

COUNTY OF ROCKLAND
Department of General Services
Purchasing Division

Contract Award Notification

Title: Chemical – Sodium Hypochlorite-Bulk Delivery

Contract Period: April 1, 2022 through March 31, 2023 w/ 4 one-year options
Extended through March 31, 2024, w/ (3) one-year options
Extended through March 31, 2025, w/ (2) one-year options
Extended through March 31, 2026, w/ one-year options
Extended through March 31, 2027

Original Date of Issue: 3/29/2022

Date of Revision: 12/11/25

BID No: RFB-RC-2022-023

Catalog: Wastewater

Authorized Users: County Agencies, Political Subdivisions

Address Inquiries To:

Name: Michele Phillips
Title: Purchaser II
Phone: 845-364-2984
Fax: 845-364-3809
E-mail: phillipm@co.rockland.ny.us

Description

This contract is to provide Sodium Hypochlorite

| Contract # | Vendor Number | Contractor & Address | Telephone No. |
|------------|---------------|---|---------------|
| BID 22-023 | 0000009669 | Kuehne Chemical Company Inc. 86 North Hackensack Avenue South Kearny, NJ 07032 Contact: Susan K. Anthony santhony@kuehnecompany.com bids@kuehnecompany.com | 973-589-0700 |

COUNTY OF ROCKLAND
DGS – PURCHASING DEPARTMENT
BLDG. A, 6TH FLOOR, 50 SANATORIUM ROAD
POMONA, NY 10970
TELEPHONE NO.: 845-364-3820
FAX NO.: 845-364-3809

VENDOR: Kuehne Chemical Company, Inc.

| LINE NO. | DESCRIPTION | ITEM NUMBER | EST. QTY. PER SHIPMENT | UNIT | ESTIMATED QTY PER YEAR (includes Orangetown) | UNIT PRICE | MANUFACTURER NAME | PRODUCT CODE | Guaranteed Minimum Certified % by weight Available Total Chlorine. Must be listed as a whole number (ie 12.5% =.125) |
|----------|---|-------------|----------------------------------|----------------------------|--|---------------|-------------------------------|---------------------|--|
| 1 | Sodium Hypochlorite 12%-15% NaOCl- As per the attached specifications Hypochlorite Solution by Kuehne Chemical co, JCI Jones Chemicals Inc, Estimated Quantity includes combined 2021 annual usage by the County and Town of Orangetown | 88582770009 | 4,000 plus gallons per truckload | Per Gallon - bulk delivery | 100,000 | \$1.90 | Kuehne Chemical Company, Inc. | Sodium Hypochlorite | 12.5% |

Upon receipt of all required approvals a Contract shall be deemed executed and created with the successful Bidder(s) upon the Commissioner's mailing or electronic communication to the address on the bid of: (i) a Letter of Acceptance; or (ii) a fully executed contract; or (iii) a Purchase Order authorized by the Commissioner

COUNTY OF ROCKLAND - DGS-PURCHASING
BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970
TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

TITLE: Chemical-Sodium Hypochlorite- Bulk Delivery **RFB #: RFB-RC-2022-023**

PURCHASES BY OTHER

LOCAL GOVERNMENTS, SCHOOL DISTRICTS, AND NON PROFIT AGENCIES

As per the New York State General Municipal Law, all political subdivisions of New York State are allowed to make purchases through the resulting contract(s). As per Rockland County Procurement Policy, Non Profit Agencies approved to participate in New York State's Contract Extension Program are authorized to make purchases through the resulting contract(s).

