<td>Turlock</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EAST BAY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alameda County Water District</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blending Facility</td>
<td>1x every 2 weeks</td>
<td>4,000 gallons</td>
</tr>
<tr>
<td>1111 Mowry Ave</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fremont</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newark Desalination Facility</td>
<td>1x per month</td>
<td>4,000 gallons</td>
</tr>
<tr>
<td>6833 Redecker Place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Treatment Plant No. 2</td>
<td>1-2x per week</td>
<td>4,000 gallons</td>
</tr>
<tr>
<td>42436 Mission Blvd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fremont</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Hayward</td>
<td>Once per year</td>
<td>5,000 gallons</td>
</tr>
<tr>
<td>Water Pollution Control Facility</td>
<td>3700 Enterprise Avenue</td>
<td></td>
</tr>
<tr>
<td>Hayward</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MARIN SONOMA NAPA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County of Sonoma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airport/Larkfield/Wikiup Wastewater Treatment Plant</td>
<td>Bi-monthly</td>
<td>800-1000 gallons</td>
</tr>
<tr>
<td>800 Aviation Blvd</td>
<td>Santa Rosa</td>
<td></td>
</tr>
<tr>
<td>River Road Corrosion Control Facility</td>
<td>Monthly</td>
<td>30,000 gallons</td>
</tr>
<tr>
<td>7945 River Road</td>
<td>Forestville</td>
<td></td>
</tr>
<tr>
<td>Sonoma Valley Wastewater Treatment Plant</td>
<td>Bi-months</td>
<td>8,000 gallons</td>
</tr>
<tr>
<td>22675 8th Street</td>
<td>Sonoma</td>
<td></td>
</tr>
<tr>
<td>Wohler Corrosion Control Facility</td>
<td>Monthly</td>
<td>30,000 gallons</td>
</tr>
<tr>
<td>9750 Wohler Rd</td>
<td>Forestville</td>
<td></td>
</tr>
<tr>
<td><strong>Marin Municipal Water District</strong></td>
<td>24x per year</td>
<td>not less than 3,500 gallons</td>
</tr>
<tr>
<td>MMWD Bon Tempe</td>
<td>Fairfax</td>
<td></td>
</tr>
<tr>
<td>Filter Plant Road</td>
<td>34x per year</td>
<td>not less than 4,000 gallons</td>
</tr>
<tr>
<td>MMWD San Geronimo</td>
<td>Woodacre</td>
<td></td>
</tr>
<tr>
<td>330 San Geronimo Valley Road</td>
<td>Napa</td>
<td>5,000 gallons</td>
</tr>
<tr>
<td>Napa Sanitation District</td>
<td>1515 Soscol Ferry Road</td>
<td></td>
</tr>
<tr>
<td>Napa Sanitation District</td>
<td>Once per month</td>
<td></td>
</tr>
</tbody>
</table>
## BAY AREA CHEMICAL CONSORTIUM
### DELIVERY DETAILS
#### BID NO. 12-2024
#### SODIUM HYDROXIDE

The frequency of deliveries and typical delivery size are estimates of anticipated usage for a 12-month period and are given for informational purposes only and are not used in any calculations to determine the lowest overall bid (Section I, Paragraph 2.16 Method of Award).

<table>
<thead>
<tr>
<th>Per Region, Agency and Delivery Facility Name and Location</th>
<th>Frequency of Deliveries</th>
<th>Typical Delivery Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>North Marin Water District</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Marin Water District</td>
<td>1x per month</td>
<td>4000 gallons</td>
</tr>
<tr>
<td>Stafford Lake Treatment Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3015 Novato Blvd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novato</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NORTH BAY**

| City of Antioch                                          |                         |                       |
| City of Antioch Water Treatment Plant                    | 1x weekly               | 5,000 gallons         |
| 401 Putnam Street                                        |                         |                       |
| Antioch                                                  |                         |                       |

**City of Martinez**

| City of Martinez Water Treatment Plant                   | 1x per month            | 4,500 gallons         |
| 3003 Pacheco Blvd.                                      |                         |                       |
| Martinez                                                 |                         |                       |

**City of Pittsburg**

| Pittsburg Water Treatment Plant                          | Bi-weekly               |                       |
| 300 Olympia Drive                                        |                         |                       |
| Pittsburg                                                |                         |                       |

**Contra Costa Water District**

| Bollman Water Treatment Plant                            | approx 65 loads per year between 7:00 am and 2:00 PM | 5,500 gallons         |
| 2015 Bates Ave                                           |                                                     |                       |
| Concord                                                  |                                                     |                       |
| Brentwood Water Treatment Plant                          | approx 40 loads per year                             | 5,500 gallons         |
| 3760 Neroly Road                                         |                                                     |                       |
| Oakley                                                   |                                                     |                       |
| Randall-Bold Water Treatment Plant                       | approx 180 loads per year                            | 5,500 gallons         |
| 3760 Neroly Road                                         |                                                     |                       |
| Oakley                                                   |                                                     |                       |

**West County Wastewater District**

| Water County Wastewater                                  | As needed               | IBC totes (275 gallons) |
| 2377 Garden Tract Road                                   |                         |                       |
| Richmond                                                |                         |                       |

**PENINSULA**

**City of San Mateo**

| City of San Mateo WQCP                                   | every 3-4 weeks          | Full load              |
| 2050 Detroit Drive                                       |                         |                       |
| San Mateo, CA                                            |                         |                       |

**SACRAMENTO**

**Carmichael Water District**

| Bajamont Water Treatment Plant                           | 7-8 per year             | Full load, approx 4,000 gallons |
| 3501 Bajamont Way                                        |                         |                       |
| Carmichael                                              |                         |                       |
## Per Region, Agency and Delivery Facility Name and Location

### City of Roseville

<table>
<thead>
<tr>
<th>Facility Name and Location</th>
<th>Frequency of Deliveries</th>
<th>Typical Delivery Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Creek Wastewater Treatment Plant</td>
<td>1 per week</td>
<td>Approx 5,000 gallons</td>
</tr>
<tr>
<td>Pleasant Grove Wastewater Treatment Plant</td>
<td>1 per week</td>
<td>Approx 5,000 gallons</td>
</tr>
<tr>
<td>Roseville Energy Park</td>
<td>Every 1-2 months</td>
<td>1,200 gallons</td>
</tr>
<tr>
<td>Roseville Water Treatment Plant</td>
<td>Monthly potential</td>
<td>5,000 gallons</td>
</tr>
</tbody>
</table>

### City of Sacramento

<table>
<thead>
<tr>
<th>Facility Name and Location</th>
<th>Frequency of Deliveries</th>
<th>Typical Delivery Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.A. Fairbairn Water Treatment Plant</td>
<td>Need is storm/maintenance dependent (weekly when required)</td>
<td>4,000 gallons</td>
</tr>
<tr>
<td>Sacramento River Water Treatment Plant</td>
<td>Need is storm/maintenance dependent (weekly when required)</td>
<td>4,000 gallons</td>
</tr>
</tbody>
</table>

### El Dorado Irrigation District

<table>
<thead>
<tr>
<th>Facility Name and Location</th>
<th>Frequency of Deliveries</th>
<th>Typical Delivery Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deer Creek Wastewater Treatment Plant</td>
<td>6-8x per year</td>
<td>5,000 gals (30%); 5,000 gals (50%)</td>
</tr>
<tr>
<td>EID Reservoir A Water</td>
<td>6-8X year</td>
<td>3,800 gallons (50% caustic)</td>
</tr>
<tr>
<td>El Dorado Hills Wastewater Treatment Plant</td>
<td>6-8x per year</td>
<td>5,000 gals (30%); 5,000 gals (50%)</td>
</tr>
<tr>
<td>El Dorado Hills Water Plant, or EID Reservoir 1 Water, or EID Reservoir A Water</td>
<td>2 deliveries per year to any of the 3 water locations</td>
<td>5,000 gals (25%)</td>
</tr>
</tbody>
</table>

### LiSWA WWTRF

<table>
<thead>
<tr>
<th>Facility Name and Location</th>
<th>Frequency of Deliveries</th>
<th>Typical Delivery Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMD1 Pump Station</td>
<td>2 per month</td>
<td>3,800 gallons</td>
</tr>
</tbody>
</table>

### Nevada Irrigation District

<table>
<thead>
<tr>
<th>Facility Name and Location</th>
<th>Frequency of Deliveries</th>
<th>Typical Delivery Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. George Water Treatment Plant</td>
<td>8 loads per year</td>
<td>4,800 gallons (12,000 #)</td>
</tr>
<tr>
<td>Lake of the Pines Water Treatment Plant</td>
<td>5 loads oer year</td>
<td>4,800 gallons (12,000#)</td>
</tr>
<tr>
<td>Lake Wildwood Water Treatment Plant</td>
<td>4 loads per year. Driver must contact plant for escort.</td>
<td>4,800 gallons (12,000 #)</td>
</tr>
<tr>
<td>Loma Rica Water Treatment Plant</td>
<td>4 loads per year. Driver must contact plant for escort.</td>
<td>4,800 gallons (12,000 #)</td>
</tr>
<tr>
<td>North Auburn Water Treatment Plant</td>
<td>6 loads per year</td>
<td>4,800 gallons (12,000 #)</td>
</tr>
</tbody>
</table>
BAY AREA CHEMICAL CONSORTIUM
DELIVERY DETAILS
BID NO. 12-2024
SODIUM HYDROXIDE

The frequency of deliveries and typical delivery size are estimates of anticipated usage for a 12-month period and are given for informational purposes only and are not used in any calculations to determine the lowest overall bid (Section I, Paragraph 2.16 Method of Award).

### Per Region, Agency and Delivery Facility Name and Location

<table>
<thead>
<tr>
<th>Location</th>
<th>Frequency of Deliveries</th>
<th>Typical Delivery Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sacramento County Water Agency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vineyard Surface Water Treatment Plant 10151 Florin Road Sacramento</td>
<td>Approx once a month</td>
<td>Full tanker delivery</td>
</tr>
<tr>
<td><strong>SOUTH BAY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>City of Santa Clara</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DVR Power Plant 850 Duane Ave Santa Clara, CA 95054</td>
<td>Every 3 months</td>
<td>350-450 gallons</td>
</tr>
<tr>
<td><strong>City of Sunnyvale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Sunnyvale Wastewater Treatment Plant 1444 Borregas Avenue Sunnyvale</td>
<td>3x per year</td>
<td>1,700 gallons</td>
</tr>
<tr>
<td><strong>TRI VALLEY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Zone 7 Water Agency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Del Valle Water Treatment Plant 901 East Vineyard Ave Livermore</td>
<td>3 - 5 per month (50%)</td>
<td>3,800 gallons</td>
</tr>
<tr>
<td>Mocho Groundwater Demineralization Plant 5215 Stoneridge Drive Pleasanton</td>
<td>1 load every two months (50%)</td>
<td>3,800 gallons</td>
</tr>
<tr>
<td>Patterson Pass Water Treatment Plant 8750 Patterson Pass Road Livermore</td>
<td>5 per month Oct-March (25%)</td>
<td>4,500 gallons</td>
</tr>
</tbody>
</table>
SECTION III – 3

BAY AREA CHEMICAL CONSORTIUM
PARTICIPATING MEMBER AGENCY CONTACT LIST
FOR BID NO. 12-2024
SODIUM HYDROXIDE
BAY AREA CHEMICAL CONSORTIUM
PARTICIPATING MEMBER AGENCY CONTACT LIST
BID NO. 12-2024
SODIUM HYDROXIDE

Central Valley

CITY OF STOCKTON
Municipal Utilities Department 2500 Navy Drive Stockton, CA 95206
Kathryn Garcia Program Manager III - Wastewater Kathryn.Garcia@stocktonca.gov 209-937-8232

CITY OF TURLOCK
156 S Broadway, #270 Turlock, CA 95380
David Huff dhuff@turlock.ca.us
Carlos Guerrero Utilities Manager cguerrero@turlock.ca.us
Nicole Mann nmann@turlock.ca.us
Raquel Brasil rbrasil@turlock.ca.us

East Bay

ALAMEDA COUNTY WATER DISTRICT
43885 South Grimmer Blvd Fremont, CA 94538
Mike Wickham Water Production Manager mike.wickham@acwd.com 510-552-1459
Cris Pena Engineering Supervisor Cris.Pena@acwd.com 510-668-6516
Renee Gonzalez Buyer renee.gonzalez@acwd.com 510-668-4294
Thomas Spankowski Environmental Compliance Engineer thomas.spankowski@acwd.com 510-668-6533

CITY OF HAYWARD
Water Pollution Control Facility 3700 Enterprise Avenue Hayward, CA 94545
Diane Vargas WPCF Secretary diane.vargas@hayward-ca.gov
David Donovan WPCF Manager david.donovan@hayward-ca.gov 510-293-5099
Alex Ameri Public Works Director alex.ameri@hayward-ca.gov
Rita Perez Purchasing and Accounts Payable - Acting Manager rita.perez@hayward-ca.gov 510-583-4802
Mark Orlandi Operations Supervisor mark.orlandi@hayward-ca.gov 510-293-5212

Marin Sonoma Napa

COUNTY OF SONOMA
2300 County Center Dr., Suite A208 Santa Rosa, CA 95403
Garrett Heinz Buyer Garrett.Heinz@sonoma-county.org 707 565-1787
Brenda Haas General Services - Purchasing Division brenda.haas@sonoma-county.org 707-565-1791
BAY AREA CHEMICAL CONSORTIUM
PARTICIPATING MEMBER AGENCY CONTACT LIST
BID NO. 12-2024
SODIUM HYDROXIDE

MARIN MUNICIPAL WATER DISTRICT
220 Nellen Avenue  Corte Madera, CA  94925
Jim Kenney  Superintendent of Operations, Water Treatment  jkenney@marinwater.org  415-945-1501
Lucy Croy  Water Quality Manager  lcroy@marinwater.org  415-945 1590
Danelle Graham  Senior Buyer  dgraham@marinwater.org  415-945-1402

NAPA SANITATION DISTRICT
1515 Soscol Ferry Road  Napa, CA  94558
Christopher Mosier  Operator III  cmosier@napasan.com  707- 312-1899
Cristopher Henriquez  Operator II  chenriqu@napasan.com  707-312-1595
Gabe Snook  Operations Supervisor  gsnook@napasan.com  707-312-1733
Timothy Healy  General Manager/District Engineer  thealy@napasan.com  707-258-6000

NORTH MARIN WATER DISTRICT
999 Rush Creek Place  Novato, CA  94945
Robert Clark  Operations/Maintenance Superintendent  rclark@nmwd.com  415-761-8931
Brad Stompe  Operations Supervisor  bstompe@nmwd.com

North Bay

CITY OF ANTIOCH
Water Treatment Plant  P. O. Box 5007  Antioch, CA  94531-5007
Benjamin Woodland  Water Treatment Plant Supervisor  BWoodland@antiochca.gov  (925) 779-7029
Marcus Woodland  Mwoodland@antiochca.gov
Chris Molina  cmolina@antiochca.gov

CITY OF MARTINEZ
525 Henrietta Street  Martinez, CA  94553
Hiren Patel  Water Operations Supervisor  hpatel@cityofmartinez.org  925-372-3588
George Pavlov  Water Superintendent  gpavlov@cityofmartinez.org  925-372-3587

CITY OF PITTSBURG
Water Treatment Plant  300 Olympia Drive  Pittsburg, CA  94565
Jason Moser  Water Treatment Plant Superintendent  jmoser@pittsburgca.gov  925-252-6997
BAY AREA CHEMICAL CONSORTIUM
PARTICIPATING MEMBER AGENCY CONTACT LIST
BID NO. 12-2024
SODIUM HYDROXIDE

CONTRA COSTA WATER DISTRICT
1331 Concord Ave Concord, CA 94520-4907
Kim Waddy  Buyer  kwaddy@ccwater.com  925-688-8012
Nicole Quesada  Administrative Analyst  nquesada@ccwater.com  925-625-6602
John Parsons  Water Operations Superintendent  jparsons@ccwater.com  925-625-6603
Brian Jackson  Purchasing Officer  b.jackson@ccwater.com  925-688-8011

WEST COUNTY WASTEWATER DISTRICT
2910 Hilltop Drive Richmond, CA 94806
Aaron Winer  Director of Water Quality & Resource Recovery  AWiner@wcwd.org
Joseph Majarucon  Operations Manager  jmajarucon@wcwd.org

Peninsula
CITY OF SAN MATEO
City of San Mateo WWTP 2050 Detroit Drive San Mateo, CA 94404
Xiongbing Liang  Laboratory Supervisor  xliang@cityofsanmateo.org  650-522-7380
Michael Sutter  msutter@cityofsanmateo.org
Rob Learmonth  Planet Manager  rlearnermonth@cityofsanmateo.org
Alonso Barahona  Management Analyst II  abarahona@cityofsanmateo.org  650-522-7334

Sacramento
CARMICHAEL WATER DISTRICT
7837 Fair Oaks Blvd. Carmichael, CA 95608
David Biagi  davidb@carmichaelwd.org  916-679-0457

CITY OF ROSEVILLE
311 Vernon Street Roseville, CA 95678
Becky Philipp  Buyer II  bphilipp@roseville.ca.us  916-746-1110
Shannon Wiest  swiest@roseville.ca.us  916-746-1112
BAY AREA CHEMICAL CONSORTIUM
PARTICIPATING MEMBER AGENCY CONTACT LIST
BID NO. 12-2024
SODIUM HYDROXIDE

CITY OF SACRAMENTO
Department of Utilities 5730 24th Street, Bldg 22 Sacramento, CA 95822
David Herrmann Division Manager, Water Division dherrmann@cityofsacramento.org 916-808-5652
Dalton Le Administrative Analyst DMLe@cityofsacramento.org 916-808-6008
Andrew Costan Program Specialist acostan@cityofsacramento.org 916-808-6339

EL DORADO IRRIGATION DISTRICT
2890 Mosquito Road Placerville, CA 95667
Ryan Deakyne Senior Buyer rdeakyne@eid.org 530-642-4405

LISWA WWTRF
P.O. Box 1050 1245 Fiddyment Road Lincoln, CA 95648
Gary Hengst Plant Manager/CPO gary.hengst@stantec.com 916-434-5062

NEVADA IRRIGATION DISTRICT
1036 W. Main Street Grass Valley, CA 95945
Coby McCoy Water Treatment Supervisor mccoyc@nidwater.com 530 913-9710
Delivery Dispatcher
Joan Tortorici Purchasing Supervisor tortorici@nidwater.com 530-273-6185
Shad Chittock Water Treatment Superintendent chittocks@nidwater.com 530-271-6899

SACRAMENTO COUNTY WATER AGENCY
Vineyard Surface Water Treatment Plant 10151 Florin Road Sacramento, CA 95829
Daniel Ruiz Accounting Technician RuizDa@saccounty.gov 916 874-1398
Shawn Barnes Water Treatment Operations Supervisor barness@saccounty.gov 916-508-0858
Tom Pasterski Water System Superintendent pasterskit@saccounty.gov 916-876-643C
Aaron Robertson aron@saccounty.gov 916-875-0746
Jeff Gross grossj@saccounty.gov
BAY AREA CHEMICAL CONSORTIUM
PARTICIPATING MEMBER AGENCY CONTACT LIST
BID NO. 12-2024
SODIUM HYDROXIDE

South Bay
CITY OF SANTA CLARA
Purchasing Division 1500 Warburton Avenue Santa Clara, CA 95050
Nick van Haeften Division Manager nvanhaeften@santaclaraca.gov 408-615-2717
Alex Price Senior Engineer aprice@santaclaraca.gov 408-615-6051
Minette Castro MCastro@SantaClaraCA.gov
Eugenia Pinheiro EPinheiro@Santaclaraca.gov
DeAnna Hilbrants DHilbrants@SantaClaraCA.gov
Grace Dougherty GDougherty@SantaClaraCA.gov
Michael Lee O&M Manager mile@santaclaraca.gov 408-615-6577

CITY OF SUNNYVALE
Water Pollution Control Plant 1444 Borregas Avenue Sunnyvale, CA 94088-3707
Bryan Berdeen Operations Manager bberdeen@sunnyvale.ca.gov 408-730-7261
Lisa Vo lvo@sunnyvale.ca.gov

Tri Valley
ZONE 7 WATER AGENCY
100 North Canyons Parkway Livermore, CA 94551
Zeljka Bozic Buyer I zbozic@zone7water.com 925 454 5029
Karen Bartels Buyer II kbartels@zone7water.com 925-454-5039
SECTION IV

BAY AREA CHEMICAL CONSORTIUM
BID CONTRACT DOCUMENTS
FOR BID NO. 12-2024
SODIUM HYDROXIDE

*** All of the following pages must be properly competed and submitted for the bid to be considered complete. ***
I hereby agree to furnish SODIUM HYDROXIDE identified in the attached bid forms, as solicited by the Bay Area Chemical Consortium (BACC), to one or more of the participating BACC Agencies.

Company: Univar Solutions USA LLC
Address: 8201 S 212th St.
City, State, ZIP: Kent, WA 98032
Phone: 253-872-5040
Email: jennifer.perras@universolutions.com or muniteam-west@universolutions.com
Authorized Representative: Jennifer M. Perras
Signature: [Signature]
Date: 2/16/2024

WE ACKNOWLEDGE RECEIVING ADDENDUM/ADDENDA NUMBER ______ THROUGH ______.

SPECIFIC DEVIATIONS:

☐ This box must be checked if bidder has any proposed specific deviations. Per Section 2.12 Proposed Deviations from the Specifications by the Bidder, the absence of a proposed changed in the specifications will hold the bidder strictly accountable to the specifications as described in the bid document, including any addendum.

Describe the specific deviations below. A copy of the proposed specifications must be attached to this Standard Agreement at the time of submission, with bidder’s name clearly shown on each document. Any order less than 2,000 gal will be charged an LTL fee of $475.00 per delivery.

If split loads, the first order will be charged the LTL fee.