1. The County of Rockland shall make all contract award information available to other political subdivisions and non profit agencies through our website: www.rcpurchasing.com
2. Any other political subdivision or Rockland County non profit agency will issue purchase orders directly to vendors within the specified contract period referencing the County's contract and shall be liable for any payments due on such purchase orders; and shall accept sole responsibility for any payment due.
3. All purchases shall be subject to audit and inspection by the other political subdivisions and Rockland County non profit agencies for which the purchase was made.
4. No officer, board or agency of a county, town, village, or school district shall make any purchase through the County when bids have been received for such purchase by such officer, board or agency, unless such purchase may be made upon the same terms, conditions and specifications at a lower price through the County.
5. All Bidders shall be on notice that as a condition of the award of a County contract, the successful bidder shall accept the award of a similar contract with any other political subdivision in New York State and Rockland County non profit agencies authorized to use New York State's contracts, if called upon to do so. A listing of approved Rockland County non profit agencies is available on the Purchasing Division's website at www.rcpurchasing.com. The County, however, will not be responsible for any debts incurred by the participants pursuant to this or any other agreement.
6. Necessary deviations from the County's specifications in the award of a participant contract, whether such deviations relate to quantities, or delivery points shall be resolved between the successful bidder and the other political subdivisions and Rockland County non profit agencies.

COUNTY OF ROCKLAND - DGS-PURCHASING
 BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970
 TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

| | |
|---|-------------------------------|
| TITLE: Chemical-Sodium Hypochlorite- Bulk Delivery | RFB #: RFB-RC-2022-023 |
|---|-------------------------------|

SPECIFICATIONS

1. SCOPE

1.1. Provide specified Sodium Hypochlorite for the County of Rockland Sewer District #1 located in Orangeburg, NY 10962.

1.1.1. Note: The Town of Orangetown, Orangetown Sewer District #2 may order these chemicals through the County Contract.

2. SITE VISIT

2.1. Bidders are advised to visit the delivery sites specified and the storage tanks to become familiar with the conditions they may encounter when making deliveries. No allowance will be recognized for any claim made due to any difficulties encountered when attempting a delivery because the supplier with whom a contract was executed, failed to ascertain for himself the conditions and circumstances to be encountered during delivery.

2.2. To arrange a site visit to delivery locations for the Rockland County Sewer District #1, 4 Route 340, Orangeburg, NY 10962, contact Richard Hagen, at (845) 365-6111.

2.3. Town of Orangetown contact Michael Webber, Chief Operator, Orangetown Sewer District #2 – 127 Route 303, Orangeburg, NY 10962 - 845-359-6502 ext. 4205.

3. REQUIREMENTS

3.1. Bidder must submit SDS sheets and specifications with their bid.

3.2. Bidder must supply Mfg., Product Code on product being offered (see proposal pages).

3.3. **Guaranteed minimum certified % by weight Available Total Chlorine must be provided with the bid submission.**

3.4. On a bid from an agent, a certificate executed by the manufacturer must be provided, stating the bidder is an authorized agent and that he shall be supplied with sufficient material at all times to satisfy the requirements of this bid.

3.5. All quantities shown are estimates based on previous usage. The successful bidder will be required to furnish quantities even if different than those used whether it is more or less during the term of the contract.

3.5.1.1. The Rockland County Sewer District #1 typically orders Sodium Hypochlorite chemicals during the months of May through November of each year. This contract will be awarded commencing on March 15, 2022 through March 14, 2023 with four (4) one (1) year options available. Option Terms shall be of mutual agreement between the Contractor and the County.

3.5.2. Historical Usage 2021 – County of Rockland, Sewer District #1

3.5.2.1. Sodium Hypochlorite 12%- **50,000** gallons- Estimate 4,000+ gallons per delivery

COUNTY OF ROCKLAND - DGS-PURCHASING
 BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970
 TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

| | |
|---|-------------------------------|
| TITLE: Chemical-Sodium Hypochlorite- Bulk Delivery | RFB #: RFB-RC-2022-023 |
|---|-------------------------------|

3.5.3. Historical Usage 2021 – Town of Orangetown, Orangetown Sewer District #2

3.5.3.1. Sodium Hypochlorite 12% **60,000** gallons

3.6. All contractors and/or bidders will be required to wear hard hats & safety protective equipment while doing work for and/or being on the Rockland County Sewer Dist. # 1 premises. This directive is effective immediately & shall be enforced. No work will be authorized or performed without proper safety protection equipment adhering to the most recent OSHA standards & it is the vendor's responsibility to supply the necessary items of equipment.