Please see the attached 2 pages that list the Sodium Hydroxide deviations
Date: February 16, 2024

Re: BACC Bid No. 12-2024: Deviation from BACC NaOH Specifications

In accordance with BACC Bid No. 12-2024, Section 2.12, Proposed Deviations from the Specifications by the Bidder, Univar Solutions intends to supply sodium hydroxide solution to BACC meeting the following technical specifications:

**UNIVAR SOLUTIONS PRODUCT TECHNICAL SPECIFICATIONS**

**SODIUM HYDROXIDE, 20% Solution**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, NaOH</td>
<td>Wt. %</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td>Sodium Oxide, Na₂O</td>
<td>Wt. %</td>
<td>13.6</td>
<td>17.4</td>
</tr>
<tr>
<td>Sodium Chloride, NaCl</td>
<td>PPM</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sodium Carbonate, Na₂CO₃</td>
<td>Wt. %</td>
<td>0</td>
<td>0.15</td>
</tr>
<tr>
<td>Sodium Chlorate, NaClO₃</td>
<td>PPM</td>
<td>0</td>
<td>33</td>
</tr>
<tr>
<td>Sodium Sulfate, Na₂SO₄</td>
<td>PPM</td>
<td>0</td>
<td>67</td>
</tr>
<tr>
<td>Nickel, Ni</td>
<td>PPM</td>
<td>0</td>
<td>0.5 *</td>
</tr>
<tr>
<td>Iron, Fe</td>
<td>PPM</td>
<td>0</td>
<td>5 *</td>
</tr>
<tr>
<td>Mercury, Hg</td>
<td>PPM</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td></td>
<td>1.21</td>
<td>1.23</td>
</tr>
</tbody>
</table>

* Sodium hydroxide for wastewater treatment applications may contain up to 9 mg/L iron (Fe) and 3 mg/L nickel (Ni)

**UNIVAR SOLUTIONS PRODUCT TECHNICAL SPECIFICATIONS**

**SODIUM HYDROXIDE, 25% Solution**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, NaOH</td>
<td>Wt. %</td>
<td>23</td>
<td>27</td>
</tr>
<tr>
<td>Sodium Oxide, Na₂O</td>
<td>Wt. %</td>
<td>17.4</td>
<td>21.3</td>
</tr>
<tr>
<td>Sodium Chloride, NaCl</td>
<td>PPM</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sodium Carbonate, Na₂CO₃</td>
<td>Wt. %</td>
<td>0</td>
<td>0.15</td>
</tr>
<tr>
<td>Sodium Chlorate, NaClO₃</td>
<td>PPM</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>Sodium Sulfate, Na₂SO₄</td>
<td>PPM</td>
<td>0</td>
<td>83</td>
</tr>
<tr>
<td>Nickel, Ni</td>
<td>PPM</td>
<td>0</td>
<td>0.5 *</td>
</tr>
<tr>
<td>Iron, Fe</td>
<td>PPM</td>
<td>0</td>
<td>5 *</td>
</tr>
<tr>
<td>Mercury, Hg</td>
<td>PPM</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td></td>
<td>1.20</td>
<td>1.35</td>
</tr>
</tbody>
</table>

* Sodium hydroxide for wastewater treatment applications may contain up to 9 mg/L iron (Fe) and 3 mg/L nickel (Ni)
UNIVAR SOLUTIONS PRODUCT TECHNICAL SPECIFICATIONS
SODIUM HYDROXIDE, 30% Solution

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide, NaOH</td>
<td>Wt. %</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td>Sodium Oxide, Na₂O</td>
<td>Wt. %</td>
<td>22.3</td>
<td>25.2</td>
</tr>
<tr>
<td>Sodium Chloride, NaCl</td>
<td>PPM</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Sodium Carbonate, Na₂CO₃</td>
<td>Wt. %</td>
<td>0</td>
<td>0.15</td>
</tr>
<tr>
<td>Sodium Chlorate, NaClO₃</td>
<td>PPM</td>
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<td>31</td>
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<tr>
<td>Sodium Sulfate, Na₂SO₄</td>
<td>PPM</td>
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<tr>
<td>Nickel, Ni</td>
<td>PPM</td>
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</tr>
<tr>
<td>Iron, Fe</td>
<td>PPM</td>
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<td>5 *</td>
</tr>
<tr>
<td>Mercury, Hg</td>
<td>PPM</td>
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<tr>
<td>Specific Gravity</td>
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* Sodium hydroxide for wastewater treatment applications may contain up to 9 mg/L iron (Fe) and 3 mg/L nickel (Ni)

UNIVAR PRODUCT TECHNICAL SPECIFICATIONS
SODIUM HYDROXIDE, 50% Solution

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
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<tr>
<td>Sodium Hydroxide, NaOH</td>
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<td>50</td>
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<td>100</td>
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<tr>
<td>Nickel, Ni</td>
<td>PPM</td>
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</tr>
<tr>
<td>Iron, Fe</td>
<td>PPM</td>
<td>0</td>
<td>5 *</td>
</tr>
<tr>
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<td>1.60</td>
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</tbody>
</table>

* Sodium hydroxide for wastewater treatment applications may contain up to 9 mg/L iron (Fe) and 3 mg/L nickel (Ni)

Sincerely,

[Signature]

Tom Edman
Sr. Product Manager- Alkali
STANDARD AGREEMENT, PAGE 2 OF 2

BIDDER INFORMATION

1. Legal Name of Bidder: Univar Solutions USA LLC.

2. Bidder’s Street Address:
   Muni Team-8201 S 212th St., Kent, WA 98032 Branch-2461 Crocker Circle, Fairfield, CA 94533

3. Mailing Address:
   Muni Team-8201 S 212th St., Kent, WA 98032 Invoices-62190 Collections Center Drive, Chicago, IL 60693-0621


5. Type of Supplier:
   □ Sole Proprietor □ Partnership □ Corporation □ LLC
   If Corporation, indicate State where incorporated: Illinois

6. Business License Number issued by the City where the Supplier’s principal place of business is located.
   Number: 32739 Issuing City: Fresno, CA

7. Supplier Federal Tax Identification Number: 91-1347935

8. Emergency Contact:
   Name: Brian Wills
   Phone Number: 650-670-7267

9. Order Contact:
   Name: Customer service
   Address: Phoenix, AZ
   Phone Number: 602-484-4560 Fax Number: 408-435-1735
   Email: CustSolWR@universolutions.com

10. References:
    
    Company/Agency Name | Contact Name | Phone Number
    1) See attached 2 pages | | |
    2) | | |
    3) | | |

11. Chemical Manufacturer’s name and address (if different from Bidder):
    K2-950 Loveridge Rd., Pittsburg, CA 94565
    Univar-12522 Los Neitos Rd., Santa Fe Springs, CA 90670
    Univar-525 Seaport Blvd, Redwood City, CA 94063
References

1. County & County of San Francisco  
   1 Dr. Carlton B Goodlett Place  
   San Francisco, CA 94102  
   
   Contact: Lin Repola- linda.repola@sfgov.org  
   Phone: 415-554-4564  
   Supply and Delivery of Bulk Sodium Hypochlorite, Caustic Soda and Sodium Bisulfite servicing for the past 10 years.

2. East Bay Mud  
   PO Box  
   Oakland, CA 946231  
   
   Contact: John Grimes, Purchasing  
   Email- john.grimes@ebmud.com  
   Phone: 510-287-0316  
   Supply and Delivery of Bulk Sodium Hypochlorite, Bulk Caustic Soda, & Bulk Sodium Bisulfite servicing for the past 10 years.

3. City of Riverside  
   WTP  
   San Bernardino, CA 92408  
   
   Contact: Shiloh Rogers, Procurement & Contract Specialist  
   Email- SARogers@riverside.gov  
   Phone 951-826-5562  
   Supply and Delivery of Sodium Hypochlorite servicing for the past 2 years.
4. BACC-Bay Area Chemical Consortium
   Over 100 locations within Northern California

Contact: each city, info listed below.
Supply and Delivery of Sodium Hypochlorite, Caustic Soda, Sodium Bisulfite servicing
for the past 6 years.
   - City of Stockton, CA – Kathryn Garcia Kathryn.Garcia@stocktonca.gov
     Phone: 209-937-8232
   - City of Turlock, CA- Lisa Quiroga equiroga@turlock.ca.us
     Phone: 209-668-5402
   - Marin Municipal, CA- Jim Kenney jkenney@marinwater.org
     Phone: 415-945-1501

5. City of Los Angeles
   Los Angeles, CA

Contact: Katherin Quinn-
Email: Katherine.Quinn@lacity.org
Phone: 310-648-5665
Supply and Delivery of Sodium Hypochlorite for the past 4 years

6. County Sanitation Districts of Los Angeles County
   PO Box 7998
   Whittier, CA  90607-4998

Contact: Martha Ibarra
Emails: mibarra@lacsd.org
Phone: (562) 908-4288 ext. 1423
For Supply and Delivery of Bulk Sodium Hydroxide (Caustic Soda) 50% and Calcium
Hydroxide 45%, have been servicing for 6 years

Over the past 10 years, Univar has participated in 100's of Municipal bids, we have
listed the 6 projects represent our capabilities in California.

All of our operational personnel participated in making sure all delivery requirements
were met to each customer.

Our customer service department takes care of all orders, they communicate with
operations and the customer to make sure all requests are satisfied.

We meet 100% of our contractual obligations; any municipality that is under contract
with Univar is serviced first if there is a shortage in the market place.
Non-Collusion Affidavit
To Be Executed By Bidder and Submitted With Bid

Washington
State of California

County of King

Jennifer M. Perras, being first duly sworn, deposes and says that he or she is the
(Bidder's Authorized Representative)
Sr. Municipal Specialist of Univar Solutions USA LLC the party making the
(Title of Representative) (Legal Name of Bidder)

foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bid, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the state of California that the foregoing is true and correct.

[Signature]
Signature of: President, Secretary,
Manager, Owner, or Representative

Subscribe and sworn to before me this, 16th day of February, 2024

[Signature]
Signature of Notary Public In and For

The County of King

State of Washington

All Signatures Must Be Witnessed By Notary
BAY AREA CHEMICAL CONSORTIUM
BID FORM FOR BID NO. 12-2024
FOR SUPPLY AND DELIVERY OF SODIUM HYDROXIDE

Sealed bids must be submitted in a PDF format and bidders must enter bid prices into the electronic bid platform (Line Item page) https://bacwa.org/about-bacc/

No later than 4:00 PM. PT Thursday, February 22, 2024

Legal Name of Bidder: Univar Solutions USA LLC

Business Address
8201 S 212th St.
Kent, WA 98032

Telephone Number: 253-872-5040
Facsimile Number: 253-872-5041
Email Address: munteam-west@universolutions.com

Authorized Representative (Please Print):
Jennifer M. Perras
Signature: [Signature]
Date: 2/16/2024

I. All costs except California State sales tax for the purchase of SODIUM HYDROXIDE must be included in the amount shown entered into the electronic bid platform (Line Item page), including any and all mill assessments, fees, excise taxes, transportation charges, etc. Any exceptions to the bid must be noted under Specific Deviations on the Standard Agreement. Bidders shall submit bids per unit of measure as specified in the electronic bid platform (Line Item page).

II. Bidders must submit all of the following, attached to this Bid Form:
   a. All requirements listed in Section 2.21 Manufacturer’s Info.
   b. If applicable, the name, address, and contact information for the third party hauling company as well as an affidavit signed by the Bidder that the third party hauler can and will deliver the chemical to each and every participating BACC Agency.

III. Bidder Obligations
    By signing this Bid Form and entering into individual purchase orders, purchase agreements and /or contracts with BACC agencies, the bidder expressly agrees to be bound by all the provisions of the bid solicitation, including Sections I-IV.
AFFIDavit RE DELIVERY REQUIREMENTS

STATE OF WASHINGTON
COUNTY OF KING

I, Jennifer Perras, the Municipal Specialist for Univar Solutions USA LLC. ("Univar") being duly sworn, states that I have read RFP#12-2024 and knows its contents and hereby attests that if Univar utilizes the services of a third party hauling company for some or all of its deliveries, Univar will be responsible for ensuring that said hauler can and will deliver the product to each location shown on the bid documents.

Chemical Transfer Co.-3105 El Dorado St., Stockton, CA 95206 #209-466-3554
Bulk Transportation- 415 S Lemon Ave., Walnut, CA 91789 #909-594-2855
Quality Carriers- 2750 Goodrick Ave, Richmond, CA #510-232-8313
Rj’s Transportation-11949 Hawthorne Ave, CA 92345 #909-732-9144

By

Jennifer M. Perras

SUBSCRIBED AND SWORN to before me this ______ day of February 2024, Jennifer M. Perras.

Notary Public for Washington, County of King
My Commission Expires: 10-10-2016

STACY L ZIEgLER
NOTARY PUBLIC
STATE OF WASHINGTON
Univar Inc. is committed to embedding sustainability throughout our business. Univar recognizes that sustainability goes beyond reducing our impacts on the environment and that it involves an all-encompassing social, economic and environmental philosophy. Univar is a global enterprise with a strong ethical approach to business – a responsible corporate citizen. Univar encourages and values sustainable business practices across our value chain, and we support and encourage our suppliers and customers on their journeys to a sustainable future.

To meet our commitment the Sustainability Policy is guided by the principles below:

- Compliance with all applicable legal requirements and to operate in accordance with both government and industry codes of practice and guidance that are appropriate to our activities;
- Minimize any adverse impacts of our operations on the environment or the surrounding communities;
- Engage with our key stakeholders to ensure that our environmental and social efforts remain relevant;
- Communicate our commitment and our ongoing efforts relating to sustainability to our employees and the wider value chain;
- Encourage and support environmentally and socially responsible behavior from our customers and suppliers including those relating to key topics such as climate change or labor practices;
- Consider in our actions the principles of ISO26000 ‘Guidance on Social Responsibility’ to ensure a comprehensive approach towards sustainability;
- Open and transparent reporting on issues that may impact our environment and society annually through a report informed by the Global Reporting Initiative (GRI) standards;
- Provide our supply chain partners with more sustainable choices in the markets that we operate;
- Review performance of sustainability metrics on an ongoing basis to ensure continual improvement.

The principles of this policy are core to our sustainability agenda, shaping our objectives and initiatives.

Phil Hockaday  
Vice President, Global Environmental, Health and Safety  
Univar Inc.

Effective Date: 5th May 2017
NACD Responsible Distribution Process
Code of Management Practice

Each member company shall have an active program designed to continuously improve safety and reduce incidents. This Code does not impose upon member companies any obligation to guarantee compliance by third parties, i.e., parties over whom the member companies have no control. This program shall include:

I. **Risk Management**
   A. Senior management commitment, through policy, communications, and resources, to on-going improvements in chemical distribution safety.
   B. Regular review with suppliers of the hazards of materials.
   C. Identification and implementation of risk reduction measures.

II. **Compliance Review and Training**
   A. A process for monitoring regulations and industry practices for their application to chemical distribution activities.
   B. A process for implementing applicable regulations and industry practices that apply to chemical distribution activities.
   C. Training for all employees in the implementation of applicable regulations, as well as member company's specific requirements.
   D. A process for review of employee compliance with applicable regulations and member company's specific requirements and review of outside contractor and re-seller compliance with member company's specific requirements.

III. **Carrier Selection**
   A. A process for selecting carriers to transport chemicals that includes carrier safety and fitness, security, regulatory compliance, and performance review.
IV. Handling and Storage

A. Procedures for ensuring that containers are appropriate for the chemical being shipped, comply with regulatory requirements, and are free from leaks and visible defects.

B. Criteria for the cleaning and re-use of transportation equipment and chemical containers, and the proper disposal of cleaning residues.

C. Procedures for loading and unloading chemicals at the member company's facilities that result in protection of personnel, a reduction in emissions to the environment, and ensures that chemicals are loaded and unloaded into and out of proper storage facilities.

D. A program for providing manufacturer guidance and information to customers, warehouses, terminals and/or carriers on procedures for loading, unloading, and/or storing chemicals.

E. A process for selecting owned and contracted facilities and sites for chemical storage or handling that emphasizes safety, fitness and includes reviews.

F. Documentation of current operating procedures for handling and storing chemicals.

G. Facility design, construction, maintenance, inspection, and security practices that promote facility integrity, consistent with recognized codes and regulations.

H. Develop a process for addressing chemical site and chemical transportation security.

I. Provisions for control of processes and equipment during emergencies resulting from natural events, utility disruptions, and other external conditions.

J. Procedures to properly label and mark packages and containers.
V. Job Procedures and Training

A. Identification of the skills and knowledge necessary to perform each job.

B. Establishment of procedures and work practices for safe operating and maintenance activities.

C. Training for all personnel to reach and maintain proficiency in safe work practices and the skills and knowledge necessary to perform their job, including confirmation of competence.

D. Programs designed to assure that personnel in safety critical jobs are fit for duty and are not compromised by external influences, including alcohol and drug abuse.

E. Outside Contractors: In areas where hazardous materials are present, members shall have a process in place to inform contractors of the known hazards and the emergency action plan.

VI. Waste Management and Conservation Practices

A. Procedures to ensure that all self-generated waste and empty containers are disposed of in a responsible manner, and in accordance with existing regulations.

B. A clear commitment by senior management through policy communications, resources, and programs to ongoing waste reductions and pollution prevention at each member facility.

C. A commitment to institute resource conservation measures.

VII. Emergency Response and Public Preparedness

A. A process for responding to, reporting on, and investigating chemical distribution incidents and releases involving the member company’s chemicals, and implementation of appropriate preventive measures developed form that investigative process.

B. A system of internal investigation, reporting, appropriate corrective action, and follow-up for each incident and/or near miss that result or could have resulted in chemical incidents or releases.

C. Procedures for making emergency response information concerning the member company’s chemicals available to response agencies.
D. Communication with state and/or local emergency planning commissions and response organizations on the potential hazards of the member company's chemicals.

E. Annual review, testing, and assessment of the operability of the member company's written emergency action and fire prevention plan and/or emergency response plan.

F. Facility tours for first responders to promote emergency preparedness and to provide current knowledge of facility operations.

G. Coordination of the written facility emergency response plan with the local emergency response team and other facilities. If no community plan exists, the facility should assist with efforts to create one.

H. Participation in the Local Emergency Planning Committee's process to develop and periodically test the local emergency response plan.

VIII. Community Outreach

A. Interaction with organizations, associations, government officials and/or the public on behalf of NACD's Responsible Distribution Process®.

B. Information and updated material for employees on the Responsible Distribution Process® to encourage key employees to become involved in community outreach efforts.

C. Advocacy of responsible public policies and regulations for chemical distribution.

IX. Product Stewardship

Customers

A. A process to qualify customers as prescribed by governmental regulation.

B. Member companies should work with customers to foster appropriate dissemination of information on the proper use, handling and disposal of products commensurate with product risk. A member may decide to cease doing business with customers whose practices are clearly inconsistent with the Responsible Distribution Process®.
X. Internal RDP Audits

A. Member companies shall establish documented procedures for regularly scheduled INTERNAL AUDITS to verify the implementation of policies and procedures supporting the RDP Code of Management Practice. The audits will be used to evaluate the effectiveness of the policies and procedures. Internal Audits shall be done on a yearly basis beginning with successful completion of the Interim Verification Process.

B. Audits shall be recorded and results brought to the attention of appropriate management personnel who must take timely corrective or preventive action. Annual audit results should be retained until the next Third-party On-Site Verification is completed.

XI. RDP Corrective and Preventive Action

A. Member companies shall establish a CORRECTIVE AND PREVENTIVE ACTION system for RDP related issues. This system should permit the identification and communication of inadequacies or improvements in each member company’s implementation of RDP.

B. Member companies shall establish and maintain procedures for implementing corrective action and preventive actions arising from internal and external audits or other sources. Any corrective or preventive action taken to resolve the cause or RDP implementation inadequacy shall be appropriate, as determined by member company management, to the magnitude of the cause or inadequacy and commensurate with the risk involved.
XII. **RDP Document and Data Control**

A. Member companies shall establish and maintain a documented system to control all policies and procedures supporting RDP. In addition, member companies shall maintain a documented system to control the documents and data relating to RDP itself as issued by the National Association of Chemical Distributors (NACD).

B. Data includes any of the above that is electronically stored and utilized.

C. These documented procedures shall include provisions for review and approval of any new or revised policies and procedures by the authorized personnel within the member company.

D. A master list or functionally equivalent document control system identifying the current version of each document shall be established and be readily available to preclude the use of invalid and/or obsolete documents. The system shall ensure that:

Changes to documents and data shall be reviewed and approved by the same function/organization that performed the original review and approval, unless specifically designated otherwise. These functions/organizations shall have access to pertinent background information upon which to base their review and approval. Where practical, the nature of the change shall be identified in the document or appropriate attachments.
NACD Responsible Distribution Process

Guiding Principles

1. To recognize and respond to community concerns about chemicals, their handling, and transportation.

2. To make health, safety, security, and environmental considerations a priority in our planning for all existing and new operations, products, processes, and facilities.

3. To inform emergency response officials, employees, customers, and the public of manufacturer's information on chemical-related health or environmental hazards, and the manufacturer's recommendations on protective measures.

4. To work with customers, in accordance with manufacturer's recommendations, on product stewardship including handling, use, transportation, and disposal of chemical products.

5. To operate our plants and facilities in a manner that protects the health and safety of our employees, the public and the environment.

6. To cooperate in resolving problems created by past handling and disposal of hazardous chemicals.

7. To participate with government and others in creating responsible laws, regulations, and practices to help safeguard the community, workplace, and environment.

8. To promote the principles and practices of Responsible Distribution Process by sharing experiences and offering assistance to others who produce, handle, use, transport, or dispose of chemicals.
RDP – What Is It?

Univar is a member of the National Association of Chemical Distributors. This trade association developed the Responsible Distribution Process℠ (RDP), which focuses on the responsible management and distribution of chemicals.

RDP emphasizes continual improvement in the health, safety, security, and environmental performance of all NACD member companies. This includes a commitment to comply with environmental, health and safety regulations; providing critical product safety information to employees, contractors and customers; while working with local communities and neighbors to respond to their needs. RDP consists of a set of Guiding Principles and the Code of Management Practice. This Code includes 47 specific requirements, divided into twelve sections:

- Risk Management
- Compliance Review and Training
- Carrier Selection
- Handling and Storage
- Job Procedures and Training
- Waste Management & Conservation
- Emergency Response/Public Preparedness
- Community Outreach
- Product Stewardship
- Internal RDP Audits
- RDP Corrective & Preventive Action
- RDP Document & Data Control

A key requirement of RDP and a condition of membership in NACD is verification of members’ RDP policies and procedures by a third-party firm. Univar received the first Third-Party verification in 1995 and received a compliance certificate. We were re-certified in 2000 and again in 2004.

Univar maintains a leadership position in NACD, and remains firmly committed to the Responsible Distribution Process and its objective of promoting continual improvement in chemical handling and distribution.
I. INTRODUCTION

(A) Scope

Univar USA Inc. (UNIVAR) is committed to conducting its operations in a manner that minimizes the risk to the safety and health of our employees, customers, the public and the environment.

(B) Purpose

This Injury & Illness Prevention Program (IIPP) has been developed by UNIVAR for its employees who may be exposed to general and/or chemical hazards. This program meets the requirements of Senate Bill 198 enacted under California Labor Code Section 6401.7 and the General Industry Safety Orders Section 3203.

This IIPP represents only a portion of UNIVAR's Safety and Environmental Program. The program includes several written programs and manuals such as the Operating Standards Manual, Emergency Contingency Plan, Risk Management Program, Process Safety Management Program, Hazard Communication Program, Respiratory Protection Program, Confined Space Entry Program, Lock Out/Tag Out Program, Hot Work Program and Documentation Manual. The IIPP is not intended to be a standalone program but rather a supplement to all of the other current programs. The primary functions of this program are to inform employees of the regulation, highlight areas of occupational hazards, direct them to the proper means of minimizing the identified hazards and define the lines of communication between employees and management.

This IIPP is available for review by employees, government agencies, vendors, contractors or any other parties who have a need to examine the Program. The Program includes:
Univar Solutions USA Inc.
Safety Information

Employer Information: Name, address, telephone number, type of business and main activity.

Administrator Information: Person with the authority and responsibility to administer the program.

Safety & Health Hazard Evaluation: A two step process which includes job classification and occupational hazard analysis.

Standard Operating Procedures/Operating Standards: Programs and procedures necessary to ensure employee safety and health in every aspect of their job.

Inspection Program: Inspections are conducted: (1) when the IIPP is first established; (2) whenever new substances, processes, procedures, or equipment are introduced into the workplace; (3) whenever a new or previously unrecognized hazard is identified; (4) when occupational injuries or illnesses occur; and (5) whenever workplace conditions warrant an inspection. Scheduled daily, weekly and monthly inspections.

Training Program: Employees receive initial, refresher and ongoing training as required.

Communication: Provides a means to instruct employees on the hazards associated with each job classification; ensure employees’ compliance with standard operating procedures and safe work practices; encourage employees to participate in the safety program and identify areas of concern and/or hazards.

Safety Award Program: Company program that encourages and rewards employees for working safely.
Univar Solutions USA Inc.
Safety Information

Progressive Disciplinary Action Policy: Company policy that disciplines employees that do not perform their job functions according to established policies, procedures and guidelines. These policies, procedures and guidelines have been developed to establish a safe working environment for all of our employees and any deviation from them will not be tolerated.

Recordkeeping Requirements: Includes this written program; hazard analysis; the OSHA 300 Log; Standard Operating Procedures; inspections; training; meeting records and disciplinary actions for a period of time prescribed.

Program Reviews: Review and assess this and other company programs as required to ensure their effectiveness and applicability.
UNIVAR SOLUTIONS SECURITY PROGRAM

As an international distributor of industrial chemicals, a participant in the National Association of Chemical Distributors Responsible Distributor program, and an active member of the communities we serve, Univar Solutions USA Inc. (Univar) has long had policies and procedures in place to ensure the security of our products, facilities, employees and communities. The following summary outlines the major provisions of Univar’s Security Program which reflects not only prudent measures to maximize the secure and safe handling of chemicals, but also the security requirements of various federal programs related to management of hazardous materials including DOT hazardous material transportation requirements, DHSCFAT program and Department of Commerce import rules among others. Note that this description is necessarily a broad overview of Univar’s security program as various agencies limit the security related information that can be disclosed.

For our business partners that are C-TPAT certified please consider the following outline a demonstration of the degree to which Univar complies with C-TPAT security criteria.

BUSINESS PARTNER REQUIREMENT

Univar has a written and verifiable process for the selection of business partners including manufacturers, product suppliers and vendors. Other internal requirements such as; capability of meeting contractual security requirements and financial soundness are included in the verification process.

POINT OF ORIGIN

Univar ensures its foreign business partners have security criteria in place that enhances the integrity of the shipment at point of origin. Periodic reviews of foreign business partners’ processes and facilities are conducted based on risk.

CONTAINER SECURITY

Container integrity is maintained as mandated by international cargo transport laws and regulations.

EN ROUTE SECURITY

Hazardous cargo is secured while in transit. Additionally, products and routes are annually evaluated to assess potential security risks.

COMMON CARRIER EVALUATION

In addition to the above security measures, Univar has taken steps to verify our common carriers’ compliance with DOT’s HM-232 rules. Each common carrier has been asked to certify their security compliance with regards to HM-232.
PERSONNEL SECURITY
Personnel security begins with hiring qualified employees. Univar has established policies and procedures to ensure we hire and maintain qualified employees. These policies and procedures include, but are not limited to:

- Pre-employment background checks
- Pre-employment and random drug tests for drivers and warehouse staff
- Policy on "Standards of Conduct" (included in the Employee Handbook)
- Policy on "Confidential Information" (included in the Employee Handbook)
- Checkout procedures for terminating employees
- Referral of illegal or criminal activities to law enforcement

PHYSICAL ACCESS CONTROLS & SECURITY, PROCEDURAL & IT SECURITY
SECURITY & VULNERABILITY ASSESSMENT
Due to the hazardous nature of the chemicals we manage and distribute, Univar constantly assesses its security and vulnerability concerning internal or external threats that could potentially disrupt operations or harm our employees, communities or the environment.

Univar’s security program addresses the following potential sources of loss or disruption:

- Theft, vandalism, and break-ins
- Theft of confidential business information
- Sabotage of equipment, utilities, and records
- Product contamination and tampering
- Bomb threats
- Civil unrest disrupting plant access and operations
- Workplace violence and assaults

Additionally, Univar has developed a risk-based matrix to identify areas of concern and has taken steps to address those areas of concern.

The initial security evaluations periodically reviewed by the site security official to evaluate the integrity and effectiveness of security policies, procedures and systems.

UNAUTHORIZED ACCESS
Univar has established minimum facility security guidelines that must be implemented and adhered to by each facility. Those minimum guidelines include but are not limited to:

- Perimeter and warehouse security
- Equipment security
- Access controls for production areas, warehouses, utility facilities, and offices
- Signs to direct visitors and vehicles to the appropriate entry points
- Visitor control
Univar employees have been trained to question unescorted person(s) within the operating areas, and to be watchful for unusual activity on company property or in the immediate surrounding areas.

SITE SECURITY COORDINATOR
Each Univar facility has designated an employee, and an alternate, as the site security coordinator. This person(s) is responsible for performing the following security management functions:

- Prepare and implement a site specific security program consistent with the requirements herein
- Establish relationships with law enforcement and emergency response agencies
- Manage incident reporting procedures, conduct incident investigations, and if necessary, conduct investigations into breaches of company security policy
- Train employees about security awareness
- Address security issues in an emergency, participate in crisis management planning and ensure appropriate execution in emergency
- Periodically reassess the facility’s site security program

TRAINING
The Security Coordinator or his/her designee will train site personnel upon hire and every three years thereafter on the site security program. At a minimum, training includes:

- Company security objectives
- Specific site security procedures:
  - Product integrity
  - Personnel security
  - Facility security
  - En-route security
- Employee responsibilities

Should you have any general questions regarding Univar site and transit security program, please contact Jon Webster, Senior Vice President, North America Supply Chain & Operations at (425)241-7138 or Jeff Dixon, Director, International Trade Services at (281)543-8771.

Respectfully,

Jonathan (Jon) Webster
Senior Vice President
North America Supply Chain & Operations
COMMON CARRIER EVALUATION

In addition to the above security measures, Univar has taken steps to verify our common carriers’ compliance with DOT’s HM-232 rules. Each common carrier has been asked to certify their security compliance with regards to HM-232.

Should you have any questions regarding any of the items noted in this security program summary, please feel free to contact your local Univar representative or myself at (425) 889-3776.

Respectfully,

[Signature]

Ed Higbee
Director – Regulatory, Health & Safety
The Public Health and Safety Organization

**NSF Product and Service Listings**

These NSF Official Listings are current as of **Tuesday, February 13, 2024** 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?

CompanyName=univar&ChemicalName=Sodium+Hydroxide&

---

**NSF/ANSI/CAN 60**

Drinking Water Treatment Chemicals - Health Effects

---

**Univar Solutions Canada Ltd. DBA Univar Canada Ltd.**

64 Arrow Road

North York, ON M9M 2L9

Canada

416-740-5300

**Facility**: Distribution Center - Dartmouth, Nova Scotia, Canada

---

**Sodium Hydroxide**

**Trade Designation** | **Product Function** | **Max Use**
---|---|---
CAUSTIC SODA 50% SOLUTION | Corrosion & Scale Control | 100mg/L
 | pH Adjustment | 100mg/L
CAUSTIC SODA 50% SOLUTION COMMERCIAL GRADE | Corrosion & Scale Control | 100mg/L
 | pH Adjustment | 100mg/L
CAUSTIC SODA 50% SOLUTION MEMBRANE GRADE | Corrosion & Scale Control | 100mg/L
 | pH Adjustment | 200mg/L
Caustic Soda 25% Solution | Corrosion & Scale Control | 166mg/L
 | pH Adjustment | 166mg/L
Caustic Soda 30% Solution | Corrosion & Scale Control | 166mg/L
 | pH Adjustment | 166mg/L
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<thead>
<tr>
<th>Product Name</th>
<th>Facility</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide 30% Solution</td>
<td>Edmonton, Alberta, Canada</td>
<td>166mg/L</td>
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<tr>
<td><strong>Trade Designation</strong></td>
<td><strong>Product Function</strong></td>
<td><strong>Max Use</strong></td>
</tr>
<tr>
<td>Caustic Soda 25% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 50% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda Solution 50%, Commercial Grade</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda Solution 50%, Membrane Grade</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 25% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 50% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
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</tbody>
</table>

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

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<tr>
<th>Product Name</th>
<th>Facility</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Sodium Hydroxide 25% Solution</td>
<td>North Vancouver, British Columbia, Canada</td>
<td>200mg/L</td>
</tr>
<tr>
<td><strong>Trade Designation</strong></td>
<td><strong>Product Function</strong></td>
<td><strong>Max Use</strong></td>
</tr>
<tr>
<td>Caustic Soda 25% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 25%, Commercial Grade</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
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<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 25%, Membrane Grade</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Caustic Soda Solution 50%, Commercial Grade</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda Solution 50%, Membrane Grade</td>
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<td>100mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
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<tr>
<td>Sodium Hydroxide 25% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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Facility: Richmond, British Columbia, Canada

Sodium Hydroxide

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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</thead>
<tbody>
<tr>
<td>Caustic Soda 25% Solution</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50% Solution</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Vanblend Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>100mg/L</td>
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<tr>
<td>Vanblend LP 1422 (Caustic Soda 25% Solution)</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
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Facility: Sturgeon County, Alberta, Canada

Sodium Hydroxide

<table>
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<tr>
<th>Trade Designation</th>
<th>Product Function</th>
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<tbody>
<tr>
<td>Caustic Soda 50% Solution</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%, Commercial Grade</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%, Membrane Grade</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>100mg/L</td>
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<tr>
<td>Sodium Hydroxide 50% Solution</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>100mg/L</td>
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Facility: Valleyfield, Québec, Canada

Sodium Hydroxide
<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
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</thead>
<tbody>
<tr>
<td>CAUSTIC SODA 50%, MEMBRANE</td>
<td>Corrosion &amp; Scale Control</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 10% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>500mg/L</td>
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</tr>
<tr>
<td>Caustic Soda 25% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 30% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>333mg/L</td>
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<td>pH Adjustment</td>
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<td>Caustic Soda 50% - Diaphragm</td>
<td>Corrosion &amp; Scale Control</td>
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<td></td>
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<td>Corrosion &amp; Scale Control</td>
<td>333mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
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<tr>
<td>Sodium Hydroxide 50% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
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<td>pH Adjustment</td>
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Facility: Weston, Ontario, Canada

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
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<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>CAUSTIC SODA 50% MEMBRANE GRADE</td>
<td>Corrosion &amp; Scale Control</td>
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</tr>
<tr>
<td>CAUSTIC SODA 50% SOLUTION</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<td></td>
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<tr>
<td>SODIUM HYDROXIDE 50% SOLUTION</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<td>pH Adjustment</td>
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Facility: Winnipeg, Manitoba, Canada
**Sodium Hydroxide**

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<th>Product Function</th>
<th>Max Use</th>
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<tbody>
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<td>Caustic Soda 25% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 25%, Commercial Grade</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 25%, Membrane Grade</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 50% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda Solution 50%, Commercial Grade</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
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<tr>
<td>Caustic Soda Solution 50%, Membrane Grade</td>
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<td>100mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
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<tr>
<td>Sodium Hydroxide 25% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
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<tr>
<td>Sodium Hydroxide 50% Solution</td>
<td>Corrosion &amp; Scale Control</td>
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<td></td>
<td>pH Adjustment</td>
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**Facility:** Winnipeg, Manitoba, Canada

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<tbody>
<tr>
<td>Caustic Soda 25% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
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<tr>
<td>Caustic Soda 50% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<tr>
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<td>200mg/L</td>
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<td>pH Adjustment</td>
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<tr>
<td>Sodium Hydroxide 50% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
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**Univar Solutions USA Inc.**
3075 Highland Parkway
Facility: Rayong Province, Thailand

Sodium Hydroxide

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Caustic Soda Micropearls</td>
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</tr>
<tr>
<td>Caustic Soda Micropearls</td>
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</tbody>
</table>

Univar Solutions USA Inc. DBA
Univar Solutions USA
3075 Highland Parkway
Suite 200
Downers Grove, IL 60515
United States
425-889-3400

Facility: #1 Distribution Center - Richmond, CA

Sodium Hydroxide

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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</thead>
<tbody>
<tr>
<td>Caustic Soda 10%</td>
<td>pH Adjustment</td>
<td>500mg/L</td>
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<tr>
<td>Caustic Soda 13%</td>
<td>pH Adjustment</td>
<td>384mg/L</td>
</tr>
<tr>
<td>Caustic Soda 15%</td>
<td>pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
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<tr>
<td>Caustic Soda 30%</td>
<td>pH Adjustment</td>
<td>165mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 10%</td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Sodium Hydroxide 13%</td>
<td>pH Adjustment</td>
<td>384mg/L</td>
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<td>Sodium Hydroxide 15%</td>
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<tr>
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<td>250mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
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<tr>
<td>Sodium Hydroxide 30%</td>
<td>pH Adjustment</td>
<td>165mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>
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**Facility**: # 1 St. Louis, MO

<table>
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<tr>
<th>Sodium Hydroxide</th>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Caustic Soda 50%</td>
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<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<tr>
<td></td>
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<tr>
<td>Sodium Hydroxide</td>
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<td>Corrosion &amp; Scale Control</td>
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<td>Corrosion &amp; Scale Control</td>
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</table>

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**Facility**: # 1 Chattanooga, TN

<table>
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<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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</thead>
<tbody>
<tr>
<td>Caustic Soda 20%</td>
<td></td>
<td>Corrosion Control</td>
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<tr>
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</tr>
<tr>
<td>Caustic Soda 25%</td>
<td></td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
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<tr>
<td>Sodium Hydroxide 25%</td>
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<td>pH Adjustment</td>
<td>200mg/L</td>
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<tr>
<td>Sodium Hydroxide 50%</td>
<td></td>
<td>Corrosion &amp; Scale Control</td>
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**Facility**: # 2 St. Louis, MO
### Sodium Hydroxide

**Trade Designation**

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<tr>
<th>Trade Designation</th>
<th>Product Function</th>
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<tbody>
<tr>
<td>Caustic Soda 20%</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 30% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>165mg/L</td>
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<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 50% Solution</td>
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<td>100mg/L</td>
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<tr>
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<td>Corrosion &amp; Scale Control</td>
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<td>165mg/L</td>
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**Facility:** # 2 Distribution Center - Toledo, OH

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<th>Product Function</th>
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<tr>
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</table>

**NOTE:** Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility:** Chickasaw, AL
Caustic Soda 25%  Corrosion & Scale Control  200mg/L
Caustic Soda 50%  pH Adjustment  100mg/L
Sodium Hydroxide 20%  Corrosion & Scale Control  250mg/L
Sodium Hydroxide 25%  pH Adjustment  200mg/L
Sodium Hydroxide 50%  Corrosion & Scale Control  100mg/L

**Facility**: Distribution Center - Glendale, AZ

Sodium Hydroxide

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<tbody>
<tr>
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<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
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</tbody>
</table>

**Facility**: Distribution Center - Phoenix 27th Ave., AZ

Caustic Soda 15%  pH Adjustment  333mg/L
Caustic Soda 20%  pH Adjustment  250mg/L
Caustic Soda 25%  pH Adjustment  200mg/L
Caustic Soda 30%  pH Adjustment  165mg/L
Caustic Soda 50%  pH Adjustment  100mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: North Little Rock, AR

Sodium Hydroxide

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https://info.nsf.org/Certified/PwsChemicals/Listings.asp?CompanyName=univar&TradeName=&ChemicalName=Sodium+Hydroxide&ProductFunction... 9/38
**Facility:** Commerce, CA

### Sodium Hydroxide

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**Facility:** Distribution Center - Santa Fe Springs, CA

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Sodium Hydroxide 25%  pH Adjustment  200mg/L
Sodium Hydroxide 30%  pH Adjustment  165mg/L
Sodium Hydroxide 32%  pH Adjustment  156mg/L
Sodium Hydroxide 50%  pH Adjustment  100mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility: Distribution Center - Wilmington, CA

Sodium Hydroxide

Trade Designation  Product Function  Max Use
Caustic Soda 15%  pH Adjustment  333mg/L
Caustic Soda 20%  pH Adjustment  250mg/L
Caustic Soda 25%  pH Adjustment  200mg/L
Caustic Soda 3%  pH Adjustment  1667mg/L
Caustic Soda 30%  pH Adjustment  165mg/L
Caustic Soda 50%  pH Adjustment  100mg/L
Sodium Hydroxide 15%  pH Adjustment  333mg/L
Sodium Hydroxide 20%  pH Adjustment  250mg/L
Sodium Hydroxide 25%  pH Adjustment  200mg/L
Sodium Hydroxide 3%  pH Adjustment  1667mg/L
Sodium Hydroxide 30%  pH Adjustment  165mg/L
Sodium Hydroxide 50%  pH Adjustment  100mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility: Fresno, CA

Sodium Hydroxide

Trade Designation  Product Function  Max Use
Caustic Soda 50%  pH Adjustment  100mg/L
Corrosion & Scale Control
Sodium Hydroxide  Corrosion & Scale Control  100mg/L
pH Adjustment
pH Adjustment
Sodium Hydroxide 50%  Corrosion & Scale Control  100mg/L
pH Adjustment
NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Redwood City, CA

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**Facility**: San Pedro, CA

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**Facility**: Visalia, CA

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**Facility**: Denver, CO

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**Facility**: Distribution Center - Jacksonville Contanda Terminal, FL

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Caustic Soda 50% | Corrosion & Scale Control | 100mg/L  
Sodium Hydroxide 15% | Corrosion & Scale Control | 333mg/L  
Sodium Hydroxide 20% | Corrosion & Scale Control | 250mg/L  
Sodium Hydroxide 25% | Corrosion & Scale Control | 200mg/L  
Sodium Hydroxide 30% | Corrosion & Scale Control | 165mg/L  
Sodium Hydroxide 50% | Corrosion & Scale Control | 100mg/L  

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**Facility**: Distribution Center - Tampa, FL

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**Facility**: Tampa, FL

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**Facility**: Distribution Center - Brunswick, GA

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<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 60%</td>
<td>pH Adjustment</td>
<td></td>
</tr>
</tbody>
</table>

**Note**: Only products bearing the "NSF 60" designation are NSF Certified.

**Facility**: Norcross, GA

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 32%</td>
<td>pH Adjustment</td>
<td>156mg/L</td>
</tr>
<tr>
<td>Product</td>
<td>Function</td>
<td>Max Use</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>Corrosion &amp; Scale Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 30-49%</td>
<td>Corrosion Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 32%</td>
<td>Corrosion Control</td>
<td>156mg/L</td>
</tr>
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<td>Sodium Hydroxide 50%</td>
<td>Corrosion Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Weak Caustic</td>
<td>pH Adjustment</td>
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NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Distribution Center - Nampa, ID

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Bedford Park, IL

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 15%</td>
<td>pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td>pH Adjustment</td>
<td>165mg/L</td>
</tr>
</tbody>
</table>

https://info.nsf.org/Certified/PwsChemicals/Listings.asp?CompanyName=univar&TradeName=&ChemicalName=Sodium+Hydroxide&ProductFunc...
Caustic Soda 50%  pH Adjustment  100mg/L  
Caustic Soda 20%  pH Adjustment  250mg/L  
Caustic Soda 25%  pH Adjustment  200mg/L  

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility: Distribution Center - Argo, IL

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 15%</td>
<td>pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Caustic Soda 17%</td>
<td>pH Adjustment</td>
<td>294mg/L</td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td>pH Adjustment</td>
<td>165mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 15%</td>
<td>pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 17%</td>
<td>pH Adjustment</td>
<td>294mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 30%</td>
<td>pH Adjustment</td>
<td>165mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

Facility: Distribution Center - Sauget, IL

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 20%</td>
<td>Corrosion &amp; Scale Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td>Corrosion &amp; Scale Control</td>
<td>165mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>Product Function</td>
<td>Max Use</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>30%</td>
<td>Corrosion &amp; Scale Control</td>
<td>165mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Kansas City, KS

**Sodium Hydroxide**

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<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td>Corrosion &amp; Scale Control</td>
<td>165mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 30%</td>
<td>Corrosion &amp; Scale Control</td>
<td>165mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Distribution Center, Geismar, LA

**Sodium Hydroxide**

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<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>Corrosion &amp; Scale Control</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
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</tr>
</tbody>
</table>

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**Facility:** Geismar Highway 75, LA

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 50%</td>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

**NOTE:** Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility:** Baltimore, MD

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 10%</td>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td>500mg/L</td>
</tr>
<tr>
<td>Caustic Soda 15%</td>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td>165mg/L</td>
</tr>
<tr>
<td>Caustic Soda 35%</td>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td>143mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td></td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 10%</td>
<td></td>
<td>pH Adjustment</td>
<td>500mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 15%</td>
<td></td>
<td>pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td></td>
<td>Scale Control</td>
<td>250mg/L</td>
</tr>
</tbody>
</table>
Sodium Hydroxide 25%  
Corrosion & Scale Control  
pH Adjustment  
200mg/L

Sodium Hydroxide 30%  
Corrosion & Scale Control  
pH Adjustment  
165mg/L

Sodium Hydroxide 35%  
Corrosion & Scale Control  
pH Adjustment  
143mg/L

Sodium Hydroxide 50%  
Corrosion & Scale Control  
pH Adjustment  
100mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility: St. Paul Westway Terminal, MN

Sodium Hydroxide  
Trade Designation  
Product Function  
Max Use

Caustic Soda 25%  
Corrosion & Scale Control  
200mg/L

Caustic Soda 30%  
Corrosion & Scale Control  
165mg/L

Caustic Soda 50%  
Corrosion & Scale Control  
100mg/L

Sodium Hydroxide 25%  
Corrosion & Scale Control  
200mg/L

Sodium Hydroxide 30%  
Corrosion & Scale Control  
165mg/L

Sodium Hydroxide 50%  
Corrosion & Scale Control  
100mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility: St. Paul Terrace Court, MN

Sodium Hydroxide  
Trade Designation  
Product Function  
Max Use

Caustic Soda 25%  
Corrosion & Scale Control  
200mg/L

Caustic Soda 30%  
Corrosion & Scale Control  
165mg/L

Caustic Soda 50%  
Corrosion & Scale Control  
100mg/L

NaOH 25%  
Corrosion & Scale Control  
200mg/L

NaOH 30%  
Corrosion & Scale Control  
165mg/L
### Facility: Distribution Center - Omaha, NE

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Caustic Soda 30%</td>
<td>pH Adjustment</td>
<td>165mg/L</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

### Facility: Distribution Center - Carteret, NJ

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Caustic Soda 15%</td>
<td>pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td></td>
<td>Caustic Soda 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
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<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
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<tbody>
<tr>
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<tr>
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</tr>
<tr>
<td>50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

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**Facility**: Distribution Terminal - Albuquerque, NM

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<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

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**Facility**: Geneva, NY

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<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
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<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<tr>
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<td></td>
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<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<tr>
<td>pH Adjustment</td>
<td></td>
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NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Charlotte, NC

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<tr>
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<th>Product Function</th>
<th>Max Use</th>
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</thead>
<tbody>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 32%</td>
<td>Corrosion Control</td>
<td>156mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Caustic Soda 50%  
Corrosion Control  
pH Adjustment  
100 mg/L  
Sodium Hydroxide 25%  
Corrosion Control  
pH Adjustment  
200 mg/L  
Sodium Hydroxide 32%  
Corrosion Control  
pH Adjustment  
156 mg/L  
Sodium Hydroxide 50%  
Corrosion Control  
pH Adjustment  
100 mg/L  

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Wilmington, NC

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### Sodium Hydroxide

**Trade Designation**

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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</thead>
<tbody>
<tr>
<td>Caustic Soda 15%</td>
<td>pH Adjustment</td>
<td>333 mg/L</td>
</tr>
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<td>Caustic Soda 20%</td>
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<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100 mg/L</td>
</tr>
</tbody>
</table>

**Facility**: Distribution Center - Grand Forks, ND

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### Sodium Hydroxide

**Trade Designation**

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<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
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<tbody>
<tr>
<td>Caustic Soda 50%</td>
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<td>100 mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100 mg/L</td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Distribution Center - Cincinnati, OH
Sodium Hydroxide

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 10%</td>
<td>Corrosion &amp; Scale Control</td>
<td>500mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 12.5%</td>
<td>Corrosion &amp; Scale Control</td>
<td>400mg/L</td>
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<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 20%</td>
<td>Corrosion &amp; Scale Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td>Corrosion &amp; Scale Control</td>
<td>165mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 35%</td>
<td>Corrosion &amp; Scale Control</td>
<td>143mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
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Facility: Distribution Center - Walbridge, OH

Sodium Hydroxide

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility: Portland, OR
### Facility: Altoona, PA

#### Sodium Hydroxide

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<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Caustic Soda 10%</td>
<td>Corrosion &amp; Scale Control</td>
<td>500mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
<td>Corrosion &amp; Scale Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 35%</td>
<td>Corrosion &amp; Scale Control</td>
<td>143mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
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</table>

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### Facility: Bunola, PA

#### Sodium Hydroxide

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<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Caustic Soda 10%</td>
<td>Corrosion &amp; Scale Control</td>
<td>500mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
<td>Corrosion &amp; Scale Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td>Corrosion &amp; Scale Control</td>
<td>165mg/L</td>
</tr>
<tr>
<td>Caustic Soda 35%</td>
<td>Corrosion &amp; Scale Control</td>
<td>143mg/L</td>
</tr>
<tr>
<td>Caustic Soda 40%</td>
<td>Corrosion &amp; Scale Control</td>
<td>125mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Distribution Center - Morrisville Steel Road, PA

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<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
<td><strong>Product Function</strong></td>
<td><strong>Max Use</strong></td>
</tr>
<tr>
<td>Caustic Soda 15%</td>
<td>pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Caustic Soda 19%</td>
<td>pH Adjustment</td>
<td>263mg/L</td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
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<td>250mg/L</td>
</tr>
<tr>
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<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td>pH Adjustment</td>
<td>165mg/L</td>
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<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
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</table>

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**Facility**: Distribution Center - Philadelphia, PA

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
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<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
<td><strong>Product Function</strong></td>
<td><strong>Max Use</strong></td>
</tr>
<tr>
<td>Caustic Soda 15%</td>
<td>pH Adjustment</td>
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<tr>
<td>Caustic Soda 18%</td>
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<td>277mg/L</td>
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<tr>
<td>Caustic Soda 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
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<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td>pH Adjustment</td>
<td>165mg/L</td>
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<tr>
<td>Caustic Soda 32%</td>
<td>pH Adjustment</td>
<td>156mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 15%</td>
<td>pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 18%</td>
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<td>277mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 30%</td>
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<tr>
<td>Sodium Hydroxide 32%</td>
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<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
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**Facility**: Middletown, PA

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 10%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>500mg/L</td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 35%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>143mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Caustic Soda 7%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>700mg/L</td>
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<tr>
<td>Sodium Hydroxide 10%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>500mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 35%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>143mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 7%</td>
<td>Corrosion &amp; Scale Control</td>
<td>pH Adjustment</td>
<td>700mg/L</td>
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</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.
**Facility**: Morrisville, PA

**Sodium Hydroxide**

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
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<tbody>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

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**Facility**: Providence, RI

**Sodium Hydroxide**

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Caustic Soda 10% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>500mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 25% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 35% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>143mg/L</td>
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<td></td>
<td>pH Adjustment</td>
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<tr>
<td>Caustic Soda 50% Solution</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<td>pH Adjustment</td>
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**Facility**: Spartanburg, SC