3.7. All town and municipality orders must be billed to the requesting town or municipality.

4. APPROVED EQUAL OR EQUIVALENT ITEMS

4.1. Bidder must submit specifications, brochure data and SDS sheets with his bid. Bidders must also include company name, address, contact, and contact telephone number of three locations where the product is being utilized for a minimum of three years (see Certificate of Experience).

4.2. Product offered must meet or exceed the specifications provided. If the application of the product offered and awarded fails to comply with the specifications, the County of Rockland may move to rescind the award of the resulting contract and move to review and award to the 2nd lowest bidder or bidder whose product meets the stated requirements.

5. SAMPLES FOR EQUIVALENT ITEMS

5.1. Samples –Bidder must submit samples to the Purchasing Department for evaluation within five business days of notification from the Rockland County Purchasing Department, unless otherwise specified.

5.1.1. All sample materials must be clearly labeled with the following information:

Bid Number

Bid Item Name

Product Name

Vendor Name

5.1.2. These items will be used for evaluation purposes and will not be returned unless otherwise agreed upon prior to sample submission. The evaluation of these products will be made by the user department based on trials, product review, or experience.

6. DELIVERIES

6.1. The delivery and unloading of the Sodium Hypochlorite shall be performed Monday through Friday between the hours of 7:00 AM and 2:30 PM, unless otherwise specified. Deliveries outside of these times may be denied at the district's discretion, at no additional cost to the County.

COUNTY OF ROCKLAND - DGS-PURCHASING
 BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970
 TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

| | |
|---|-------------------------------|
| TITLE: Chemical-Sodium Hypochlorite- Bulk Delivery | RFB #: RFB-RC-2022-023 |
|---|-------------------------------|

- 6.2. All deliveries must be verified via telephone at least 24 hours prior to arrival at the County of Rockland Facilities. The contact phone number is (845) 365-6111.
- 6.3. Prices must be FOB destination including transportation and delivery charges fully prepaid by the vendor.
- 6.4. Deliveries must be made within 3-5 days of order.
- 6.5. Failure to meet delivery time frame may result in default of bid. The County of Rockland is then permitted to purchase products on the open market and to chargeback differences to the defaulting vendor.
- 6.6. In the event of an emergency, the vendor must have the ability to deliver the product within 48 hours notice at the bid price.
- 6.7. Current and updated material safety data sheets required with orders of chemicals and biologicals must be sent to user locations.
- 6.8. The Sodium Hypochlorite shall be delivered by tank truck. The delivery tank truck must comply with all Federal and State regulations. The tank truck used for delivery must be used exclusively for liquid sodium hypochlorite or it must be washed out from any other chemical prior to loading liquid sodium hypochlorite. A washout slip must be provided with the delivery.
- 6.9. The tank truck used for delivery must be owned/leased by the Contractor. Details must be provided on the **Certificate of Equipment** provided in this bid package. If an alternate tank truck that is not owned/leased by the supplier is required for delivery, the supplier must notify the Sewer District in writing prior to delivery.
- 6.10. Unloading of the Sodium Hypochlorite solution must not begin until the Sewer District supervisory personnel is contacted to check the connection and grants permission to begin the unloading. Any contractor failing to adhere shall be responsible to clean contaminated tank and replace contaminated product. The contractor will also be responsible to provide a temporary alternate system of product delivery while affected tanks are being cleaned. This will all be done at contractor expense.
- 6.11. Rockland County Sewer District must be provided a sample for lab testing of each load delivered to verify product provided is to contracted strength %. Contractor will be notified and asked to proportionally replace or issue proportional credit for any delivery which does not meet minimum strength % as contracted.
- 6.12. Delivery slips must be furnished to the Sewer District's representative on site at the time of delivery. At a minimum, the delivery slip must include the total number of gallons of liquid sodium hypochlorite delivered, scale weights (Lbs, Gross Lbs, Tare, Lbs Net), and

COUNTY OF ROCKLAND - DGS-PURCHASING
 BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970
 TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

| | |
|---|-------------------------------|
| TITLE: Chemical-Sodium Hypochlorite- Bulk Delivery | RFB #: RFB-RC-2022-023 |
|---|-------------------------------|

percent of Total Reducing Substances in the sodium bisulfite solution. If delivery is being split with another customer of the vendor, the truck must be equipped with a working calibrated flow meter measuring gallons loaded.

6.13. During unloading of the liquid sodium hypochlorite, the tank truck must be fitted with a quick-connect female coupling to be compatible with the quick-connect male coupling at the Sewer District's sodium hypochlorite unloading station. NO FLANGE ADAPTERS shall be used by the Contractor during unloading of the liquid sodium hypochlorite. All equipment necessary for the delivery must be provided by the vendor.

6.14. The Contractor shall be responsible for cleanup costs and expenses due to spills or leaks caused by careless unloading procedures or by malfunctioning equipment owned by the Contractor.

7. SITE DAMAGE

7.1. Any damage to buildings, equipment, utilities, finished surfaces, or the property of the County of Rockland resulting from the performance of this contract shall be repaired by the Contractor at the Contractor's expense at no cost to the County of Rockland. Completed repairs shall be accepted and approved by the authorized representative of the County of Rockland.

7.2. Any damage as a result of contractor delivering incorrect product will be the responsibility of the contractor to clean out corrupted tank and replace contaminated product. The contractor will also be responsible to provide a temporary alternate system of product delivery while affected tanks are being cleaned. This will all be done at contractor expense.

8. PRICE ADJUSTMENTS

8.1. The County recognizes this product or service has a price component that may have a commodity with changing costs. The Contractor/Supplier may request a Price Adjustment no more frequently than once each quarter (3-month period).

A Price Adjustment request must be made in writing and include the reason for the request, documentation supporting the request (ie, commodity increases), the current pricing, and the requested revised pricing.

The County will review the Price Adjustment request. If the Price Adjustment is deemed reasonable the Price Adjustment request will be accepted by written acknowledgement. If the request is not accepted the County may entirely reject the request or may counter with revised pricing. In either case the County will provide a written explanation in support of the decision.

The Director of Purchasing may use available indexes (e.g. CPI or PPI) to determine if the requested Price Adjustment is reasonable. Typically, a Price Adjustment that exceeds 5% will not be approved unless very unusual and significant changes have occurred in the industry.

COUNTY OF ROCKLAND - DGS-PURCHASING
 BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970
 TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

| | |
|---|-------------------------------|
| TITLE: Chemical-Sodium Hypochlorite- Bulk Delivery | RFB #: RFB-RC-2022-023 |
|---|-------------------------------|

In the event industry costs decline, the County shall have the right to receive, from the Contractor, a reasonable reduction in prices/pricing that reflect such cost changes in the industry. The County will make a written request to the Contractor for a Price Adjustment in writing with supporting documentation

9. AWARD

- 9.1. Bid will be awarded to the lowest responsible bidder meeting the stated requirements.
- 9.2. The Award analysis will be based on the lowest price per lb of Available Total Chlorine.
- 9.3. The calculation will be based on NaOCl having a specific gravity of 1.2 and a wt. of 10.008.
- 9.4. The calculation used to determine cost per lb of active total chlorine will be calculated as follows:

Cost per gallon multiplied by wt. of NaOCl (10.008) multiplied by % minimum guaranteed Available Total Chlorine as per submission.

Example: % minimum Available Total Chlorine submitted =12.5%

Formula: \$1.00 (price per gallon) X 10.008 X .125= 1.251 lbs per gallon

Divide cost per gallon by cost per lb (\$1.00/1.251) = **\$.80 per lb of Available Total Chlorine**

10. DETAILED SPECIFICATIONS FOR SODIUM HYPOCHLORITE SOLUTION

- **SODIUM HYPOCHLORITE must be NaOCl 12.5%-15% solution**
- **Sodium Hypochlorite must be free from impurities, which would affect its proper usage and enhance its decomposition.**
- **Sodium Hypochlorite shall be a clear, greenish-yellow liquid**
- **Sodium Hypochlorite shall be miscible with cold (20 degrees c) distilled water in all proportions**
- **Chemical requirements of sodium hypochlorite shall comply with the requirements below:**
- **% by weight available chlorine must be no less than 11.5%**
- **% by weight alkali as NaOH 0.3-1.0**
- **Alkali shall give a stabilizing affect to the sodium hypochlorite**
- **The deterioration of hypochlorite solution shall not exceed 10 grams of available chlorine per liter per month when stored in a cool (68degrees F) dark place in its container.**
- **Solubility in water complete**
- **pH 12.5-13.7**
- **Specific Gravity 1.2**