**Sodium Hydroxide**

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 20%</td>
<td>Corrosion Control</td>
<td>250 mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion Control</td>
<td>200 mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 32%</td>
<td>Corrosion Control</td>
<td>156mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
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</tbody>
</table>
Caustic Soda 50%  Corrosion Control  100 mg/L
Sodium Hydroxide 20%  Corrosion Control  250 mg/L
Sodium Hydroxide 25%  Corrosion Control  200 mg/L
Sodium Hydroxide 30-49%  Corrosion Control  100mg/L
Sodium Hydroxide 32%  Corrosion Control  156mg/L
Sodium Hydroxide 50%  Corrosion Control  100 mg/L
Weak Caustic  Corrosion Control  100mg/L

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**Facility**: Chattanooga, TN

<table>
<thead>
<tr>
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<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Caustic Soda 20%</td>
<td>pH Adjustment</td>
<td></td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td></td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td></td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>pH Adjustment</td>
<td>Corrosion &amp; Scale Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>pH Adjustment</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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</table>

**Facility**: Memphis, TN

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Caustic Soda 20%</td>
<td>pH Adjustment</td>
<td></td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td></td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td></td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>pH Adjustment</td>
<td>Corrosion &amp; Scale Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>pH Adjustment</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>
Caustic Soda 20%  pH Adjustment  250mg/L
Caustic Soda 25%  pH Adjustment  200mg/L
Caustic Soda 50%  pH Adjustment  100mg/L
Sodium Hydroxide 20%  pH Adjustment  250mg/L
Sodium Hydroxide 25%  pH Adjustment  200mg/L
Sodium Hydroxide 50%  pH Adjustment  100mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility: Borger, TX

Sodium Hydroxide

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<th>Trade Designation</th>
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</tr>
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<tbody>
<tr>
<td>Caustic Soda 25%</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<td></td>
<td>pH Adjustment</td>
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<tr>
<td>Sodium Hydroxide 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<tr>
<td></td>
<td>pH Adjustment</td>
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Facility: Distribution Center - Houston, TX

Sodium Hydroxide

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<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
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<tbody>
<tr>
<td>Caustic Soda - 25%</td>
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<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda - 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
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<tr>
<td>Caustic Soda 20%</td>
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<tr>
<td></td>
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<td>Corrosion &amp; Scale Control</td>
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<td>pH Adjustment</td>
<td>100mg/L</td>
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<td></td>
<td>Corrosion &amp; Scale Control</td>
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<td>pH Adjustment</td>
<td>200mg/L</td>
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<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
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<td>Sodium Hydroxide - 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
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<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 27%</td>
<td>pH Adjustment</td>
<td>185mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
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<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Distribution Center - Odessa, TX

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trade Designation</strong></td>
<td><strong>Product Function</strong></td>
<td><strong>Max Use</strong></td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
<td>pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
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</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
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</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
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<td>Sodium Hydroxide 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td></td>
<td>Corrosion &amp; Scale Control</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Salt Lake City, UT
Sodium Hydroxide

**Trade Designation**

<table>
<thead>
<tr>
<th>Caustic Soda 25%</th>
<th>pH Adjustment</th>
<th>200mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 30%</td>
<td>pH Adjustment</td>
<td>165mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

**Product Function**

**Max Use**

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Chester, VA

Sodium Hydroxide

**Trade Designation**

<table>
<thead>
<tr>
<th>Caustic Soda 25%</th>
<th>pH Adjustment</th>
<th>200mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 32%</td>
<td>pH Adjustment</td>
<td>156mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 32%</td>
<td>pH Adjustment</td>
<td>156mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>pH Adjustment</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

**Product Function**

**Max Use**

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Newport News, VA

Sodium Hydroxide

**Trade Designation**

<table>
<thead>
<tr>
<th>Caustic Soda 20%</th>
<th>pH Adjustment</th>
<th>250mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td>200mg/L</td>
</tr>
</tbody>
</table>

**Product Function**

**Max Use**

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.
Caustic Soda 32% | Corrosion & Scale Control | 156mg/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 32% | Corrosion & Scale Control | 156mg/L  
Sodium Hydroxide 50% | Corrosion & Scale Control | 100mg/L  

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Distribution Center - Vancouver, WA

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
</tr>
<tr>
<td>Caustic Soda 15%</td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
</tr>
<tr>
<td>Sodium Hydroxide 15%</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
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<tr>
<td>Sodium Hydroxide 30%</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

**Facility**: Distribution Center – Spokane, WA

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
</tr>
<tr>
<td>Caustic Soda - 25%</td>
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</tbody>
</table>

Corrosion & Scale Control
<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
<td><strong>Product Function</strong></td>
</tr>
<tr>
<td>Caustic Soda 15%</td>
<td>Corrosion &amp; Scale Control</td>
</tr>
<tr>
<td>Caustic Soda 20%</td>
<td>Corrosion &amp; Scale Control</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
</tr>
<tr>
<td>Caustic Soda 30%</td>
<td>Corrosion &amp; Scale Control</td>
</tr>
<tr>
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<td>Corrosion &amp; Scale Control</td>
</tr>
<tr>
<td>Caustic Soda 35%</td>
<td>Corrosion &amp; Scale Control</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
</tr>
</tbody>
</table>

**Facility**: Kent, WA

**Facility**: Cincinnati Dues Drive, OH
| Facility: Dallas Bekay Street, TX |

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 20%</td>
<td>Corrosion Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>Corrosion Control</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 25%</td>
<td>Corrosion Control</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion Control</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

| Facility: Houston, TX |

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 20%</td>
<td>Corrosion &amp; Scale Control</td>
<td>250 mg/L</td>
</tr>
<tr>
<td>Caustic Soda 25%</td>
<td>Corrosion &amp; Scale Control</td>
<td>200 mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100 mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
<td>Corrosion &amp; Scale Control</td>
<td>250 mg/L</td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.
Sodium Hydroxide 25%
Corrosion & Scale Control
pH Adjustment
200 mg/L

Sodium Hydroxide 50%
Corrosion & Scale Control
pH Adjustment
100 mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility: Phoenix 45th Avenue, AZ

Sodium Hydroxide

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 25%</td>
<td>pH Adjustment</td>
<td>200 mg/L</td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>pH Adjustment</td>
<td>100 mg/L</td>
</tr>
</tbody>
</table>

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

---

Univar Solutions USA Inc. DBA Univar USA Inc.
17425 Northeast Union Hill Road
Redmond, WA 98052
United States
425-889-3400

Facility: # 18 USA

Sodium Hydroxide

<table>
<thead>
<tr>
<th>Trade Designation</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda 32%</td>
<td>Corrosion &amp; Scale Control</td>
<td>156 mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 50%</td>
<td>Corrosion &amp; Scale Control</td>
<td>100 mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide 32%</td>
<td>Corrosion &amp; Scale Control</td>
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<td></td>
<td></td>
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<td>100 mg/L</td>
</tr>
<tr>
<td>pH Adjustment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Univar USA Inc.  
17411 Northeast Union Hill Road  
Redmond, WA 98052  
United States  
425-889-3400

**Facility**: # 26 Pittsburg, CA

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda Solution 15%</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Caustic Soda Solution 20%</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>250mg/L</td>
</tr>
<tr>
<td>Caustic Soda Solution 25%</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>200mg/L</td>
</tr>
<tr>
<td>Caustic Soda Solution 30%</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>166mg/L</td>
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<tr>
<td>Caustic Soda Solution 50%</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 15%</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>333mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 20%</td>
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<td>250mg/L</td>
</tr>
<tr>
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<td>200mg/L</td>
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<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>166mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Corrosion &amp; Scale Control pH Adjustment</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>

Number of matching Manufacturers is 5  
Number of matching Products is 522  
Processing time was 1 seconds
CERTIFICATE OF CONFORMANCE  
Sodium Hydroxide, 20% Solution - Membrane Grade  
(produced via the dilution of 50% caustic soda solution with water)  
IMTT TANK 20013  
Richmond, CA

Customer: ___________________________  
Order Number: ________________________  
Date of Delivery: _________________  
Shipper ID: _________________________

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (NaOH)</td>
<td>Wt. %</td>
<td>20.00</td>
</tr>
<tr>
<td>Sodium Oxide (Na₂O)</td>
<td>Wt. %</td>
<td>15.50</td>
</tr>
<tr>
<td>Sodium Chloride (NaCl)</td>
<td>PPM</td>
<td>20</td>
</tr>
<tr>
<td>Sodium Carbonate (Na₂CO₃)</td>
<td>Wt. %</td>
<td>0.03</td>
</tr>
<tr>
<td>Sodium Chlorate (NaClO₃)</td>
<td>PPM</td>
<td>11</td>
</tr>
<tr>
<td>Sodium Sulfate (Na₂SO₄)</td>
<td>PPM</td>
<td>18</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>PPM</td>
<td>0.1</td>
</tr>
<tr>
<td>Nickel (Ni)</td>
<td>PPM</td>
<td>0.1</td>
</tr>
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<td>Color / Appearance</td>
<td></td>
<td>Clear &amp; Bright</td>
</tr>
<tr>
<td>Specific Gravity @ 60/60</td>
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<td>1.223</td>
</tr>
</tbody>
</table>

¹ Impurity levels are calculated based on the levels in the 50% source material

Effective Date: 12/1/2023  
Replaces: 10/10/2023

Testing Company: Intertek  
Survey Number: US410-0021721  
Shipment Information: Argent Gerber V.2307  
Lot Number: 4526544181/BatchNo.B526544181  
Manufacturer: FPC Taiwan  
(Last Receipt)  
**Date of Manufacture: 10/21/2023

Prepared by: _______________________

Approved by: _______________________

ANSI/NSF Standard 60  
Drinking Water Treatment Additives 72SN  
Maximum Use Level: 100 mg/L (50% Sodium Hydroxide)  
Maximum Use Level: 250 mg/L (20% Sodium Hydroxide)  
This product is Kosher certified

**Date of Manufacture is indicative only as Caustic Soda Production is a continuous cycle and an actual manufacture date cannot be specifically represented. This date is when the product was loaded at the producer’s plant. Actual production date is estimated to be within one month prior to this date.

Consult the SDS for additional information.  
All information is based on data obtained from the manufacturer or other recognized technical sources. The information is believed to be accurate. Univar Solutions Inc. ("Univar") makes no representation or warranty, express, or implied, concerning the accuracy or sufficiency of the information. Univar is not liable for any damages resulting from the use or non-use of the information. All transactions involving this Product are subject to Univar’s standard Terms and Conditions, available at www.univarsolutions.com or upon request. Univar makes no additional representations or warranties, express or implied, as to the Product.
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: CAUSTIC SODA 20%
Manufacturer or supplier's details:
Company: Univar Solutions USA
Address: 3075 Highland Pkwy Suite 200
                 Downers Grove, IL 60515
                 United States of America (USA)
Emergency telephone number:
Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887
Additional Information:
Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Corrosive to metals: Category 1
Skin corrosion: Category 1A
Serious eye damage: Category 1

GHS label elements
Hazard pictograms:

Signal word: Danger
Hazard statements:
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 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.
Center/ doctor.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

**Storage:**
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

**Disposal:**
P501 Dispose of contents/container to an approved waste disposal plant.

**Other hazards**
None known.

---

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

**Substance / Mixture:** Mixture

**Hazardous components**

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical name</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>20 - 30</td>
</tr>
</tbody>
</table>

Actual concentration is withheld as a trade secret
Any Concentration shown as a range is due to batch variation.

---

**SECTION 4. FIRST AID MEASURES**

**General advice:**
Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled:
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact:
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact:
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed:
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: High volume water jet

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: No hazardous combustion products are known

Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Advice on safe handling: Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and
kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>C</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 mg/m³</td>
<td>CAL PEL</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection: Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid
Colour: No data available
Odour: No data available
Odour Threshold: No data available
pH: No data available
SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable under recommended storage conditions.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: No decomposition if stored and applied as directed.
Conditions to avoid: Exposure to moisture, temperature extremes.
Incompatible materials: Acids, Halogenated compounds, Metals, organic nitro compounds, Zinc.

SECTION 11. TOXICOLOGICAL INFORMATION

Skin corrosion/irritation

Components:
1310-73-2:
Species: Rabbit
Result: Causes severe burns.

Serious eye damage/eye irritation

Components:
1310-73-2:
Species: Rabbit
Result: Risk of serious damage to eyes.

Carcinogenicity
IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects

Product:
Ozone-Depletion Potential: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Safety Data Sheet
CAUSTIC SODA 20%

Version 1.6 Revision Date: 01/19/2024

Waste from residues: Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni- var Solutions ChemCare: 1-800-637-7922

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation): UN1824, Sodium hydroxide solution, 8, II

IATA (International Air Transport Association): UN1824, Sodium hydroxide solution, 8, II

IMDG (International Maritime Dangerous Goods): UN1824, SODIUM HYDROXIDE SOLUTION, 8, II, Flash Point:> 101 °C(> 214 °F)

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>1000</td>
<td>4901</td>
</tr>
</tbody>
</table>

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards
- Corrosive to metals
- Skin corrosion or irritation
- Serious eye damage or eye irritation

SARA 302
- This material does not contain any components with a section 302 EHS TPQ.

SARA 313
- This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**
The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A:
- 1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. Clean Water Act, Section 311, Table 117.3:
- 1310-73-2 Sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**Massachusetts Right To Know**
- 1310-73-2 Sodium hydroxide

**Pennsylvania Right To Know**
- 7732-18-5 Water
- 1310-73-2 Sodium hydroxide

**California Prop 65**
- This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:
- **TSCA**: On the inventory, or in compliance with the inventory
- **DSL**: On the inventory, or in compliance with the inventory
- **AICS**: On the inventory, or in compliance with the inventory
- **ENCS**: On the inventory, or in compliance with the inventory
- **KECI**: On the inventory, or in compliance with the inventory
- **PICCS**: On the inventory, or in compliance with the inventory
- **IECSC**: On the inventory, or in compliance with the inventory
The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661)
SDSNA@univarsolutions.com.

Revision Date : 01/19/2024

Material number:
16212545, 16193365, 16191666, 16191667, 16170017, 16188968, 16188877, 16188855, 16160839, 16158959, 16168217, 16170945, 16164464, 16164324, 16164313, 16164738, 16165687, 16154002, 16156319, 16172347, 16153870, 1615538, 1616020, 16160324, 16160497, 16160524, 16160524, 16164738, 16156319, 16172347, 16153870, 1615538, 1616020, 16160324, 16160497, 16155178, 16146333, 16147878, 16154226, 16145944, 16153005, 16152704, 16145241, 16146002, 16147845, 16143381, 16143388, 16141133, 16142306, 16141295, 16133683, 542058, 69095, 86948, 70679, 87290, 21980

Key or legend to abbreviations and acronyms used in the safety data sheet

<table>
<thead>
<tr>
<th>Key or legend to abbreviations and acronyms used in the safety data sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
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<tr>
<td>LD50</td>
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<tr>
<td>AICS</td>
</tr>
<tr>
<td>LOAEL</td>
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<tr>
<td>DSL</td>
</tr>
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<td>NFPA</td>
</tr>
<tr>
<td>NDSL</td>
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<td>NIOSH</td>
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<td>CNS</td>
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<td>NTP</td>
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<td>CAS</td>
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<tr>
<td>NZIoC</td>
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<tr>
<td>EC50</td>
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<tr>
<td>NOAEL</td>
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<td>EC50 50%</td>
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<tr>
<td>NOEC</td>
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<tr>
<td>EGEST</td>
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<td>OSHA</td>
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SDS Number: 100000017395 9 / 10  CAUSTIC SODA 20%
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
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<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
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<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
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<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
<td>TLV</td>
<td>Threshold Limit Value</td>
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<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
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<td>&lt;=</td>
<td>Less Than or Equal To</td>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
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<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
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</tbody>
</table>
CERTIFICATE OF CONFORMANCE
Caustic Soda 25% - Membrane Grade
(produced via the dilution of 50% caustic soda solution with water)

IMTT TANK 20013
Richmond, CA

Customer: ____________ Order Number: ____________

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (NaOH)</td>
<td>Wt. %</td>
<td>25.00</td>
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<tr>
<td>Sodium Oxide (Na₂O)</td>
<td>Wt. %</td>
<td>19.37</td>
</tr>
<tr>
<td>Sodium Chloride (NaCl)</td>
<td>PPM</td>
<td>24</td>
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<tr>
<td>Sodium Carbonate (Na₂CO₃)</td>
<td>Wt. %</td>
<td>0.03</td>
</tr>
<tr>
<td>Sodium Chlorate (NaClO₃)</td>
<td>PPM</td>
<td>13</td>
</tr>
<tr>
<td>Sodium Sulfate (Na₂SO₄)</td>
<td>PPM</td>
<td>23</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>PPM</td>
<td>0.1</td>
</tr>
<tr>
<td>Nickel (Ni)</td>
<td>PPM</td>
<td>0.1</td>
</tr>
<tr>
<td>Color / Appearance</td>
<td></td>
<td>Clear &amp; Bright</td>
</tr>
<tr>
<td>Specific Gravity @ 60/60</td>
<td></td>
<td>1.279</td>
</tr>
</tbody>
</table>

1 Impurity levels are calculated based on the levels in the 50% source material

Effective Date: 12/1/2023
Replaces: 10/10/2023

Testing Company: Intertek
Survey Number: US410-0021721
Shipment Information: Argent Gerber V 2307
Lot Number: 4526544181/BatchNo B526544181
Manufacturer: FPC Taiwan
(Last Receipt)

Prepared by: __________________________
Approved by: __________________________

ANSI/NSF Standard 60
Drinking Water Treatment Additives 72SN
Maximum Use Level: 100 mg/L (50% Sodium Hydroxide)
Maximum Use Level: 165 mg/L (30% Sodium Hydroxide)
Maximum Use Level: 200 mg/L (25% Sodium Hydroxide)
Maximum Use Level: 250 mg/L (20% Sodium Hydroxide)
Maximum Use Level: 333 mg/L (15% Sodium Hydroxide)
This product is Kosher certified

**This product meets the test requirements of the Food Chemicals Codex (FCC), latest edition monograph**

Consult the SDS for additional information.
All information is based on data obtained from the manufacturer or other recognized technical sources. The information is believed to be accurate. Univar Solutions Inc. ("Univar") makes no representation or warranty, express or implied, concerning the accuracy or sufficiency of the information. Univar is not liable for any damages resulting from the use or non-use of the information. All transactions involving this Product are subject to Univar’s standard Terms and Conditions, available at www.univarsolutions.com or upon request. Univar makes no additional representations or warranties, express or implied, as to the Product.
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : CAUSTIC SODA 25%

Recommended use of the chemical and restrictions on use
Recommended use : Reserved for industrial and professional use.
Restrictions on use : None known.

Manufacturer or supplier's details
Company : Univar Solutions USA
Address : 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)

Emergency telephone number:
Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: 
Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Corrosive to metals : Category 1
Skin corrosion : Category 1A
Serious eye damage : Category 1

GHS label elements
Hazard pictograms : 

Signal word : Danger

Hazard statements : H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statements : Prevention:
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON...
Safety Data Sheet
CAUSTIC SODA 25%

Version 1.10 Revision Date: 01/10/2024

Center/ doctor.
P305 + P351 + P338 + P310 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.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

Storage:
P405 Store locked up.
P406 Store in corrosion resistant container with a corrosion resistant liner.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Hazardous components

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical name</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>20 - 30</td>
</tr>
</tbody>
</table>

Actual concentration is withheld as a trade secret
Any Concentration shown as a range is due to batch variation.

Synonyms: Sodium Hydroxide,

SECTION 4. FIRST AID MEASURES

General advice: Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled:
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact:
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact:
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
Take victim immediately to hospital.

If swallowed:
- Keep respiratory tract clear.
- Do not induce vomiting without medical advice.
- Do not give milk or alcoholic beverages.
- Never give anything by mouth to an unconscious person.
- If symptoms persist, call a physician.
- Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitalbe extinguishing media:
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitalbe extinguishing media:
- High volume water jet

Specific hazards during fire-fighting:
- Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products:
- No hazardous combustion products are known

Further information:
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters:
- Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Use personal protective equipment.

Environmental precautions:
- Prevent product from entering drains.
- Prevent further leakage or spillage if safe to do so.
- If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up:
- Neutralise with acid.
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion:
- Normal measures for preventive fire protection.

Advice on safe handling:
- Do not breathe vapours/dust.
- Avoid contact with skin and eyes.
- For personal protection see section 8.
- Smoking, eating and drinking should be prohibited in the ap-
Conditions for safe storage:
- Keep container tightly closed in a dry and well-ventilated place.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Observe label precautions.
- Electrical installations / working materials must comply with the technological safety standards.

Recommended storage temperature: > 10 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>C</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>2 mg/m³</td>
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<tr>
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<td>C</td>
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<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>CAL PEL</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water
- Tightly fitting safety goggles
- Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection: Impervious clothing
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using do not eat or drink.
- When using do not smoke.
- Wash hands before breaks and at the end of workday.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : colourless
Odour : odourless
Odour Threshold : No data available
pH : 14 @ 20 - 25 °C (68 - 77 °F)
Freezing Point (Freezing Point) : -18 °C (-0.40 °F)
Boiling Point : No data available
Flash point : 94 °C (201 °F)
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper explosion limit : No data available
Evaporation rate : No data available
Lower explosion limit : No data available
Vapour pressure : No data available
Relative vapour density : No data available
Relative density : 1.27 - 1.28 @ 20 - 25 °C (68 - 77 °F)
Reference substance: (water = 1)
Density : No data available
Water solubility : No data available
Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : No data available
Thermal decomposition : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No decomposition if stored and applied as directed.
Conditions to avoid : Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials : Acids
: Halogenated compounds
: Metals
: organic nitro compounds
: Zinc
SECTION 11. TOXICOLOGICAL INFORMATION

Skin corrosion/irritation

Components:
1310-73-2:
Species: Rabbit
Result: Causes severe burns.

Serious eye damage/eye irritation

Components:
1310-73-2:
Species: Rabbit
Result: Risk of serious damage to eyes.

Carcinogenicity

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available
Other adverse effects

**Product:**
- **Ozone-Depletion Potential:**
  - Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
  - Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

**Additional ecological information:**
- No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**
- **Waste from residues:**
  - Dispose of in accordance with all applicable local, state and federal regulations.
  - For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni-var Solutions ChemCare: 1-800-637-7922

- **Contaminated packaging:**
  - Empty remaining contents.
  - Dispose of as unused product.
  - Do not re-use empty containers.

## SECTION 14. TRANSPORT INFORMATION

**DOT (Department of Transportation):**
- UN1824, Sodium hydroxide solution, 8, II

**IATA (International Air Transport Association):**
- UN1824, Sodium hydroxide solution, 8, II

**IMDG (International Maritime Dangerous Goods):**
- UN1824, SODIUM HYDROXIDE SOLUTION, 8, II, Flash Point: 94 °C (201 °F)

## SECTION 15. REGULATORY INFORMATION

**EPCRA - Emergency Planning and Community Right-to-Know Act**

### CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
</table>

**SDS Number:** 100000038904
Sodium hydroxide | 1310-73-2 | 1000 | 3921 |

### SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

### SARA 311/312 Hazards
- Corrosive to metals
- Skin corrosion or irritation
- Serious eye damage or eye irritation

### SARA 302
- This material does not contain any components with a section 302 EHS TPQ.

### SARA 313
- This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

### Clean Water Act
The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:
- 1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:
- 1310-73-2 Sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

### Massachusetts Right To Know
- 1310-73-2 Sodium hydroxide

### Pennsylvania Right To Know
- 7732-18-5 Water
- 1310-73-2 Sodium hydroxide

### California Prop 65
- This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### The components of this product are reported in the following inventories:
- **TSCA**: Listed on TSCA
- **DSL**: All components of this product are on the Canadian DSL
- **AICS**: On the inventory, or in compliance with the inventory
- **NZIoC**: On the inventory, or in compliance with the inventory
- **ENCS**: Not in compliance with the inventory
- **KECI**: On the inventory, or in compliance with the inventory
The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 01/10/2024

Material number:
16212546, 16212036, 16209256, 16197210, 16206616, 16206171, 16181533, 16192173, 16192016, 16132255, 16158399, 16146684, 16182270, 16148128, 16162026, 16188797, 16145004, 16188640, 16163721, 16162553, 16147855, 16151729, 16147016, 16002081, 16002153, 16163814, 16181444, 16175654, 16175444, 16175415, 16174721, 16176744, 16170086, 16169860, 16169683, 16146335, 16146334, 16143884, 16145401, 16145323, 16145233, 16145243, 16145242, 16125921, 16116103, 16113730, 755848, 650799, 546389, 70561, 53072, 574261, 53570, 16150734, 16149350, 16149457, 16144981, 16145777, 16147137, 16163653, 102698, 16160832, 16137556, 16137474, 16137324, 16152197, 16158393, 16152426, 16144481, 16147885, 16159715, 16143521, 16160487, 16160771, 16160572, 16160486, 16147888, 16147884, 16147854, 16147799, 16148872, 16144724, 16144461, 16148802, 16152705, 16136108, 16135793, 16135298, 16143511, 16143409, 16143472, 16143461, 16143389, 16142429, 16140693
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<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
</tr>
<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration 50%</td>
</tr>
<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
</tr>
<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
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<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
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<tr>
<td>&lt;=</td>
<td>Less Than or Equal To</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
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<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
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<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
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<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
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<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
</tbody>
</table>
DATE: 02/06/2024

PRODUCT: Caustic Soda 30%

PRODUCT GRADE: NSF MEMBRANE

UNIVAR SOLUTIONS PRODUCT CODE: 16147859

UNIVAR SOLUTIONS LOT NUMBER: 0840P00066

<table>
<thead>
<tr>
<th>TEST</th>
<th>RESULTS</th>
<th>SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assay, NaOH</td>
<td>30.00%</td>
<td>29.0%-31.0%</td>
</tr>
<tr>
<td>Assay, Na₂O</td>
<td>23.48%</td>
<td>22.45%-24.05%</td>
</tr>
<tr>
<td>Assay, Na₂CO₃</td>
<td>0.53%</td>
<td>1.0% max</td>
</tr>
<tr>
<td>Specific Gravity @15.6°C</td>
<td>1.343</td>
<td>1.321-1.343</td>
</tr>
<tr>
<td>pH</td>
<td>12.869</td>
<td>12.0-14.0</td>
</tr>
<tr>
<td>Visual</td>
<td>Pass</td>
<td>Clear/Clean Free of suspended particles</td>
</tr>
</tbody>
</table>

Univar Solutions

Omar Nayfeh

Lab Technician

Note:

Please consult the SDS for further information.
Univar Solutions represents only that the Product shall meet the specifications herein. All transactions involving this Product are subject to Univar Solutions’ standard Terms and Conditions, available at www.univarsolutions.com or upon request. Univar Solutions makes no additional representations or warranties, express or implied, as to the Product.
CERTIFICATE OF CONFORMANCE
Caustic Soda 30% - Membrane Grade
(produced via the dilution of 50% caustic soda solution with water)

IMTT TANK 20013
Richmond, CA

Customer: ____________________________  Date of Delivery: _________________
Order Number: ________________________  Shipper ID: ________________________

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Result 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (NaOH)</td>
<td>Wt. %</td>
<td>30.00</td>
</tr>
<tr>
<td>Sodium Oxide (Na₂O)</td>
<td>Wt. %</td>
<td>23.24</td>
</tr>
<tr>
<td>Sodium Chloride (NaCl)</td>
<td>PPM</td>
<td>29</td>
</tr>
<tr>
<td>Sodium Carbonate (Na₂CO₃)</td>
<td>Wt. %</td>
<td>0.04</td>
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<tr>
<td>Sodium Chlorate (NaClO₃)</td>
<td>PPM</td>
<td>16</td>
</tr>
<tr>
<td>Sodium Sulfate (Na₂SO₄)</td>
<td>PPM</td>
<td>27</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>PPM</td>
<td>0.1</td>
</tr>
<tr>
<td>Nickel (Ni)</td>
<td>PPM</td>
<td>0.1</td>
</tr>
<tr>
<td>Color / Appearance</td>
<td></td>
<td>Clear &amp; Bright</td>
</tr>
<tr>
<td>Specific Gravity @ 60/60</td>
<td></td>
<td>1.333</td>
</tr>
</tbody>
</table>

1 Impurity levels are calculated based on the levels in the 50% source material

Effective Date: 12/1/2023
Replaces: 10/10/2023

Testing Company: Intertek
Survey Number: US410-0021721
Shipment Information: Argent Gerber V.2307
Lot Number: 4526544181/BatchNo.B526544181
Manufacturer: FPC Taiwan
(Last Receipt)
**Date of Manufacture: 10/21/2023

Prepared by: ____________________________
Approved by: ____________________________

ANSI/NSF Standard 60
Drinking Water Treatment Additives 72SN
Maximum Use Level: 100 mg/L (50% Sodium Hydroxide)
Maximum Use Level: 165 mg/L (30% Sodium Hydroxide)
This product is Kosher certified

**Date of Manufacture is indicative only as Caustic Soda Production is a continuous cycle and an actual manufacture date cannot be specifically represented. This date is when the product was loaded at the producer's plant. Actual production date is estimated to be within one month prior to this date.

Consult the SDS for additional information.
All information is based on data obtained from the manufacturer or other recognized technical sources. The information is believed to be accurate. Univar Solutions Inc. ("Univar") makes no representation or warranty, express, or implied, concerning the accuracy or sufficiency of the information. Univar is not liable for any damages resulting from the use or non-use of the information. All transactions involving this Product are subject to Univar's Standard Terms and Conditions, available at www.univarsolutions.com or upon request. Univar makes no additional representations or warranties, express or implied, as to the Product.
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: CAUSTIC SODA 30%

Recommended use of the chemical and restrictions on use
Recommended use: Reserved for industrial and professional use.

Manufacturer or supplier's details
Company: Univar Solutions USA
Address: 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)

Emergency telephone number:
Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information:
Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Corrosive to metals: Category 1
Skin corrosion: Category 1A
Serious eye damage: Category 1

GHS label elements
Hazard pictograms:

Signal word: Danger

Hazard statements: H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statements: Prevention:
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
Section 2. Safety Precautions

P305 + P351 + P338 + P310 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.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

Storage:
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards
None known.

Section 3. Composition/Information on Ingredients

Substance / Mixture: Mixture

Hazardous components

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical name</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>30 - 50</td>
</tr>
</tbody>
</table>

Actual concentration is withheld as a trade secret
Any Concentration shown as a range is due to batch variation.

Section 4. First Aid Measures

General advice: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

If inhaled: If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact: Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. Take victim immediately to hospital.

If swallowed: Keep respiratory tract clear.
Do not induce vomiting without medical advice. 
Do not give milk or alcoholic beverages. 
Never give anything by mouth to an unconscious person. 
If symptoms persist, call a physician. 
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:

Specific hazards during fire-fighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: No hazardous combustion products are known

Further information:
Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Environmental precautions:
Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up:
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Advice on safe handling:
Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.

SDS Number: 100000038900
Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Recommended storage temperature: > 16 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
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<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>C</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>CAL PEL</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water

Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection: Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using do not eat or drink.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
### Appearance
- **Appearance**: Liquid

### Colour
- **Colour**: No data available

### Odour
- **Odour**: No data available

### Odour Threshold
- **Odour Threshold**: No data available

### pH
- **pH**: No data available

### Freezing Point (Melting point/freezing point)
- **Freezing Point (Melting point/freezing point)**: > 0 °C (> 32 °F)

### Boiling Point
- **Boiling Point**: No data available

### Flash point
- **Flash point**: > 93 °C (> 199 °F)

### Evaporation rate
- **Evaporation rate**: No data available

### Flammability (solid, gas)
- **Flammability (solid, gas)**: No data available

### Upper explosion limit
- **Upper explosion limit**: No data available

### Lower explosion limit
- **Lower explosion limit**: No data available

### Vapour pressure
- **Vapour pressure**: No data available

### Relative vapour density
- **Relative vapour density**: No data available

### Relative density
- **Relative density**: 1.32 - 1.34

### Density
- **Density**: 11.10 lb/gal @ 20 °C (68 °F)

### Water solubility
- **Water solubility**: No data available

### Solubility in other solvents
- **Solubility in other solvents**: No data available

### Partition coefficient: n-octanol/water
- **Partition coefficient: n-octanol/water**: No data available

### Auto-ignition temperature
- **Auto-ignition temperature**: No data available

### Thermal decomposition
- **Thermal decomposition**: No data available

### SECTION 10. STABILITY AND REACTIVITY

**Reactivity**
- Stable under recommended storage conditions.

**Chemical stability**
- Stable under normal conditions.

**Possibility of hazardous reactions**
- No decomposition if stored and applied as directed.

**Conditions to avoid**
- Exposure to moisture
- Acids
- Halogenated compounds
- Metals
- Organic nitro compounds
- Zinc

**Incompatible materials**
- Acids
- Halogenated compounds
- Metals
- Organic nitro compounds
- Zinc

### SECTION 11. TOXICOLOGICAL INFORMATION

**Skin corrosion/irritation**

**Components:**
- **1310-73-2**:
  - **Species**: Rabbit
  - **Result**: Causes severe burns.
Serious eye damage/eye irritation

Components:

1310-73-2:
Species: Rabbit
Result: Risk of serious damage to eyes.

Carcinogenicity

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects

Product:
Ozone-Depletion Potential: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni- var Solutions ChemCare: 1-800-637-7922

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):
UN1824, Sodium hydroxide solution, 8, II

IATA (International Air Transport Association):
UN1824, Sodium hydroxide solution, 8, II

IMDG (International Maritime Dangerous Goods):
UN1824, SODIUM HYDROXIDE SOLUTION, 8, II, Flash Point: > 93 °C (> 199 °F)

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>1000</td>
<td>3236</td>
</tr>
</tbody>
</table>

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Corrosive to metals
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 302: This material does not contain any components with a section 302 EHS TPQ.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act
The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A:
1310-73-2 Sodium hydroxide
The following Hazardous Chemicals are listed under the U.S. Clean Water Act, Section 311, Table 117.3:
1310-73-2 Sodium hydroxide
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know
1310-73-2 Sodium hydroxide

Pennsylvania Right To Know
7732-18-5 Water
1310-73-2 Sodium hydroxide

California Prop 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:
TSCA: On the inventory, or in compliance with the inventory
DSL: On the inventory, or in compliance with the inventory
AICS: On the inventory, or in compliance with the inventory
NZIoC: Not in compliance with the inventory
ENCS: On the inventory, or in compliance with the inventory
KECI: On the inventory, or in compliance with the inventory
PICCS: On the inventory, or in compliance with the inventory
IECSC: On the inventory, or in compliance with the inventory
The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 01/16/2024

Legacy SDS: R0023558

Material number: 16212040, 16205048, 16204950, 16180311, 16180341, 16178366, 16176254, 16176472, 16174796, 16140662, 16151737, 16168268, 16168813, 16169789, 16164733, 16164288, 16164325, 16164319, 16158080, 16159265, 16155789, 16154356, 16153556, 16167048, 16154041, 16158234, 16153712, 16152706, 16153016, 89846, 16045900, 16045899, 16160594, 16160449, 16160687, 16160569, 16160762, 16147947, 16147859, 16147857, 16136097, 16135337, 16158563, 16158633, 16152707, 16147948, 16147789, 16145778, 16136097, 16135337, 16147861, 16142638

Key or legend to abbreviations and acronyms used in the safety data sheet

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
</tbody>
</table>

SDS Number: 100000038900
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
</tr>
<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration 50%</td>
</tr>
<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
</tr>
<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
</tr>
<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
</tr>
<tr>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less Than or Equal To</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
</tr>
</tbody>
</table>
CERTIFICATE OF CONFORMANCE
Caustic Soda 25% - Membrane Grade
produced via the dilution of 50% caustic soda solution with water
IMTT TANK 20013
Richmond, CA

Customer: 
Order Number: 

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (NaOH)</td>
<td>Wt. %</td>
<td>25.00</td>
</tr>
<tr>
<td>Sodium Oxide (Na₂O)</td>
<td>Wt. %</td>
<td>19.37</td>
</tr>
<tr>
<td>Sodium Chloride (NaCl)</td>
<td>PPM</td>
<td>24</td>
</tr>
<tr>
<td>Sodium Carbonate (Na₂CO₃)</td>
<td>Wt. %</td>
<td>0.03</td>
</tr>
<tr>
<td>Sodium Chlorate (NaClO₃)</td>
<td>PPM</td>
<td>13</td>
</tr>
<tr>
<td>Sodium Sulfate (Na₂SO₃)</td>
<td>PPM</td>
<td>23</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>PPM</td>
<td>0.1</td>
</tr>
<tr>
<td>Nickel (Ni)</td>
<td>PPM</td>
<td>0.1</td>
</tr>
<tr>
<td>Color / Appearance</td>
<td></td>
<td>Clear &amp; Bright</td>
</tr>
<tr>
<td>Specific Gravity @ 60/60</td>
<td></td>
<td>1.279</td>
</tr>
</tbody>
</table>

1 Impurity levels are calculated based on the levels in the 50% source material

Effective Date: 12/1/2023
Replaces: 10/10/2023

Testing Company: Intertek
Survey Number: US410-0021721
Shipment Information: Argent Gerber V.2307
Lot Number: 4526544181/BatchNo B526544181
Manufacturer: FPC Taiwan
(Last Receipt)

Prepared by: 
Approved by: 

ANSI/NSF Standard 60
Drinking Water Treatment Additives 72SN
Maximum Use Level: 100 mg/L (50% Sodium Hydroxide)
Maximum Use Level: 165 mg/L (30% Sodium Hydroxide)
Maximum Use Level: 200 mg/L (25% Sodium Hydroxide)
Maximum Use Level: 250 mg/L (20% Sodium Hydroxide)
Maximum Use Level: 333 mg/L (15% Sodium Hydroxide)
This product is Kosher certified

**This product meets the test requirements of the Food Chemicals Codex (FCC), latest edition monograph**

Consult the SDS for additional information.
All information is based on data obtained from the manufacturer or other recognized technical sources. The information is believed to be accurate. Univar Solutions Inc. ("Univar") makes no representation or warranty, express, or implied, concerning the accuracy or sufficiency of the information. Univar is not liable for any damages resulting from the use or non-use of the information. All transactions involving this Product are subject to Univar's standard Terms and Conditions, available at www.univarsolutions.com or upon request. Univar makes no additional representations or warranties, express or implied, as to the Product.
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : CAUSTIC SODA 25%

Recommended use of the chemical and restrictions on use
Recommended use : Reserved for industrial and professional use.
Restrictions on use : None known.

Manufacturer or supplier's details
Company : Univar Solutions USA
Address : 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)

Emergency telephone number:
Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: 
Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Corrosive to metals : Category 1
Skin corrosion : Category 1A
Serious eye damage : Category 1

GHS label elements
Hazard pictograms :

Signal word : Danger

Hazard statements : H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statements : Prevention:
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON
**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Hazardous components**

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical name</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>20 - 30</td>
</tr>
</tbody>
</table>

Actual concentration is withheld as a trade secret.
Any Concentration shown as a range is due to batch variation.

**Synonyms**: Sodium Hydroxide,

**SECTION 4. FIRST AID MEASURES**

**General advice**
- Move out of dangerous area.
- Consult a physician.
- Show this safety data sheet to the doctor in attendance.
- Do not leave the victim unattended.

**If inhaled**
- If unconscious, place in recovery position and seek medical advice.
- If symptoms persist, call a physician.

**In case of skin contact**
- Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- If on skin, rinse well with water.
- If on clothes, remove clothes.

**In case of eye contact**
- Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
- In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Continue rinsing eyes during transport to hospital.
- Remove contact lenses.
- Protect unharmed eye.
- Keep eye wide open while rinsing.
- If eye irritation persists, consult a specialist.
If swallowed

Take victim immediately to hospital.
Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: High volume water jet

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: No hazardous combustion products are known

Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Environmental precautions: Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Neutralise with acid.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Advice on safe handling: Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the ap-
Conditions for safe storage

- Keep container tightly closed in a dry and well-ventilated place.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Observe label precautions.
- Electrical installations / working materials must comply with the technological safety standards.

Recommended storage temperature

- > 10 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>C</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>CAL PEL</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection

- General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Remarks

- The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

- Eye wash bottle with pure water
- Tightly fitting safety goggles
- Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection

- Impervious clothing
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

- When using do not eat or drink.
- When using do not smoke.
- Wash hands before breaks and at the end of workday.
### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
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<tr>
<td>Colour</td>
<td>colourless</td>
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<td>Odour</td>
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<td>Odour Threshold</td>
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<tr>
<td>pH</td>
<td>14 @ 20 - 25 °C (68 - 77 °F)</td>
</tr>
<tr>
<td>Freezing Point (Freezing Point)</td>
<td>-18 °C (-0.40 °F)</td>
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<td>Boiling Point</td>
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<tr>
<td>Flash point</td>
<td>94 °C (201 °F)</td>
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<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Upper explosion limit</td>
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<tr>
<td>Lower explosion limit</td>
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<td>Vapour pressure</td>
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<tr>
<td>Relative density</td>
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<td>Density</td>
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<td>Water solubility</td>
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<td>Solubility in other solvents</td>
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<td>Partition coefficient: n-octanol/water</td>
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<tr>
<td>Auto-ignition temperature</td>
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<tr>
<td>Thermal decomposition</td>
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### SECTION 10. STABILITY AND REACTIVITY

<table>
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<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No dangerous reaction known under conditions of normal use.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Possibility of hazardous reac-</td>
<td>No decomposition if stored and applied as directed.</td>
</tr>
<tr>
<td>tions</td>
<td></td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Keep away from heat, flame, sparks and other ignition sources.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Acids</td>
</tr>
<tr>
<td></td>
<td>Halogenated compounds</td>
</tr>
<tr>
<td></td>
<td>Metals</td>
</tr>
<tr>
<td></td>
<td>organic nitro compounds</td>
</tr>
<tr>
<td></td>
<td>Zinc</td>
</tr>
</tbody>
</table>
SECTION 11. TOXICOLOGICAL INFORMATION

Skin corrosion/irritation

Components:
1310-73-2:
Species: Rabbit
Result: Causes severe burns.

Serious eye damage/eye irritation

Components:
1310-73-2:
Species: Rabbit
Result: Risk of serious damage to eyes.

Carcinogenicity

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available
Other adverse effects

Product: Ozone-Depletion Potential
Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni-var Solutions ChemCare: 1-800-637-7922

Contaminated packaging: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):
UN1824, Sodium hydroxide solution, 8, II

IATA (International Air Transport Association):
UN1824, Sodium hydroxide solution, 8, II

IMDG (International Maritime Dangerous Goods):
UN1824, SODIUM HYDROXIDE SOLUTION, 8, II, Flash Point:94 °C(201 °F)

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
</table>

SDS Number: 100000038904
Sodium hydroxide 1310-73-2 1000 3921

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards
- Corrosive to metals
- Skin corrosion or irritation
- Serious eye damage or eye irritation

SARA 302
- This material does not contain any components with a section 302 EHS TPQ.

SARA 313
- This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act
The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A:
- 1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. Clean Water Act, Section 311, Table 117.3:
- 1310-73-2 Sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know
- 1310-73-2 Sodium hydroxide

Pennsylvania Right To Know
- 7732-18-5 Water
- 1310-73-2 Sodium hydroxide

California Prop 65
- This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:
- TSCA: Listed on TSCA
- DSL: All components of this product are on the Canadian DSL
- AICS: On the inventory, or in compliance with the inventory
- NZIoC: On the inventory, or in compliance with the inventory
- ENCS: Not in compliance with the inventory
- KECI: On the inventory, or in compliance with the inventory
The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 01/10/2024

Material number:
16212546, 16212036, 16209256, 16197210, 16206616, 16206171, 16181533, 16192173, 16192016, 16132255, 16158399, 16146684, 16182270, 16148128, 16162026, 16188797, 16145004, 16186640, 16163721, 16162553, 16147855, 16151729, 16147016, 16020811, 16002153, 16163814, 16181444, 16158399, 16178437, 16176001, 16176125, 16175605, 16175364, 16163884, 16145401, 16145323, 16145243, 16145242, 16125921, 16116103, 16113730, 755848, 650799, 546389, 70561, 53072, 574261, 53570, 16146335, 16146334, 16156742, 16136108, 16135793, 16135298, 16143511, 16143409, 16143472, 16143461, 16143389, 16142429, 16140693
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tr>
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<td>Australia, Inventory of Chemical Substances</td>
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<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
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<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
</tr>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act.</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
</tbody>
</table>
CERTIFICATE OF LIABILITY INSURANCE

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

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

PRODUCER
Aon Risk Services Central, Inc.
Philadelphia PA office
100 North 18th Street
15th Floor
Philadelphia PA 19103 USA

CONTACT NAME:  PHONE: (866) 283-7122, FAX: (866) 363-0105
EMAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE NAIC #

INSURED
Univar Solutions USA Inc.
3075 Highland Parkway
Suite 200
Downers Grove IL 60515 USA

INSURER A: Illinois Union Insurance Company 27960
INSURER B: ACE American Insurance Company 22667
INSURER C: ACE Fire Underwriters Insurance Co. 20702
INSURER D: Indemnity Insurance Co of North America 43575
INSURER E:
INSURER F:

COVERAGE SCHEDULE

<table>
<thead>
<tr>
<th>TYPE OF INSURANCE</th>
<th>POLICY NUMBER</th>
<th>LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMERCIAL GENERAL LIABILITY</td>
<td>XSLG471139600</td>
<td>EACH OCCURRENCE: $3,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DAMAGE TO RENTED PREMISES ( lia occurrence): $3,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MED EXP (any one person): Excluded</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PERSONAL &amp; ADJ INJURY: $3,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GENERAL AGGREGATE: $3,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PRODUCTS- COMPOP AGG: $3,000,000</td>
</tr>
<tr>
<td>AUTOMOBILE LIABILITY</td>
<td>ISA.H10708436</td>
<td>COMBINED SINGLE LIMIT ( lia accident): $5,000,000</td>
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<tr>
<td></td>
<td></td>
<td>BODILY INJURY ( Per person):</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BODILY INJURY ( Per accident):</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PROPERTY DAMAGE (Per accident):</td>
</tr>
<tr>
<td>UMBRELLA LIABILITY</td>
<td>XCEG27380566010</td>
<td>EACH OCCURRENCE: $4,000,000</td>
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<td></td>
<td></td>
<td>AGGREGATE: $4,000,000</td>
</tr>
<tr>
<td>WORKERS COMPENSATION AND EMPLOYEES' LIABILITY</td>
<td>WRL.C70313443</td>
<td>E.L. EACH ACCIDENT: $1,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E.L. DISEASE- EA EMPLOYEE: $1,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E.L. DISEASE- POLICY LIMIT: $1,000,000</td>
</tr>
<tr>
<td>ENVIRONMENTAL SITE LIABILITY</td>
<td>PPLG7150794402D</td>
<td>Aggregate: $16,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ea Condition: $1,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SIR: $1,000,000</td>
</tr>
</tbody>
</table>

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

Evidence of Insurance.

CERTIFICATE HOLDER
Univar Solutions USA Inc.
3075 Highland Parkway
Suite 200
Downers Grove IL 60515 USA

CANCELLATION

AUTHORIZED REPRESENTATIVE
Aon Risk Services Central, Inc.

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### ADDITIONAL REMARKS

**THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM**,  
**FORM NUMBER: ACORD 25**  
**FORM TITLE: Certificate of Liability Insurance**

### INSURER(S) AFFORDING COVERAGE

<table>
<thead>
<tr>
<th>INSURER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

### ADDITIONAL POLICIES

<table>
<thead>
<tr>
<th>INSURER</th>
<th>TYPE OF INSURANCE</th>
<th>ADDL. INSURER</th>
<th>POLICY NUMBER</th>
<th>POLICY EFFECTIVE DATE (MM/DD/YYYY)</th>
<th>POLICY EXPIRATION DATE (MM/DD/YYYY)</th>
<th>LIMITS</th>
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</thead>
<tbody>
<tr>
<td>B</td>
<td>AUTOMOBILE LIABILITY</td>
<td></td>
<td>MMTH10708540</td>
<td>06/01/2023</td>
<td>06/01/2024</td>
<td>Combined Single Limit $5,000,000</td>
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<tr>
<td></td>
<td>WORKERS COMPENSATION</td>
<td></td>
<td>WCUC70313364</td>
<td>06/01/2023</td>
<td>06/01/2024</td>
<td>Excess WC-CA OH WA SIR applies per policy terms &amp; conditions</td>
</tr>
<tr>
<td></td>
<td>OTHER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Claims Made Form</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Non-Collusion Affidavit
To Be Executed By Bidder and Submitted With Bid

Washington
State of  California
County of  King

) ss.

Jennifer M. Perras, being first duly sworn, deposes and says that he or she is the
(Bidder’s Authorized Representative)

Sr. Municipal Specialist of Univar Solutions USA LLC the party making the
(Title of Representative) (Legal Name of Bidder)

foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person,
partnership, company, association, organization, or corporation; that the bid is genuine and not collusive
or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a
false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any
bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has
not in any manner, directly or indirectly, sought by agreement, communication, or conference with
anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element
of the bid price, or of that of any other bid, or to secure any advantage against the public body awarding
the contract of anyone interested in the proposed contract; that all statements contained in the bid are
true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any
breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and
will not pay, any fee to any corporation, partnership, company association, organization, bid depository,
or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the state of California that the foregoing is true and
correct.