COUNTY OF ROCKLAND - DGS-PURCHASING
BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970
TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

| | |
|---|-------------------------------|
| TITLE: Chemical-Sodium Hypochlorite- Bulk Delivery | RFB #: RFB-RC-2022-023 |
|---|-------------------------------|

- **CONTAINERS**

- Bulk shipments to be delivered into our 5000-gallon tank truck at the plant site in Orangeburg, New York.
- Delivery time is from 7:00 AM - 2:30 PM, Monday through Friday unless another arrangement is made in advance with Chief Operator or Supervising Operator.



86 North Hackensack Avenue,
Kearny, NJ 07032-4675
Tel. 973-589-0700
Fax. 973-589-4866
www.kuehnecompany.com

(This SDS follows the GHS format)

SODIUM HYPOCHLORITE

(15% by volume – 12.5% by weight)

SDS NUMBER: KCC – HYPO - 001

SDS DATE: January 22, 2019

24 HOUR EMERGENCY PHONE NUMBER: (973) 589-0700
Alt. (551) 200-2751
CHEMTREC – (800) 424-9300

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hypochlorite Solution

Chemical Name: Sodium Hypochlorite

CAS Number: 7681-52-9

Common Names: Chlorine Bleach, Soda Bleach

Chemical Formula: NaOCl

Manufacturer: Kuehne Chemical Company, Inc.
86 North Hackensack Avenue
South Kearny, New Jersey 07032-4673
(973) 589-0700 Fax: (973) 589-4866



SECTION 2 – HAZARD IDENTIFICATION

Category 1

Symbol:



Signal Word: Danger

Hazard Statements: May be corrosive to metals
Causes severe skin burns and eye damage
Causes severe eye damage

HMIS HAZARD RATINGS

| | |
|---------------------|---|
| HEALTH | 3 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 2 |
| PERSONAL PROTECTION | |

Based on Nat'l Paint & Coatings Association HMIS system

NFPA HAZARD RATINGS



Chemical not listed. Ratings based on NFPA guidelines

Effects of Overexposure

Acute: Inhalation – Inhalation of vapors is irritating to the respiratory system, may cause throat pain and cough, severe respiratory tract irritation and pulmonary edema.

Eyes – May cause severe irritation, burns, and/or corrosion.
May cause vision impairment, corneal damage and blurred vision.

Skin – May cause severe irritation and burns or dermatitis.
Prolonged skin exposure may cause destruction of the dermis with impairment of the skin to regenerate at site of contact.

Ingestion – Ingestion of high concentrations may cause injuries to, liver, kidneys, central nervous system and gastrointestinal tract pain and inflammation, burns and perforation of the esophagus or stomach.
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea, circulatory collapse, confusion, delirium and coma.



| <u>CAS Number</u> | <u>Name</u> | <u>Common Names</u> |
|-------------------|--------------------------------|---------------------|
| 7681-52-9 | Hypochlorous Acid, Sodium Salt | Sodium Hypochlorite |

Percentage

VOL. 14.25 – 18.75

WT. 11.87 – 15.63

Exposure LimitsPEL: 1 ppm ceiling (as Cl₂)TLV: 1 ppm TWA (as Cl₂)STEL: 1 ppm ceiling (as Cl₂)

IDLH: Not Established

Listed on: - The EINECS inventory, or in compliance with the inventory.
- The TSCA inventory.
- The AICS inventory, or in compliance with the inventory.
- The DSL list.
- The ENCS inventory, or in compliance with the inventory.
- The KECI inventory, or in compliance with the inventory.
- The PICCS inventory, or in compliance with the inventory.
- The IECSC inventory, or in compliance with the inventory.
- The NZIoC inventory, or in compliance with the inventory.