Signature of: President, Secretary,
Manager, Owner, or Representative

Subscribe and sworn to before me this, 16th day of February, 2024

Signature of Notary Public In and For

The County of  King

State of  Washington

All Signatures Must Be Witnessed By Notary

16937994
March 18, 2024

Univar Solutions USA Inc.
Attn: Jennifer Perras
8201 S 212th St.
Kent, WA 98032

RE: Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 12-2024 for Supply and Delivery of Sodium Hydroxide 20% Sacramento; Sodium Hydroxide 25% Sacramento, Central Valley; Sodium Hydroxide 30% North Bay, Sacramento; Sodium Hydroxide 50% Central Valley, East Bay, North Bay, Sacramento regions.

Dear Ms. Perras,

We are pleased to advise you that the bid submitted by Univar Solutions USA Inc. for Bid No. 12-2024 was determined to be the lowest responsive bid for the supply and delivery of Sodium Hydroxide 20% Sacramento; Sodium Hydroxide 25% Sacramento, Central Valley; Sodium Hydroxide 30% North Bay, Sacramento; Sodium Hydroxide 50% Central Valley, East Bay, North Bay, Sacramento regions during the period July 1, 2024 through June 30, 2025.

The participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Univar Solutions USA Inc. for their respective facilities.

Bay Area Chemical Consortium sincerely appreciates your efforts and participation in the competitive bid process.

If you have any questions, please free to contact me at jdyment@bacwa.org

Sincerely,

Jennifer Dyment
Assistant Executive Director
BACWA.org
as Coordinating Agency for the Bay Area Chemical Consortium
## Bay Area Clean Water Agencies

### Bid Results for Project 12-2024 SODIUM HYDROXIDE

**Bid Due on February 22, 2024 4:00 PM (PDT)**

### REGIONAL BID AWARD

<table>
<thead>
<tr>
<th>Section</th>
<th>Marin</th>
<th>Sonoma</th>
<th>Napa</th>
<th>Sacramento</th>
<th>Central Valley</th>
<th>Peninsula</th>
<th>Sacramento</th>
<th>South Bay</th>
<th>Tri Valley</th>
<th>Marin</th>
<th>Sonoma</th>
<th>Napa</th>
<th>North Bay</th>
<th>Sacramento</th>
<th>South Bay</th>
<th>General Valley</th>
<th>East Bay</th>
<th>Marin</th>
<th>Sonoma</th>
<th>Napa</th>
<th>North Bay</th>
<th>Sacramento</th>
<th>Tri Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Univar Solutions USA LLC</strong></td>
<td>890.0800</td>
<td>881.3500</td>
<td>846.5600</td>
<td>837.0800</td>
<td>834.3300</td>
<td>874.8300</td>
<td>825.6300</td>
<td>837.7300</td>
<td>1,213.6800</td>
<td>766.0500</td>
<td>892.1800</td>
<td>2,672.3700</td>
<td>748.6100</td>
<td>678.9100</td>
<td>693.8500</td>
<td>657.0900</td>
<td>709.4400</td>
<td>672.9600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SIGNATURES

The parties have signed this Contract, effective as of the day and year first stated above.

CONTRACTOR

Under penalty of perjury, I certify that the information provided here is correct.

Signature: 
Jennifer Perras
Jennifer Perras (May 22, 2024 09:06 PDT)

Title: Sr. Municipal Bid Specialist

Additional Signature (if required): 
Shawnasey McCarthy
Shawnasey McCarthy (May 16, 2024 10:59 PDT)

Title: Municipal Commercial Manager

CITY OF SACRAMENTO

A Municipal Corporation

APPROVED AS TO FORM:

Signature: 
Michael Voss
Michael Voss (May 22, 2024 10:59 PDT)

Title: Senior Deputy City Attorney

Reviewed By:

Signature:

Title:

Approved By:

Signature:

Title:

Additional Signature (if required):

Title:
CITY OF SACRAMENTO
ADDITIONAL TERMS AND CONDITIONS
COOPERATIVE PURCHASE AGREEMENT

The City of Sacramento ("City") and Thatcher Company of California, Inc. ("Contractor"), hereby agree to these Additional Terms and Conditions ("Additional Terms"), effective July 1, 2024.

WHEREAS, Contractor is an authorized dealer for Thatcher Company of California, Inc., which entered into Contract No. PRC002848 for Sodium Bisulfite with the Bay Area Chemical Consortium (BACC), dated July 1, 2024 ("Cooperative Contract"), in which Contractor agreed to sell Sodium Bisulfite to governmental agencies that are members of BACC'S Cooperative Purchasing Program ("Participating Public Agencies"); and

WHEREAS, the City wishes to purchase Sodium Bisulfite, pursuant to the terms of the Cooperative Contract and these Additional Terms.

NOW THEREFORE, Contractor and the City agree as follows:

1. The City agrees to purchase, pursuant to the terms of the Cooperative Contract, Sodium Bisulfite as set forth in Quotation No. 11-2024.

2. The City shall have all the same rights and obligations as BACC under the Cooperative Contract. The terms of the Cooperative Contract shall apply to this purchase and shall control over any contrary terms included in the attached quotation.

3. Contractor agrees that the equipment shall be delivered to the City no later than SPECIFIED IN DELIVERY DETAILS FROM BID 11-2024.

4. Contractor warrants and represents that the person or persons executing this Agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this contract supplement and bind Contractor to the terms hereof.

5. Except as specifically modified herein, all terms and conditions of the Cooperative Contract shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by these Additional Terms.
Bay Area Clean Water Agencies
Bid Results for Project 12-2024 SODIUM BISULFITE
Bid Due on February 22, 2024 4:00 PM (PDT)
SINGLE BID AWARD

<table>
<thead>
<tr>
<th>Description</th>
<th>Sodium Bisulfite 25%</th>
<th>Sodium Bisulfite 40%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Central Valley</td>
<td>East Bay</td>
</tr>
<tr>
<td>Unit of Measure</td>
<td>gal</td>
<td>gal</td>
</tr>
<tr>
<td>JCI Jones Chemicals Inc.</td>
<td>no bid</td>
<td>no bid</td>
</tr>
<tr>
<td>Thatcher Company of California, Inc.</td>
<td>1.6400</td>
<td>1.6400</td>
</tr>
<tr>
<td>Univar Solutions USA LLC.</td>
<td>2.0450</td>
<td>2.3950</td>
</tr>
</tbody>
</table>

Sodium Bisulfite 25% Sodium Bisulfite 40%

---

Per Section 2.16 Method of Award

Bids may be awarded by the participating BACC agencies to the lowest, responsive, and responsible bidder meeting the specifications for bulk loads for the chemical. The lowest responsive bidder will be determined by multiplying the estimated annual quantity for each participating BACC agency by the bid price for their region, and adding up the aggregate costs of the participating agencies in the region. The lowest responsive award will be determined by BACC to be the low bid, assuming the bid is determined by BACC to be complete and in compliance with the bid requirements. BACC has the right to determine terms or options that the bid contract documents and reserves the right to reject any and all bids and to waive irregularities of said bids.

---

<table>
<thead>
<tr>
<th>Aggregate Cost Calculation:</th>
<th>Sodium Bisulfite 25%</th>
<th>Sodium Bisulfite 40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual quantity gal</td>
<td>130,000</td>
<td>41,800</td>
</tr>
<tr>
<td>JCI Jones Chemicals Inc.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Thatcher Company of California, Inc.</td>
<td>$213,200.00</td>
<td>$68,552.00</td>
</tr>
<tr>
<td>Univar Solutions USA LLC.</td>
<td>$265,850.00</td>
<td>$100,111.00</td>
</tr>
</tbody>
</table>

Lowest overall $3,934,500.00
Bay Area Clean Water Agencies
Bid Results for Project 11-2024 SODIUM BISULFITE
Bid Due on February 22, 2024 4:00 PM (PDT)

Addendum issued - none

SINGLE BID AWARD

<table>
<thead>
<tr>
<th>Thacher Company of California, Inc.</th>
<th>Univar Solutions USA LLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACC RECOMMENDATION</td>
<td>Lowest responsive responsible bidder</td>
</tr>
</tbody>
</table>

Item # | BACC RECOMMENDATION | Thacher | Univar |
---|-------------------|----------|--------|
1 | Received all bid packages before the bid deadline | y | y |
2 | Bids submitted on forms provided | y | y |
3 | Must include a base unit price for each geographic area | y | y |
4 | Additional charges for "short load" deliveries shown as a standard deviation on bid form | n | Yes - see below |
5 | References: minimum of 3 | y | y |
6 | Product Specification Deviations - if any, proposed specification must be attached | n | n |
7 | Fully Executed Standard Agreement | y | y |
8 | Fully Executed Non-Collusion Affidavit | y | y |
9 | For potable application only: Affidavit of Compliance to AWWA and/or NSF standard or Statement by chemical manufacturer, signed on letterhead attesting to the affidavit's validity or current printout from NSF.org | y | n |
10 | Representative lab analysis of the chemical prepared by reputable outside laboratory or ISO Certified | y | n |

Name/Address of chemical manufacturer

Sacramento Ag Products - See below. Yes - see below

Product Bulletin and Typical Properties

y | n |

Safety Data Sheet (SDS)

y | n |

Third Party Hauler? If applicable, name, address, Affidavit signed by Bidder

n | y - see below |

Specific Deviations Noted

Yes - see below | Yes - see below |

#10 Thacher

#11 Thacher

11. Chemical Manufacturer’s name and address (Different from Bidder):
   Sacramento Ag Products, LLC
   1121 University Avenue
   Sacramento, CA 95820

#11 Univar

11. Chemical Manufacturer’s name and address (Different from Bidder):
   Univar USA, 2922 Los Altos Pk., Santa Fe Springs, CA 90670
   Univar USA 2922 Los Altos Pk., Santa Fe Springs, CA 90670

#14 Univar

AFFIDAVIT TO DELIVER REQUIREMENTS

STREET ADDRESS:

COUNTY OF SAGUARO

STATE OF ARIZONA

AFFIDAVIT

I, Jennifer Messina, Accounts Payable Specialist for Lithium Solutions USA, LLC ("Lithium") being duly sworn, declare under penalty of perjury that I have read and delivered theбин sodium bisulfite and hereby certify and hereby swear that the information set forth on the attached affidavit and the entire affidavit is true and correct, and acknowledge receipt of the bid documents.

Monarch Transfer Co. 1-800-563-2337
   1010 Corporate Dr., Millbrae, CA 94030
   650-584-0988
   650-584-0989

Buffalo Forge Company 1-888-297-7676
   5680 Pitcher Ave., Tonawanda, NY 14150
   716-838-4214
   716-838-4215

Yell's Transportation 1-800-769-3000
   500 1st Street, Wallingford, CT 06492
   203-533-4100
   203-533-4101

Redondo Truck Lines 1-800-637-0511
   7701 Santa Monica Bl., Santa Monica, CA 90405
   310-839-5100

Sainz Brothers CHEMICAL CO.
   P.O. Box 300, Manhattan, KS 66504
   785-539-1080

I, my Commission Name: JENNIFER J. MESSINA

Enforcement of this affidavit is ordered in accordance with the laws of this state.

[Signature]

DATE: 2024-02-22

#15 Univar

AFFIDAVIT TO DELIVER REQUIREMENTS

STREET ADDRESS:

COUNTY OF SAGUARO

STATE OF ARIZONA

AFFIDAVIT

I, Jennifer Messina, Accounts Payable Specialist for Lithium Solutions USA, LLC ("Lithium") being duly sworn, declare under penalty of perjury that I have read and delivered theбин sodium bisulfite and hereby certify and hereby swear that the information set forth on the attached affidavit and the entire affidavit is true and correct, and acknowledge receipt of the bid documents.

Monarch Transfer Co. 1-800-563-2337
   1010 Corporate Dr., Millbrae, CA 94030
   650-584-0988
   650-584-0989

Buffalo Forge Company 1-888-297-7676
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Sainz Brothers CHEMICAL CO.
   P.O. Box 300, Manhattan, KS 66504
   785-539-1080

I, my Commission Name: JENNIFER J. MESSINA

Enforcement of this affidavit is ordered in accordance with the laws of this state.

[Signature]

DATE: 2024-02-22

#16 Univar

SPECIFIC DEVIATIONS

This box must be checked if bidder has any proposed specific deviations. Per Section 3.12 Proposal Deviations from the specifications by the Bidder, the absence of a proposed change in the specifications will hold the Bidder strictly accountable to this specification as described in the bid document, including any addendum.

Describe the specific deviations below. A copy of the proposed specifications must be attached to this Standard Agreement at the time of submission, and bidder’s name clearly shown on each document.

If split loads, the first order will be charged at LTL rate. The LTL to QL conversion is as follows: 20% to 25%, and 40% to 50%.
BAY AREA CHEMICAL CONSORTIUM
BID FORM FOR BID NO. 11-2024
FOR SUPPLY AND DELIVERY OF SODIUM BISULFITE

Sealed bids must be submitted in a PDF format and bidders must enter bid prices into the electronic bid platform (Line Item page) [https://bacwa.org/about-bacc/]

No later than 4:00 PM. PT Thursday, February 22, 2024

Legal Name of Bidder:
Thatcher Company of California, Inc.

Business Address
P. O. Box 27407
Salt Lake City, UT 84127-0407

Telephone Number: (916) 389-2517
Facsimile Number: (916) 389-2516
Email Address: wendy.richmond@lchem.com,
Jayson.stenquist@lchem.com

Authorized Representative (Please Print):
Michael T. Mitchell

Signature: [Signature]
Date: February 14, 2024

I. All costs except California State sales tax for the purchase of SODIUM BISULFITE must be included in the amount shown entered into the electronic bid platform (Line Item page), including any and all mill assessments, fees, excise taxes, transportation charges, etc. Any exceptions to the bid must be noted under Specific Deviations on the Standard Agreement. Bidders shall submit bids per unit of measure as specified in the electronic bid platform (Line Item page).

II. Bidders must submit all of the following, attached to this Bid Form:
   a. All requirements listed in Section 2.21 Manufacturer's Info.
   b. If applicable, the name, address, and contact information for the third party hauling company as well as an affidavit signed by the Bidder that the third party hauler can and will deliver the chemical to each and every participating BACC Agency.

III. Bidder Obligations
By signing this Bid Form and entering into individual purchase orders, purchase agreements and/or contracts with BACC agencies, the bidder expressly agrees to be bound by all the provisions of the bid solicitation, including Sections I-IV.
I hereby agree to furnish SODIUM BISULFITE identified in the attached bid forms, as solicited by the Bay Area Chemical Consortium (BACC), to one or more of the participating BACC Agencies.

Company: Thatcher Company of California, Inc.
Address: P. O. Box 27407
City, State, ZIP: Salt Lake City, UT 84127-0407
Phone: (916) 389-2517
Email: wendy.richmond@tchem.com; jayson.stenquist@tchem.com
Authorized Representative: Michael T. Mitchell
Signature: [Signature]
Date: February 14, 2024

WE ACKNOWLEDGE RECEIVING ADDENDUM/ADDENDA NUMBER _____ THROUGH _____.

SPECIFIC DEVIATIONS:
☐ This box must be checked if bidder has any proposed specific deviations. Per Section 2.12 Proposed Deviations from the Specifications by the Bidder, the absence of a proposed changed in the specifications will hold the bidder strictly accountable to the specifications as described in the bid document, including any addendum.

Describe the specific deviations below. A copy of the proposed specifications must be attached to this Standard Agreement at the time of submission, with bidder’s name clearly shown on each document.

ADDENDUM/ADDENDA NUMBER _____ THROUGH _____

ADDENUM/ADDENDA NUMBER _____ THROUGH _____

ADDENUM/ADDENDA NUMBER _____ THROUGH _____

ADDENUM/ADDENDA NUMBER _____ THROUGH _____

ADDITION TO TERMS AND CONDITIONS, SECTION 4, 4.1 INDEMNIFICATION: In no event shall either party be liable to the other for incidental, consequential, indirect, special, exemplary, or punitive damages (including, but not limited to, loss of profits) arising out of any breach of this Agreement or any of the obligations under this Agreement.
1. Legal Name of Bidder: 
   Thatcher Company of California, Inc.

2. Bidder’s Street Address: 
   8625 Unsworth Avenue, Sacramento, CA 95828

3. Mailing Address: 
   P. O. Box 27407, Salt Lake City, UT 84127-0407

4. Business Telephone: (916) 389-2517 Fax Number: (916) 389-2516

5. Type of Supplier: 
   Sole Proprietor Partnership x Corporation
   If Corporation, indicate State where incorporated: California

6. Business License Number issued by the City where the Supplier’s principal place of business is located. 
   Number: 1008886 Issuing City: Sacramento

7. Supplier Federal Tax Identification Number: 95-2944197

8. Emergency Contact: Name: Philip Belden 
   Phone Number: (702) 219-2372

9. Order Contact: Name: Customer Service 
   Address: 8625 Unsworth Avenue, Sacramento, CA 95828 
   Phone Number: (916) 389-2517 Fax Number: (916) 389-2516 
   Email: cscastchem.com

10. References: 
    | Company/Agency Name | Contact Name      | Phone Number   |
    |--------------------|------------------|----------------|
    | 1) Sacramento Reg. County Sanitation | Tamblynn Stewart | (916) 875-9014 |
    | 2) Tracy City, CA   | Margie Goulart   | (209) 831-4480 |
    | 3) Redding City, CA | Tim Conley       | (530) 410-8636 |

11. Chemical Manufacturer’s name and address (if different from Bidder): 
    Sacramento Ag Products, LLC 
    8625 Unsworth Avenue 
    Sacramento, CA 95828
Non-Collusion Affidavit
To Be Executed By Bidder and Submitted With Bid

Utah
State of California
County of Salt Lake

Michael T. Mitchell, being first duly sworn, deposes and says that he or she is the
(Bidder’s Authorized Representative)

President of Thatcher Company of California, Inc. the party making the
(Title of Representative) (Legal Name of Bidder)

foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person,
partnership, company, association, organization, or corporation; that the bid is genuine and not collusive
or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a
false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any
bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has
not in any manner, directly or indirectly, sought by agreement, communication, or conference with
anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element
of the bid price, or of that of any other bid, or to secure any advantage against the public body awarding
the contract of anyone interested in the proposed contract; that all statements contained in the bid are
true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any
breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and
will not pay, any fee to any corporation, partnership, company association, organization, bid depository,
or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the state of California that the foregoing is true and
correct.

Signature of: President, Secretary, Michael T. Mitchell
Manager, Owner, or Representative

Subscribed and sworn to before me this, 14th day of February, 20 24

Wendy G. Richmond
Signature of Notary Public In and For
Wendy G. Richmond
The County of Salt Lake
State of Utah

All Signatures Must Be Witnessed By Notary
CERTIFICATE OF ANALYSIS

SODIUM BISULFITE 25 SOLUTION

This is to certify that the listed shipment of Sodium Bisulfite 25 Solution was assayed with the following results:

Date: February 20, 2024
Lot Number: 2402201067
Customer: 
BOL Number: 

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Specifications</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Uniform, clear yellow solution</td>
<td>Pass</td>
</tr>
<tr>
<td>pH</td>
<td>5.0-5.4</td>
<td>5.2</td>
</tr>
<tr>
<td>Specific Gravity (25C)</td>
<td>1.20-1.22</td>
<td>1.21</td>
</tr>
<tr>
<td>% Sodium Bisulfite</td>
<td>24.5-25.4</td>
<td>25.0</td>
</tr>
</tbody>
</table>

This certificate is issued electronically and is valid without signature.

Sacramento AG Products, LLC.
March 18, 2024

Thatcher Company of California, Inc.
ATTN Michael T. Mitchell
PO Box 27407
Salt Lake City, UT 84127

RE: Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 11-2024 for Supply and Delivery of SODIUM BISULFITE.

Dear Mr. Mitchel,

We are pleased to advise you that the bid submitted by Thatcher Company of California, Inc. for Bid No. 11-2024 was determined to be the lowest responsive bid for the supply and delivery of SODIUM BISULFITE during the period July 1, 2024 through June 30, 2025.

The participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Thatcher Company of California, Inc. for their respective facilities.

Bay Area Chemical Consortium sincerely appreciates your efforts and participation in the competitive bid process.

If you have any questions, please free to contact me at jdyment@bacwa.org

Sincerely,

Jennifer Dyment
Assistant Executive Director
BACWA.org
as Coordinating Agency for the Bay Area Chemical Consortium
### Bid Results for Project 11-2024 SODIUM BISULFITE

**Bid Due on February 22, 2024 4:00 PM (PDT)**

**SINGLE BID AWARD**

<table>
<thead>
<tr>
<th>Section</th>
<th>Sodium Bisulfite 25%</th>
<th>SODIUM BISULFITE 40% Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Central Valley</td>
<td>East Bay</td>
</tr>
<tr>
<td>Unit of Measure</td>
<td>gal</td>
<td>gal</td>
</tr>
<tr>
<td>Thatcher Company of California, Inc.</td>
<td>1.6400</td>
<td>1.6400</td>
</tr>
</tbody>
</table>
SIGNATURES

The parties have signed this Contract, effective as of the day and year first stated above.

CONTRACTOR

Under penalty of perjury, I certify that the information provided here is correct.

Signature:  

Craig Thatcher (May 15, 2024 10:37 MDT)

Title:  CEO

Additional Signature (if required):  

Mike Mitchell (May 14, 2024 21:45 MDT)

Title:  President

CITY OF SACRAMENTO

A Municipal Corporation

APPROVED AS TO FORM:

Signature:  

Michael Voss (May 15, 2024 09:51 PDT)

Title:  Senior Deputy City Attorney

Reviewed By:

Signature:  

Title:  

Approved By:

Signature:  

Title:  

Additional Signature (if required):

Title:  
The City of Sacramento ("City") and Pioneer Americas LLC, wholly subsidiary of Olin Corporation ("Contractor"), hereby agree to these Additional Terms and Conditions ("Additional Terms"), effective July 1, 2024.

WHEREAS, Contractor is an authorized dealer for Pioneer Americas LLC, wholly subsidiary of Olin Corporation, which entered into Contract No. PRC002850 for Sodium Hypochlorite with the Bay Area Chemical Consortium (BACC), dated July 1, 2024 ("Cooperative Contract"), in which Contractor agreed to sell Sodium Hypochlorite to governmental agencies that are members of BACC’s Cooperative Purchasing Program ("Participating Public Agencies"); and

WHEREAS, the City wishes to purchase Sodium Hypochlorite, pursuant to the terms of the Cooperative Contract and these Additional Terms.

NOW THEREFORE, Contractor and the City agree as follows:

1. The City agrees to purchase, pursuant to the terms of the Cooperative Contract, Sodium Hypochlorite as set forth in Quotation No. 13-2024.

2. The City shall have all the same rights and obligations as BACC under the Cooperative Contract. The terms of the Cooperative Contract shall apply to this purchase and shall control over any contrary terms included in the attached quotation.

3. Contractor agrees that the equipment shall be delivered to the City no later than SPECIFIED IN DELIVERY DETAILS FROM BID 13-2024.

4. Contractor warrants and represents that the person or persons executing this Agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this contract supplement and bind Contractor to the terms hereof.

5. Except as specifically modified herein, all terms and conditions of the Cooperative Contract shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by these Additional Terms.
## Regional Bid Award

**Section**

<table>
<thead>
<tr>
<th>Description</th>
<th>Central Valley</th>
<th>East Bay</th>
<th>North Bay Peninsula</th>
<th>Sacramento</th>
<th>Tri-Valley</th>
<th>Central Valley</th>
<th>East Bay</th>
<th>North Bay Peninsula</th>
<th>Sacramento</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hypochlorite 12.5% In Carboys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hypochlorite 5.25% (Optional bid item)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Price Comparisons

- **Hasa, Inc.**
  - Central Valley: No Bid
  - East Bay: No Bid
  - North Bay Peninsula: No Bid
  - Sacramento: No Bid
  - Tri-Valley: No Bid

- **JCI Jones Chemicals Inc.**
  - Central Valley: No Bid
  - East Bay: No Bid
  - North Bay Peninsula: No Bid
  - Sacramento: No Bid
  - Tri-Valley: No Bid

- **Univar Solutions USA LLC.**
  - Central Valley: 3.2500
  - East Bay: 3.2300
  - North Bay Peninsula: 3.2500
  - Sacramento: 3.2100
  - Tri-Valley: 3.2800

- **Olin Corporation**
  - Central Valley: 3.2900
  - East Bay: 3.3900
  - North Bay Peninsula: 3.2900
  - Sacramento: 3.2900
  - Tri-Valley: 3.2500

### Lowest Responsive Bid for Each Region

- **Univar Solutions USA LLC.**
  - Central Valley: $6,353,158.50
  - East Bay: $5,991,650.00
  - North Bay Peninsula: $3,503,500.00
  - Sacramento: $6,789,150.00
  - Tri-Valley: $2,902,800.00

- **Olin Corporation**
  - Central Valley: $6,431,351.22
  - East Bay: $6,288,450.00
  - North Bay Peninsula: $3,546,620.00
  - Sacramento: $6,958,350.00
  - Tri-Valley: $2,911,650.00

### Estimated Annual Quantity (in gals)

- **Central Valley**: 1,954,818
- **East Bay**: 1,855,000
- **North Bay Peninsula**: 1,078,000
- **Sacramento**: 2,115,000
- **Tri-Valley**: 885,000

### Method of Award

Bids may be awarded by the participating BACC agencies to the lowest, responsive, and responsible bidder meeting the specifications for each region. The lowest responsive bidder meeting the specifications for each region will be determined for each region listed on the Bid Form. The lowest responsive bidder will be awarded the Contract for the lowest overall bid price for a particular region, assuming the bid is determined to be complete and in compliance with the bid requirements. The lowest overall bid price for each region will be determined by multiplying the estimated annual quantity for each participating agency within the particular region by the bid prices for the region, and adding up the aggregate cost. BACC has the right to delete terms or options from the bid contract documents and reserves the right to reject any and all bids submitted for such terms or options.