| <u>CAS Number</u> | <u>Name</u> | <u>Common Names</u> |
|-------------------|-------------------------|---------------------|
| 1310-73-2 | Sodium Hydroxide (NaOH) | Caustic Soda, Lye |

Percentage

VOL. 1

WT. 1

Exposure Limits

PEL: 2 ppm ceiling

TLV: 2 ppm ceiling

STEL: Not Established

IDLH: 10 ppm

Listed on: - The TSCA Inventory, or in compliance with the inventory.
- PA Requirement - 3% or greater.
- NJ Requirement - 1% or greater
- This product has not been listed as carcinogenic by the following agencies: IARC, NTP, and OSHA



| <u>CAS Number</u> | <u>Name</u> | <u>Common Names</u> |
|-------------------|------------------------|------------------------|
| 7647-14-5 | Sodium Chloride (NaCl) | Salt |
| | <u>Percentage</u> | <u>Exposure Limits</u> |
| | VOL. >1 | PEL: Not Established |
| | WT. >1 | TLV: Not Established |
| | | STEL: Not Established |
| | | IDLH: Not Established |

| <u>CAS Number</u> | <u>Name</u> | <u>Common Names</u> |
|-------------------|-----------------------------|------------------------|
| 497-19-8 | Carbonic Acid Disodium Salt | |
| | <u>Percentage</u> | <u>Exposure Limits</u> |
| | VOL. >1 | PEL: Not Established |
| | WT. >1 | TLV: Not Established |
| | | STEL: Not Established |
| | | IDLH: Not Established |

SECTION 4 – FIRST AID MEASURES

- Inhalation:** Remove to fresh air. If breathing is difficult, have qualified person administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. **SEEK MEDICAL ATTENTION IMMEDIATELY.**
- Eyes:** OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY AND THEN SEEK MEDICAL ATTENTION. IMMEDIATELY flush eyes with a directed stream of water for at least 15 minutes while forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within one (1) minute is essential to achieve maximum effectiveness. **SEEK MEDICAL ATTENTION IMMEDIATELY.**
- Skin:** Flush thoroughly with cool water under shower while removing contaminated clothing and shoes. Discard non-rubber shoes. Wash clothing before reuse. Continue to flush until medical attention arrives. **SEEK MEDICAL ATTENTION IMMEDIATELY.**



Ingestion: NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed. DO NOT INDUCE VOMITING. Give large quantities of milk. If these are not available, give large quantities of water. If vomiting occurs spontaneously, keep airway clear and give more milk or water. **SEEK MEDICAL ATTENTION IMMEDIATELY.** Avoid vomiting, lavage or acidic antidotes.

Note to Physician

Sodium Hypochlorite is an alkaline corrosive. For exposure by ingestion do not use emesis, lavage or acidic antidotes. Dilute immediately by giving milk, melted Ice cream, beaten egg white, starch paste or antacids such as milk of magnesia, aluminum hydroxide gel or magnesium trisilicate gel. Avoid sodium bicarbonate because of carbon dioxide release. Sodium thiosulfate solution may prove beneficial by reducing unreacted material.

SECTION 5 – FIRE-FIGHTING MEASURES

| | |
|---|---------------|
| Flash Point: | N/A |
| Auto-ignition Temperature: | N/A |
| Flammable Limits in Air - % by Volume - Upper: | N/A |
| Lower: | N/A |
| Sensitivity to Mechanical Impact: | Not Sensitive |
| Sensitivity to Static Discharge: | Not Sensitive |

Extinguishing Media

Use water spray, fog, foam, dry chemical, or carbon dioxide or agents suitable for materials in surrounding fire. Do not use Mono Ammonium Phosphate (MAP) type extinguishers directly on this product.

Fire Fighting Procedures

Use self-contained breathing apparatus and full protective equipment. Acid contamination will produce very irritating fumes similar to chlorine.

Fire and Explosion Hazard

Sodium Hypochlorite or its solutions decompose when heated. Decomposition products may cause containers to rupture or explode. Vigorous reaction is possible with organic