- **SODIUM HYPOCHLORITE 12.5% In 275-gal totes (Optional bid item)**
Bay Area Clean Water Agencies

Bid Results for Project 13-2024 SODIUM HYPOCHLORITE 12.5%

Bid Due on February 22, 2024 4:00 PM (PT)

Addendum issued: one

REGIONAL AWARD

Univar

Olin

SODIUM HYPOCHLORITE 12.5% for

Sacramento region, SODIUM HYPOCHLORITE 5.25% (Optional bid item) for Sacramento region

BACC RECOMMENDATION

SODIUM HYPOCHLORITE 12.5% for Central Valley, East Bay, Marin Sonoma Napa, North Bay, Peninsula, South Bay, Tri Valley regions.

BIDS UNRANKED

Item #

BACC RECOMMENDATION

SODIUM HYPOCHLORITE 12.5% for Sacred regions, SODIUM HYPOCHLORITE 5.25% (Optional bid item) for Sacred regions

1. Received via bid platform by bid deadline above

2. Bids submitted on forms provided

3. Must include a base unit price for each geographic area

4. Additional charges for "short load" deliveries shown as a standard deviation on bid form

5. References: included

6. Bidder Equivalency Determination: if any, proposed specification must be attached

7. Bidder's Statement of Equalization

8. Bidder's Statement of Conformance

9. Proprietary equipment requirements: Olin will supply equipment if required. Olin's proposal must be signed and attached to the bid form.

10. Signatures on all bid forms and documents

11. Bidder's Equivalency Determination

12. Solicitation

13. Base Unit Price

14. Revised total amount bid

15. Bidder's Statement of Equipment

16. Product Specification Deviation: if any, proposed specification must be attached

17. Fully Executed Standard Agreement

18. Fully Executed Non-Collusion Affidavit

19. For potable application only: Affidavit of Compliance to AWWA and/or NSF standard or Statement by chemical manufacturer, signed on letterhead attesting to the affidavit's validity or current printout from NSF.org

20. Representative shall sign off on the suppliers' representation to uphold equalization or equivalency to the specifications.

21. Addendum/Addenda Acknowledgement

22. Third Party Hauler? If applicable, name, address, Affidavit signed by Bidder

23. Specific Deviations Noted

24. Name / Address of chemical manufacturer

25. Product Bulletin and Typical Properties

26. Safety Data Sheet (SDS)

PSI Univar

Attain Regulatory Requirements

Type of Application:

COUNTY OR CITY

1. Local Public Works, Mitigation Activities for Survey

2. Water Treatment for Public Water Supply System

3. Water Treatment for Private Water Supply System

4. Additional charges for "short load" deliveries shown as a standard deviation on bid form

5. References: included

6. Bidder Equivalency Determination: if any, proposed specification must be attached

7. Bidder's Statement of Equalization

8. Bidder's Statement of Conformance

9. Proprietary equipment requirements: Olin will supply equipment if required. Olin's proposal must be signed and attached to the bid form.

10. Signatures on all bid forms and documents

11. Bidder's Equivalency Determination

12. Solicitation

13. Base Unit Price

14. Revised total amount bid

15. Bidder's Statement of Equipment

16. Product Specification Deviation: if any, proposed specification must be attached

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22. Third Party Hauler? If applicable, name, address, Affidavit signed by Bidder

23. Specific Deviations Noted

24. Name / Address of chemical manufacturer

25. Product Bulletin and Typical Properties

26. Safety Data Sheet (SDS)

PSI Olin

11. Chemical Manufacturer's name and address (If different from Bidder):

   51 Pacifica Blvd

   Fremont, CA 4407

PSI Olin

Univar 3rd Party Carrier List

Quality Centers

209-951-7400

Quartz Transportation

415-778-6400

Legal Transport Services

408-733-2004

RE: 16-16 - 2 pages

#15 Univar

#11 Olin

#15 Olin

#4, 6, 16 Olin - 2 pages

#4 & 15 Univar

#11 Univar
FULL TRUCK LOAD SHIPMENTS: When a consignor requests a full truck load, carrier shall deliver. Due to inflation, cost increases in transportation and fuel costs, additional adjustments for carrier charges for less than truckload or split shipments may apply individually by date as follows:

1. Less than truckload shipments - Short distances < 1,000 miles: New freight rates per shipment by the truck load is a flat rate per shipment to be advised at time of order.

2. Full truck loads - shipments > 1,000 miles: May incur a $50 freight surcharge per shipment for the truck load surface carrier service.

Strokes of $10.00 or above will be safely executed by the trucker. If strokes exceed $10.00, the carrier reserves the right to cancel the shipment. No strokes are allowed above $10.00. This policy applies to all points in the continental United States. Please check with the appropriate carrier for the nearest location to your final destination. Additional services may be required.

For the consignor's information, certain carriers may require special handling equipment and/or special handling procedures. It is recommended that all carriers be contacted for specific requirements.

Split shipments involving more than one pickup or delivery per individual shipment may incur multiple carrier charges of $25 per pickup. Split shipments are considered to be separate and must be handled as such. Additional services may be required.

Please check with your carrier for specific requirements and rates.
BAY AREA CHEMICAL CONSORTIUM
BID FORM FOR BID NO. 13-2024
FOR SUPPLY AND DELIVERY OF SODIUM HYPOCHLORITE 12.5%

Sealed bids must be submitted in a PDF format and bidders must enter bid prices into the electronic bid platform (Line Item page)
https://bacwa.org/about-bacc/

No later than 4:00 PM. PT
Thursday, February 22, 2024

Legal Name of Bidder:
Pioneer Americas LLC is a wholly subsidiary of Olin Corporation

Business Address
490 Stuart Road, NE
Cleveland, TN 37312

Telephone Number: (423) 336-4421
Facsimile Number: (423) 336-4682
Email Address: OWCMktng_BidTeam@olin.com

Authorized Representative (Please Print):
Patrick M. Schumacher, VP and President, Chlor Alkali Products
Signature:
Date: 2/13/24

I. All costs except California State sales tax for the purchase of SODIUM HYPOCHLORITE 12.5% must be included in the amount shown entered into the electronic bid platform (Line Item page), including any and all mill assessments, fees, excise taxes, transportation charges, etc. Any exceptions to the bid must be noted under Specific Deviations on the Standard Agreement. Bidders shall submit bids per unit of measure as specified in the electronic bid platform (Line Item page).

II. Bidders must submit all of the following, attached to this Bid Form:
   a. All requirements listed in Section 2.21 Manufacturer's Info.
   b. If applicable, the name, address, and contact information for the third party hauling company as well as an affidavit signed by the Bidder that the third party hauler can and will deliver the chemical to each and every participating BACC Agency.

III. Bidder Obligations
    By signing this Bid Form and entering into individual purchase orders, purchase agreements and/or contracts with BACC agencies, the bidder expressly agrees to be bound by all the provisions of the bid solicitation, including Sections I-IV.
**Affidavit of Compliance**

The Sodium Hypochlorite to be furnished under this Proposal is of the highest industry standard and complies with all bid specifications including current ANSI/AWWA Standards and NSF Standard 60.

Joy Burris  
Bleach Marketing Director  
Olin Chlor-Alkali Products and Vinlys
CERTIFIED LABORATORY REPORT

Olin Chlor Alkali Products and Vinyle
1186 Lower River Road NE
Charleston, TN 37310
1-423-336-4000

Product: Sodium Hypochlorite 12.5%  Sample ID: 231204
Production Facility: Olin-K2  Sample Date: 12/04/2023
Specification: BACC

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Analysis</th>
<th>Units</th>
<th>Specification</th>
<th>Analyst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite, NaOCl</td>
<td>12.5</td>
<td>wt %</td>
<td>12.5 min.</td>
<td>Olin-Charleston</td>
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<tr>
<td>Available chlorine, Cl₂</td>
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<td>wt %</td>
<td>11.9 min.</td>
<td>Olin-Charleston</td>
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<td>lbs/gal</td>
<td>1.05 min.</td>
<td>Olin-Charleston</td>
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<tr>
<td>pH</td>
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<td></td>
<td>12-13</td>
<td>Estimated</td>
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<td>Density at 60 °F</td>
<td>10.00</td>
<td>lbs/gal</td>
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<td>Olin-Charleston</td>
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<td>Specific Gravity at 60 °F</td>
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<td>Total free alkali as NaOH</td>
<td>0.4</td>
<td>wt %</td>
<td>1.5</td>
<td>Olin-Charleston</td>
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<tr>
<td>Total free alkali as NaOH</td>
<td>0.04</td>
<td>lbs/gal</td>
<td></td>
<td>Olin-Charleston</td>
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<tr>
<td>Actual NaOH</td>
<td>0.3</td>
<td>wt %</td>
<td>1.5</td>
<td>Olin-Charleston</td>
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<tr>
<td>Actual NaOH</td>
<td>0.03</td>
<td>lbs/gal</td>
<td>0.1</td>
<td>Olin-Charleston</td>
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<td>Sodium carbonate, Na₂CO₃</td>
<td>0.1</td>
<td>wt %</td>
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<td>Olin-Charleston</td>
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<td>Sodium carbonate, Na₂CO₃</td>
<td>0.01</td>
<td>lbs/gal</td>
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<td>Olin-Charleston</td>
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<td>Insolubles</td>
<td>&lt; 0.15</td>
<td>wt %</td>
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<td>Chlorate, ClO₃⁻</td>
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<td>mg/L</td>
<td>&lt; 2380</td>
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<td>Bromate, BrO₅⁻</td>
<td>&lt;10</td>
<td>mg/L</td>
<td>&lt; 20</td>
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<td>Iron, Fe</td>
<td>&lt; 0.1</td>
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<td>Copper, Cu</td>
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<tr>
<td>Nickel, Ni</td>
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<td>mg/L</td>
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<td>Olin-Charleston</td>
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<td>Cobalt, Co</td>
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<td>mg/L</td>
<td>&lt; 0.1</td>
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<td>Timed filtration</td>
<td>1.39</td>
<td>min</td>
<td>3.0</td>
<td>Olin-Charleston</td>
</tr>
</tbody>
</table>

(1 L through 0.8 micron at 25 mm Hg)
Kirk Mulligan, Ph.D., Division Quality Sr. Chemist

Olin-Charleston is an ISO certified facility

Olin-K2 Pure Solutions L.P. is an NSF certified supplier
NSF Product and Service Listings

These NSF Official Listings are current as of Friday, September 23, 2022 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:

---

**NSF/ANSI/CAN 60**

**Drinking Water Treatment Chemicals - Health Effects**

---

Olin DBA Chlor Alkali Products DBA
Blue Cube Operations DBA KA Steel
490 Stuart Road
Cleveland, TN 37312
United States
423-336-4489
Visit this company’s website (http://www.olin.com)

**Facility:** Pittsburg, CA

<table>
<thead>
<tr>
<th>Hydrochloric Acid</th>
<th>Product Function</th>
<th>Max Use</th>
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</thead>
<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrochloric Acid, 20 deg. Be'</td>
<td>Corrosion &amp; Scale Control</td>
<td>40mg/L</td>
</tr>
<tr>
<td>Hydrochloric Acid, 22 deg. Be'</td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Hydrochloric Acid, Dilute</td>
<td>Corrosion &amp; Scale Control</td>
<td>40mg/L</td>
</tr>
<tr>
<td>Hydrochloric Acid, Dilute</td>
<td>pH Adjustment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>Product Function</th>
<th>Max Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Designation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide, 50% Solution, Commercial Grade</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
<tr>
<td>Sodium Hydroxide, 50% Solution, Membrane</td>
<td>pH Adjustment</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide, 50% Solution, Membrane</td>
<td>Corrosion &amp; Scale Control</td>
<td>100mg/L</td>
</tr>
</tbody>
</table>
Grade
Sodium Hydroxide, Dilute  pH Adjustment
pH Adjustment
Corrosion & Scale Control  100mg/L

Sodium Hypochlorite [HY]

Trade Designation  Product Function  Max Use
L.T. Sanitizer 5.25%  Disinfection & Oxidation  200mg/L
Sodium Hypochlorite -12.5 Baecticide  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, product packaging, and/or documentation shipped with the product are Certified.
Chlorine/Bleach Plant Locations

Pittsburg, CA  
(Northern & Central CA, Northern NV)  
950 Loveridge Rd.  
Pittsburg, CA  94565  
Office: (925) 526-8112  
Sales Rep:  Jason Cho  
Cell: (251) 895-2077  
Customer Service (orders):  
(833) 370-3737  
Customer Service (Email):  
Capvcustomerservicewest@olin.com

Santa Fe Springs, CA  
(Southern CA)  
11600 Pike Street  
Santa Fe Springs, CA  90670  
Plant Manager: Drew Sikkema  
Office: (562) 692-0510  
Sales Rep:  Chuck Hogan  
Cell (925) 200-8583  
Customer Service (orders):  
(833) 370-3737  
Customer Service (Email):  
Capvcustomerservicewest@olin.com

Remit To Address:  
Pioneer Americas LLC 10728  
540 W. Madison St. 4th Floor  
Chicago, IL 60661  
E-remittance: OlinRemits@olin.com

Henderson, NV  
(AZ, NM, NV, UT, Mexico)  
350 Fourth Street  
Henderson, NV 89015  
Plant Manager: Gil Doucet  
Office: (702) 564-0356  
Sales Rep:  Nick Pregman  
Cell: (702) 232-5542  
Customer Service (orders):  
(833) 370-3737  
Customer Service (Email):  
Capvcustomerservicewest@olin.com

Procedures For Chemical Emergencies:  
- Drivers are instructed to call 911 (First)  
- Contact Chemtrec (Second)  
- Contact Olin Technical Support (Third)

OLIN Contact For Emergencies:  
- 24 hour emergency phone number(Chemtrec):  
  (800) 424-9300  
- Charles Burgess, Tech Services  
  (702) 564-0477 office  
  (209) 207-2113 cell
# Sales Specification

## 12.5 wt% Sodium Hypochlorite Solution

## West Coast Water Treatment Specification

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hypochlorite, NaOCl</td>
<td>wt%</td>
<td>12.5</td>
<td>15.6</td>
</tr>
<tr>
<td>Available Chlorine</td>
<td>wt%</td>
<td>11.9</td>
<td>14.8</td>
</tr>
<tr>
<td>Total Alkalinity(^1)</td>
<td>wt%</td>
<td>0.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Chlorate (12.5% Basis)(^2)</td>
<td>ppm</td>
<td>N/A</td>
<td>3,570</td>
</tr>
<tr>
<td>Bromate (12.5% Basis)(^2)</td>
<td>ppm</td>
<td>N/A</td>
<td>39</td>
</tr>
<tr>
<td>Insolubles(^1)</td>
<td>wt%</td>
<td>N/A</td>
<td>0.15</td>
</tr>
<tr>
<td>Iron, Fe</td>
<td>ppm</td>
<td>N/A</td>
<td>1.5</td>
</tr>
<tr>
<td>Nickel, Ni</td>
<td>ppm</td>
<td>N/A</td>
<td>0.1</td>
</tr>
<tr>
<td>Copper, Cu</td>
<td>ppm</td>
<td>N/A</td>
<td>0.1</td>
</tr>
<tr>
<td>Cobalt, Co</td>
<td>ppm</td>
<td>N/A</td>
<td>0.1</td>
</tr>
<tr>
<td>Sodium Hypochlorite, NaOCl</td>
<td>wt%</td>
<td>12.5</td>
<td>15.6</td>
</tr>
<tr>
<td>Available Chlorine</td>
<td>wt%</td>
<td>11.9</td>
<td>14.8</td>
</tr>
</tbody>
</table>

\(^1\) – Limit set to meet ANSI/AWWA B300-18

\(^2\) – Limit set to meet NSF/ANSI Standard 60

---

### Meets the Following

- ANSI/AWWA B300-18
- Registered EPA Pesticide
- Certified for the NSF/ANSI Standard 60 at a maximum use level of 84 mg/L
# Sales Specification

5.25% Sodium Hypochlorite Solution  
Potable Water Grade

## Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>Min</th>
<th>Max</th>
<th>Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hypochlorite, NaOCl</td>
<td>wt%</td>
<td>5.25</td>
<td>6.60</td>
<td>X</td>
</tr>
<tr>
<td>Total Alkalinity as NaOH</td>
<td>wt%</td>
<td>0.1</td>
<td>1.5</td>
<td>X</td>
</tr>
<tr>
<td>Density @ 20°C</td>
<td>g/mL</td>
<td>N/A</td>
<td>N/A</td>
<td>X</td>
</tr>
</tbody>
</table>

## Meets the Following

- Registered EPA Pesticide
- Certified for the NSF/ANSI Standard 60 at a maximum use level of 200 mg/L
SAFETY DATA SHEET

Sodium Hypochlorite, 5 - 17%

Version: 4.0  Revision Date: 06-14-2021  SDS Number: 10000001223  Date of last issue: 03-06-2020

Olin Corporation (OCAP) encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

SECTION 1. IDENTIFICATION

Product name: Sodium Hypochlorite, 5 - 17%

Manufacturer or supplier's details
Company name of supplier: Olin Corporation (OCAP)
Address: 190 Carondelet Plaza, Suite 1530
Clayton MO 63105
Telephone: (423) 336-4850
E-mail address: INFO@OLIN.COM
Local Emergency Contact: 1-800-424-9300

Identified uses: Disinfectant.
Paper bleaching agent
Water treatment chemicals
Biocidal product
Bleaching agents, Activators and Stabilizers
Textile bleaching agent

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Corrosive to Metals: Category 1
Skin corrosion: Category 1B
Serious eye damage: Category 1

GHS label elements
Hazard pictograms:

Signal Word: Danger

Hazard Statements: May be corrosive to metals. Causes severe skin burns and eye damage.

Precautionary Statements: Prevention:
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT
induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 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.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

Storage:
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Substance name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sodium Hypochlorite, 5 - 17%</td>
<td>7681-52-9</td>
</tr>
</tbody>
</table>

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite</td>
<td>7681-52-9</td>
<td>&gt;= 5 - &lt;= 17</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt;= 83 - &lt;= 95</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>&gt;= 0.1 - &lt;= 4.5</td>
</tr>
</tbody>
</table>

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

If inhaled
In case of skin contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Seek medical attention if symptoms occur or irritation persists. Wash clothing before reuse.
Suitable emergency safety shower facility should be immediately available.

In case of eye contact: - Wash eyes with plenty of water for 15 minutes at least. Do not forget to remove contact lenses.
Suitable emergency eye wash facility should be immediately available.

If swallowed: Do not induce vomiting. Give one cup (8 ounces or 240 ml) of
<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue: 03-06-2020</th>
<th>Date of first issue: 06-14-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>06-14-2021</td>
<td>10000001223</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Most important symptoms and effects, both acute and delayed

Protection of first-aiders

- Water or milk if available and transport to a medical facility. Do not give anything by mouth unless the person is fully conscious.
- Aside from the information found under Description of first aid measures (above) any additional important symptoms and effects are described in Section 11: Toxicology Information.
- First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).
- If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician

- May cause asthma-like (reactive airways) symptoms.
- Bronchodilators, expectorants, antitussives and corticosteroids may be of help.
- Maintain adequate ventilation and oxygenation of the patient.
- Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist.
- If burn is present, treat as any thermal burn, after decontamination.
- Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury, suggest endotracheal/esophageal control if lavage is done.
- No specific antidote.
- Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
- Repeated excessive exposure may aggravate preexisting lung disease.

SECTION 5. FIRE-FIGHTING MEASURES

| Suitable extinguishing media | In case of fire, use water fog, foam, dry powder, carbon dioxide. |
| Unsuitable extinguishing media | Do NOT use water jet. May spread fire. Dry chemical extinguishing agents may react with product; use with caution. |
| Hazardous combustion products | During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. |
| Further information | For safety reasons in case of fire, containers should be stored separately in closed containments. Do not breathe fumes. |
| Special protective equipment for fire-fighters | Wear full protective clothing and self-contained breathing apparatus. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protective equipment and emergency procedures | Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Wear suitable protective equipment. Keep upwind of spill. |
Avoid breathing vapor. 
Ventilate area of leak or spill. 
Avoid all contact. 
Keep people away from and upwind of spill/leak. 
Wear suitable protective clothing. 
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions:
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Do not discharge directly to a water source. See Section 13, Disposal Considerations, for additional information.

Methods and materials for containment and cleaning up:
Contain spilled material if possible. 
Absorb with materials such as: Vermiculite. 
Cover with absorbent or contain. Collect and dispose. Dike and transfer to suitable and properly labeled containers. This material is corrosive. See SECTION 8, Exposure Controls/Personal Protection, prior to handling. Soak up with inert absorbent material (e.g. sand, silica gel, polypropylene absorbent).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling:
Keep container closed. Do not get in eyes, on skin, or on clothing. Avoid prolonged contact with eyes, skin and clothing. Wear personal protective equipment. Use with adequate ventilation. Protect from direct exposure to sunlight. Use good general industrial hygiene practices for handling. Wash thoroughly after handling.

Conditions for safe storage:
Keep container tightly closed. Store away from incompatible materials. See STABILITY AND REACTIVITY section. Store under cover in a dry, clean, cool, well ventilated place away from sunlight. Store away from oxidizing materials. Store in original vented container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite</td>
<td>7681-52-9</td>
<td>STEL</td>
<td>2 mg/m3</td>
<td>US WEEL</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>C</td>
<td>2 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>2 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
</tbody>
</table>

Engineering measures:
Use local exhaust ventilation, or other engineering controls to
maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

**Personal protective equipment**

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

Filter type: The following should be effective types of air-purifying respirators: Particulate filter.

Hand protection

Remarks: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Natural rubber (‘latex’), Neoprene, Nitrile/butadiene rubber (‘nitrile’ or ‘NBR’), Polyethylene. Ethyl vinyl alcohol laminate (‘EVAL’). Polyvinyl chloride (‘PVC’ or ‘vinyl’), Avoid gloves made of: Polyvinyl alcohol (‘PVA’), NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Eye protection: Use chemical goggles.

Skin and body protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Reports indicate that sodium hypochlorite can react with various fabrics usually increasing with concentration. Reactions vary significantly depending on strength of chemical, material, fabric treatment and color of dyes. Fire resistant clothing treated cotton has a stronger response than plain cotton. Poly blend fabrics and meta aramid fabric have a weaker response than natural fibers. Contact the Personal Protective Equipment manufacturer for specific information about their products.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**: liquid

**Color**: No data available
Odor: pungent
Odor Threshold: No data available
pH: 12 - 14 (77 °F / 25 °C)
Freezing point: -4 °F / -20 °C
   Method: Literature
Melting point/range: -4 °F / -20 °C
   Method: Literature
Pour point
Softening point
Boiling point/boiling range: No data available
Flash point: Not applicable
Evaporation rate: No data available
Flammability (solid, gas): Not expected to form explosive dust-air mixtures.
Flammability (liquids): Not expected to be a static-accumulating flammable liquid.
Self-ignition: The substance or mixture is not classified as pyrophoric.
Upper explosion limit / Upper flammability limit: Not applicable
Lower explosion limit / Lower flammability limit: Not applicable
Vapor pressure: 12 mmHg
Relative vapor density: Not available
Relative density: 1.082 - 1.275 (68 °F / 20 °C)
Solubility(ies): Water solubility: completely miscible
Partition coefficient: n-octanol/water: No data available.
Autoignition temperature: Not applicable
Decomposition temperature: No data available
Viscosity
   Viscosity, dynamic: No data available
   Viscosity, kinematic: No data available
Explosive properties: Not applicable
Oxidizing properties: Not applicable
SAFETY DATA SHEET
Sodium Hypochlorite, 5 - 17%

Molecular weight : 74.5 g/mol
Metal corrosion rate : Corrosive to metals

Note: These are the Reference Points for these Physical Properties listed above, unless otherwise noted in their respective Physical Property value information: Boiling Point at 760 mmHg; Evaporation Rate Butyl Acetate = 1; Relative Vapor Density Air = 1; and Relative Density Water = 1.
NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No data available
Chemical stability : Stable under recommended storage conditions. See Storage, Section 7.
Possibility of hazardous reactions : Polymerization will not occur. Stable under recommended storage conditions.
Conditions to avoid : contact with incompatible materials Avoid direct sunlight or ultraviolet sources. Excessive heat. contact between acids and chlorates, a component of this product mixture, can cause the generation of chlorine gas.
Hazardous decomposition products : Oxygen.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Eye contact
Skin contact
Inhalation
Ingestion

Acute toxicity
Swallowing may result in burns of the mouth, throat, and gastrointestinal tract.

Components:

Sodium hypochlorite:
Acute oral toxicity : LD50 (Rat): 805 mg/kg Method: Estimated.
Acute inhalation toxicity : LC50 (Rat): > 10.5 mg/l Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity : LD50 (Rat): > 1,000 mg/kg

Sodium hydroxide:
Acute oral toxicity : LD50 (Rabbit): 336 mg/kg Method: Estimated.
SAFETY DATA SHEET

Sodium Hypochlorite, 5 - 17%

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Acute inhalation toxicity: Remarks: The LC50 has not been determined.

Acute dermal toxicity: Remarks: The dermal LD50 has not been determined.

**Skin corrosion/irritation**
Causes severe skin burns and eye damage.

**Components:**

**Sodium hypochlorite:**
- Result: Causes burns.
- Remarks: Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage. Prolonged contact may cause severe skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.

**Sodium hydroxide:**
- Result: Causes severe burns.
- Remarks: Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.

**Serious eye damage/eye irritation**
Causes severe skin burns and eye damage.

**Components:**

**Sodium hypochlorite:**
- Result: Corrosive
- Remarks: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

**Sodium hydroxide:**
- Result: Corrosive
- Remarks: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Dust may irritate eyes.

**Respiratory or skin sensitization**

**Skin sensitization**
Not classified based on available information.

**Respiratory sensitization**
Not classified based on available information.

**Components:**

**Sodium hypochlorite:**
- Assessment: Does not cause skin sensitization.
- Remarks: Did not cause allergic skin reactions when tested in guinea.
SAFETY DATA SHEET

Sodium Hypochlorite, 5 - 17%

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pigs.

Remarks: For respiratory sensitization:
No relevant data found.

**Sodium hydroxide:**

Assessment: Does not cause skin sensitization.
Remarks: Did not cause allergic skin reactions when tested in humans.

Remarks: For respiratory sensitization:
No relevant data found.

**Germ cell mutagenicity**

Not classified based on available information.

**Components:**

**Sodium hypochlorite:**
Genotoxicity in vitro: Remarks: In vitro genetic toxicity studies were negative in some cases and positive in other cases.
Animal genetic toxicity studies were predominantly negative.

**Sodium hydroxide:**
Genotoxicity in vitro: Remarks: In vitro genetic toxicity studies were negative.

**Carcinogenicity**

Not classified based on available information.

**Components:**

**Sodium hypochlorite:**
Remarks: Did not cause cancer in laboratory animals.

**Sodium hydroxide:**
Remarks: No relevant data found.

**IARC**
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**
No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified based on available information.

**Components:**

**Sodium hypochlorite:**
Effects on fertility: Remarks: For similar material(s):
SAFETY DATA SHEET

Sodium Hypochlorite, 5 - 17%

In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

Effects on fetal development: Remarks: Did not cause birth defects or any other fetal effects in laboratory animals.

Sodium hydroxide:
Effects on fertility: Remarks: No relevant data found.
Effects on fetal development: Remarks: No relevant data found.

STOT-single exposure
Not classified based on available information.

Components:

Sodium hypochlorite:
Assessment: Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.

Sodium hydroxide:
Assessment: Available data are inadequate to determine single exposure specific target organ toxicity.

STOT-repeated exposure
Not classified based on available information.

Repeated dose toxicity

Components:

Sodium hypochlorite:
Remarks: Repeated exposures to dusts of this material are not anticipated to result in systemic toxicity or permanent lung injury; however, excessive exposures may cause less severe respiratory effects.

Sodium hydroxide:
Remarks: Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Aspiration toxicity
Not classified based on available information.

Components:

Sodium hypochlorite:
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.
Sodium hydroxide:
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Sodium hypochlorite:
Toxicity to fish: Remarks: Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).

LC50 (Pimephales promelas (fathead minnow)): 0.22 - 0.62 mg/L
Exposure time: 96 h
Method: Method Not Specified.

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 0.035 mg/L
Exposure time: 48 h
Test Type: flow-through test
Method: OECD Test Guideline 202

M-Factor (Acute aquatic toxicity):
Toxicity to fish (Chronic toxicity): NOEC (Menidia peninsulæ (tidewater silverside)): 0.04 mg/L
Exposure time: 28 d
Test Type: flow-through test
Method: Other guidelines

M-Factor (Chronic aquatic toxicity):
Toxicity to microorganisms: EC50 (activated sludge): 28.7 mg/L

Sodium hydroxide:
Toxicity to fish: Remarks: May increase pH of aquatic systems to > pH 10 which may be toxic to aquatic organisms.

Persistence and degradability

Components:

Sodium hypochlorite:
Biodegradability: Remarks: Biodegradability is not applicable to inorganic substances.

Sodium hydroxide:
Biodegradability: Remarks: Biodegradability is not applicable to inorganic substances.
Bioaccumulative potential

**Components:**

**Sodium hypochlorite:**
Partition coefficient: n-octanol/water  
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Partitioning from water to n-octanol is not applicable.

**Sodium hydroxide:**
Partition coefficient: n-octanol/water  
Remarks: No bioconcentration is expected because of the relatively high water solubility.

Mobility in soil

**Components:**

**Sodium hypochlorite:**
Distribution among environmental compartments  
Remarks: No relevant data found.

**Sodium hydroxide:**
Distribution among environmental compartments  
Koc: 14  
Method: Estimated. Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

Other adverse effects

**Components:**

**Sodium hypochlorite:**
Results of PBT and vPvB assessment  
This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

**Sodium hydroxide:**
Results of PBT and vPvB assessment  
This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues  
AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION:
Composition Information.
All disposal practices must be in compliance with all Federal,
SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG
UN number : UN 1791
Proper shipping name : HYPOCHLORITE SOLUTION
Class : 8
Packing group : II
Labels : 8

IATA-DGR
UN/ID No : UN 1791
Proper shipping name : Hypochlorite solution
Class : 8
Packing group : II
Labels : Corrosive
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851

IMDG-Code
UN number : UN 1791
Proper shipping name : HYPOCHLORITE SOLUTION
(sodium hypochlorite)
Class : 8
Packing group : II
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : yes
Remarks : Stowage category B-Hypochlorites

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
UN/ID/NA number : UN 1791
Proper shipping name : Hypochlorite solutions
Class : 8
Packing group : II
Labels : CORROSIVE
ERG Code : 154
Marine pollutant : yes(sodium hypochlorite)

Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet.
SAFETY DATA SHEET
Sodium Hypochlorite, 5 - 17%

Version: 4.0  Revision Date: 06-14-2021  SDS Number: 10000001223  Date of last issue: 03-06-2020  Date of first issue: 06-14-2021

Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards
- Corrosive to Metals
- Skin corrosion or irritation
- Serious eye damage or eye irritation

SARA 313
- This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know
Sodium hypochlorite 7681-52-9
Sodium hydroxide 1310-73-2

California Prop. 65
This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

International Regulations
Montreal Protocol: Not applicable
Rotterdam Convention (Prior Informed Consent): Not applicable
Stockholm Convention (Persistent Organic Pollutants): Not applicable

The ingredients of this product are reported in the following inventories:

TCSI
- All intentional components are listed on the inventory, are exempt, or are supplier certified.

TSCA
- All substances listed as active on the TSCA Inventory or are not required to be listed.

AICS
- All intentional components are listed on the inventory, are exempt, or are supplier certified.

DSL
- All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

ENCS
- All intentional components are listed on the inventory, are exempt, or are supplier certified.

ISHL
- All intentional components are listed on the inventory, are exempt, or are supplier certified.

KECI
- All intentional components are listed on the inventory, are exempt, or are supplier certified.

PICCS
- All intentional components are listed on the inventory, are exempt, or are supplier certified.

IECSC
- All intentional components are listed on the inventory, are exempt, or are supplier certified.
Sodium Hypochlorite, 5 - 17%

exempt, or are supplier certified.

NZIoC : All intentional components are listed on the inventory, are exempt, or are supplier certified.

CH INV : All intentional components are listed on the inventory, are exempt, or are supplier certified.

TSCA list
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:

Flammability

Health

Instability

Special hazard

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
OSHA P0 : USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / C : Ceiling limit
OSHA P0 / C : Ceiling limit
OSHA Z-1 / TWA : 8-hour time weighted average
US WEEL / STEL : Short-Term TWA

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule;
SAFETY DATA SHEET

Sodium Hypochlorite, 5 - 17%

Version 4.0  Revision Date: 06-14-2021  SDS Number: 10000001223  Date of last issue: 03-06-2020
Date of first issue: 06-14-2021

ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; ECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KEI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 06-14-2021

Olin Corporation (OCAP) urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

US / Z8
EMERGENCY RESPONSE TRAINING AND PROCEDURES

Safety Equipment Carried On Delivery Trucks:
- Emergency Response Guide Book
- Chemical protective suit, chemical protective gloves, googles, hard hat with face shield/chin guard, chemical protective boots, chemical protective gloves and respiratory protection (if applicable)
- Fire extinguisher
- Radio equipment/GPS

Equipment Inspection:
- All Trailers: VIK, UC, P, L inspections per DOT regulations
- All Tractors: "A" Inspection (37 point-critical) annually per DOT regulations

Emergency Training Received By Drivers:
- All contract carriers are to utilize drivers who are compliant and up to date with Hazmat training requirements per DOT 49 CFR 172

Procedures For Chemical Emergencies:
- Drivers are instructed to call 911 (First, if situation warrants)
- Contact Chemtrec (Second)
- Contact OLIN (Third)

Contact For Emergencies:

<table>
<thead>
<tr>
<th></th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-hr Emergency (CHEMTREC)</td>
<td>800-424-9300</td>
</tr>
<tr>
<td>Charles Burgess (Tech Services)</td>
<td>O-702-564-0477, C-209-207-2113</td>
</tr>
<tr>
<td>Drew Sikkema (Plant Mgr SFS)</td>
<td>O-562-692-0540</td>
</tr>
<tr>
<td>Gil Doucet (Plant Mgr Henderson)</td>
<td>C-702-250-8792</td>
</tr>
</tbody>
</table>
EMERGENCY SPILL RESPONSE PLAN

Should a spill or incident occur while at a Customer’s site, the following procedure shall be used:

- If applicable, immediately utilize the on-board spill kit to contain small spills
- Immediately report the spill/incident to National Emergency Response Center. Olin will then be notified and contact customer.
- Driver to notify the Customer at the site.
- Protect the spill site and keep all unauthorized people away and up-wind from the spill site.

EMERGENCY RESPONSE CONTACT PHONE NUMBERS

Emergency Response Agencies (Fire, Law and Medical) 911
National Response Center 800-424-9300

USEFUL EMERGENCY NUMBERS FOR OLIN EMPLOYEES

Dave Clayton
Office 630-243-2285
Cell 331-625-5094

Michelle Stanislawski
Office 630-243-6010
Cell 630-414-5417

Charlie Burgess
Cell 209-207-2113

Downers Grove Dispatch
Office 800-577-3902

Each delivery unit shall have the following Emergency Spill Control Equipment on-board:
- Complete Driver PPE as Olin specified.
- Emergency Spill Kit
- Buckets

* The above items should be inspected on a monthly basis and immediately replaced after any use
Olin 3rd Party Carrier List

Quality Carriers
Brett Richardson
323-351-7483

Quantix Transportation
Alex Gil
832-737-4959

Liquid Transport
Jennifer Dana
843-338-2964
BAY AREA CHEMICAL CONSORTIUM
STANDARD AGREEMENT, PAGE 1 OF 2
BID NO. 13-2024
SUPPLY AND DELIVERY OF SODIUM HYPOCHLORITE 12.5%

I hereby agree to furnish SODIUM HYPOCHLORITE 12.5% identified in the attached bid forms, as solicited by the Bay Area Chemical Consortium (BACC), to one or more of the participating BACC Agencies.

Company: Pioneer Americas LLC is a wholly subsidiary of Olin Corporation
Address: 490 Stuart Road, NE
City, State, ZIP: Cleveland, TN 37312
Phone: (423) 336-4421
Email: OWCMarketing_BidTeam@olin.com
Authorized Representative: Patrick M. Schumacher, VP and President Chlor Alkali Products
Signature: [Signature]
Date: 2/13/24

WE ACKNOWLEDGE RECEIVING ADDENDUM/ADENDA NUMBER _____ THROUGH _____.

SPECIFIC DEVIATIONS:

This box must be checked if bidder has any proposed specific deviations. Per Section 2.12 Proposed Deviations from the Specifications by the Bidder, the absence of a proposed changed in the specifications will hold the bidder strictly accountable to the specifications as described in the bid document, including any addendum.

Describe the specific deviations below. A copy of the proposed specifications must be attached to this Standard Agreement at the time of submission, with bidder’s name clearly shown on each document.

See Attached for Specific Deviations

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
BACC Bid 13-2024 – Sodium Hypochlorite

Olin is the largest producer/supplier of bulk sodium hypochlorite to municipal water treatment in North America and the state of California. We have successfully serviced the requirements of most of the BACC membership at one time or another in recent years. Olin looks forward to negotiating with individual BACC members to develop mutually agreeable terms and conditions for sale of sodium hypochlorite. We are committed to try to comply with the inclusive intent of this bid and shall continue to make all good faith efforts to mutually work individually with members of the BACC on servicing their unique requirements if recommended for award of their business. Since there are some individual requirements that are undisclosed or we may be unfamiliar with, if recommended for bid award, we will need to review and assess these case by case with individual members as advised in the bid. These may possibly include such things as follow:

- Unattended deliveries at unmanned sites to be deemed safe and mutually agreed upon case by case.
- Delivery requirements at new or unfamiliar remote sites requiring specialized metering or non-standard bulk delivery equipment requirements to be assessed and agreed upon case by case. Some member sites may not be serviceable by Olin after sites are reviewed and Olin reserves the right to make that determination.
- Product samples, when required for shipments, would need to be mutually agreed upon so as to provide a safe and secure process for samples to be supplied to protect drivers, site attendants and the environment.
- New delivery sites must successfully complete and meet Olin’s minimum safety and security requirements site questionnaire prior to first scheduled deliveries.

In addition, we would request consideration of the following issues:

- We would like to see the product specifications consistently align with meeting limits in current published NSF STD 60 and AWWA B-300-18 standards for 12.5 weight % sodium hypochlorite (including: pH of 12-14 to better align with free alkaline limits as noted in the bid; 12.5% AvCl minimum be revised to 11.9% AvCl (which equates to 12.5% NaOCl wt%); AvCl in gpl be removed or revised to match desired AvCl wt% and NaOCl wt%). Product is produced in a continuous manufacturing process to these quality certifications and making product to individual specifications by individual customer is not reasonably possible for standard operations. Our product specification and ISO lab analysis is included in the bid.
- We would request “insoluble matter” be removed from individual COA’s reporting as this component is already managed through the “Filtration Limitations” testing noted on page 22. It cannot be analyzed and reported on the COA for every individual load without interrupting.
processes and timely delivery of orders. We have SPC data on regular sampling available upon request.

- Acceptance of orders delivered with a min. 72 hours ARO as a standard and 24 hours in emergencies.
- Acceptance of Olin corporate insurance coverages. Note: Olin Pollution coverage is Time Element Sudden and Accidental coverage and would apply to all awarded BACC members.
- We request the right by written notice to review and recover increases in the cost of products to Seller due to significant unanticipated increases in prevailing market energy costs effecting the costs of raw materials or finished product. Seller to provide reasonable explanations and independent public documentation for any requested price adjustments.
- **Full Truck-load Bulk Shipments** – Bid pricing submitted is for bulk full truck-load, one-stop deliveries. Due to significant cost increases in transportation and fuel costs, additional adjustments for carrier charges for less than truck-load or split shipments may apply individually case by case as follows:
  - Less than full truck-load shipments – Short shipments < 2,000 gals. may incur a $500 freight adder per shipment to the bulk delivered unit price upon invoice.
  - Mini-bulk Shipments – Shipments <1,500 gals. may incur a $800 freight adder per shipment to the delivered unit price upon invoice.

- Shipments of < 700 gals. may not physically be safely serviceable by Olin’s standard bulk tanker equipment. We can review any case by case. Olin reserves rights for final approval of very small aquatic and remote rural sites like Pt Reyes Station, Oakwood Lake Water well sites, City of Morgan Hill well sites, City of Stockton well sites, City of Turlock well sites, Roseville well sites, City of Morgan Hill well sites, DVC power plant, Contra Costa Water District pump stations, Diablo Water District, Pleasant Hill Aquatic, Yuba City swimming pool, Town of Discovery Bay and Dublin San Ramon Services District Reservoir 1A, 10A and 300B pumpstations. These type deliveries typically require specialized delivery equipment and we cannot safely service and meet min. Olin site safety requirements. If, at Olin’s sole discretion, it’s determined they can be safely serviceable with standard bulk delivery equipment, there will be a $2,200/shipment freight surcharge plus stop charges added to base unit pricing per shipment for these specific requirements to cover the high-cost labor-intensive service required.
- Split shipments involving more than one unloading stop per individual shipment may incur multi-stop carrier charges of $75/unloading stop after one free unloading stop per shipment.
STANDARD AGREEMENT, PAGE 2 OF 2
BIDDER INFORMATION

1. Legal Name of Bidder:  
Pioneer Americas LLC is a wholly subsidiary of Olin Corporation

2. Bidder’s Street Address:  
490 Stuart Road, NE, Cleveland, TN 37312

3. Mailing Address:  
490 Stuart Road, NE, Cleveland, TN 37312

4. Business Telephone:  
(423) 336-4421  Fax Number:  (423) 336-4682

5. Type of Supplier:  
☐ Sole Proprietor  ☐ Partnership  ☒ Corporation  ☐ LLC  
If Corporation, indicate State where incorporated:  Virginia

6. Business License Number issued by the City where the Supplier’s principal place of business is located.  
Number: 120821  Issuing City:  Pittsburg, CA

7. Supplier Federal Tax Identification Number:  06-1420850

8. Emergency Contact:  
Name: Chemtrec  
Phone Number:  800-424-9300

9. Order Contact:  
Name: Olin Customer Service  
Address: 16290 Katy Freeway, Ste 600, Houston, TX 77094  
Phone Number:  833-370-3737  Fax Number:  866-449-8036  
Email: CAPVCustomerSvcWest@olin.com

10. References:  
<table>
<thead>
<tr>
<th>Company/Agency Name</th>
<th>Contact Name</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) City of Roseville</td>
<td>Becky Philipp, Purchasing</td>
<td>(916) 746-1110</td>
</tr>
<tr>
<td>2) City of Santa Rosa</td>
<td>Jennifer Myles, Sr. Buyer</td>
<td>(707) 543-3709</td>
</tr>
<tr>
<td>3) Modesto Irrigation District</td>
<td>Daryn Weese, Buyer</td>
<td>(209) 526-7685</td>
</tr>
</tbody>
</table>

11. Chemical Manufacturer’s name and address (if different from Bidder):  
K2 Pure Solutions  
950 Loveridge Road  
Pittsburg, CA 94565
Non-Collusion Affidavit
To Be Executed By Bidder and Submitted With Bid

State of California Tennessee )
} ss.
County of Bradley )

Joy Burris
(Bidder's Authorized Representative)

Pioneer Americas LLC is a wholly subsidiary
of Olin Corporation
(Title of Representative) (Legal Name of Bidder)

foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bid, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the state of California that the foregoing is true and correct.

Signature of: President, Secretary, Manager, Owner, or Representative

Subscribed and sworn to before me this, 11th day of February, 2024

Signature of Notary Public In and For

The County of Bradley,
State of Tennessee

All Signatures Must Be Witnessed By Notary
CERTIFICATE OF LIABILITY INSURANCE

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

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

PRODUCER
MARSH USA, LLC.
1195 Avenue of the Americas
New York, NY 10036
Attn: New York.Certs@marsh.com Fax: 212-948-0500

OLIN CORPORATION
190 CARONDELET PLAZA
SUITE 1530
CLAYTON, MO 63105

CONTACT
NAME:
PHONE (A/C, No. Ext):
FAX (A/C, No.):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE
NAIC #

INSURER A: Old Republic Insurance Company
24417

INSURER B: NA
NA

INSURER C:

INSURER D:

INSURER E:

INSURER F:

COVERAGEs
CERTIFICATE NUMBER: NYC-09645138141
REVISION NUMBER: 10

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

<table>
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<tr>
<th>INSURER</th>
<th>TYPE OF INSURANCE</th>
<th>ADDL/EXCED</th>
<th>POLICY NUMBER</th>
<th>POLICY EFFECT DATES</th>
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<tr>
<td>A</td>
<td>COMMERCIAL GENERAL LIABILITY</td>
<td>X CLAIMS-MADE X OCCUR</td>
<td>MWZY 313962 23</td>
<td>$100,000 SIR Each Occ Applicable'</td>
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<td>AUTOBOMBLE LIABILITY</td>
<td>X ANY AUTO</td>
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<td>07/01/2023 07/01/2024</td>
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<td></td>
<td>WORKERS COMPENSATION</td>
<td>Y/N</td>
<td>N/A</td>
<td>07/01/2023 07/01/2024</td>
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</tbody>
</table>

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

CERTIFICATE HOLDER
CANCeLLATION

Clarin Corporation
190 Carondelet Plaza
Suite 1530
Clayton, MO 63105

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

© 1988-2016 ACORD CORPORATION. All rights reserved.
March 18, 2024

Pioneer Americas LLC is a wholly owned subsidiary of Olin Corporation
Attn: Patrick M. Schumacker
490 Stuart Road, NE
Cleveland, TN 37312

RE: Regional Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 13-2024 for Supply and Delivery of SODIUM HYPOCHLORITE 12.5% and 5.25% (optional bid item) in the Sacramento region.

Dear Mr. Schumacker,

We are pleased to advise you that the bid submitted by Pioneer Americas LLC is a wholly owned subsidiary of Olin Corporation for Bid No. 13-2024 was determined to be the lowest responsive bid for the supply and delivery of SODIUM HYPOCHLORITE 12.5% and 5.25% (optional bid item) in the Sacramento region during the period July 1, 2024 through June 30, 2025.

The participating BACC Agencies from the above regions should be contacting you shortly to discuss entering into contracts with Pioneer Americas LLC is a wholly owned subsidiary of Olin Corporation for their respective facilities.

Bay Area Chemical Consortium sincerely appreciates your efforts and participation in the competitive bid process.

If you have any questions, please free to contact me at jdyment@bacwa.org

Sincerely,

Jennifer Dyment
Assistant Executive Director
BACWA.org
as Coordinating Agency for the Bay Area Chemical Consortium
## Regional Bid Award

<table>
<thead>
<tr>
<th>Section</th>
<th>Sodium Hypochlorite 12.5%</th>
<th>Sodium Hypochlorite 12.5% In 275 gal totes (Optional bid item)</th>
<th>Sodium Hypochlorite 12.5% (Optional bid item)</th>
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<tr>
<td>Description</td>
<td>Central Valley</td>
<td>East Bay</td>
<td>Marin Sonoma</td>
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<tr>
<td>Unit of Measure</td>
<td>gal</td>
<td>gal</td>
<td>gal</td>
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</tbody>
</table>
SIGNATURES

The parties have signed this Contract, effective as of the day and year first stated above.

CONTRACTOR

Under penalty of perjury, I certify that the information provided here is correct.

Signature:  
Joy Burris  
Joy Burris (May 15, 2024 15:13 EDT)

Title: Bleach Marketing Director

Additional Signature (if required):

Title:

CITY OF SACRAMENTO

A Municipal Corporation

APPROVED AS TO FORM:

Signature: Michael Voss
Michael Voss (May 15, 2024 15:40 PDT)

Title: Senior Deputy City Attorney

Reviewed By:

Signature:

Title:

Approved By:

Signature:

Title:

Additional Signature (if required):

Title: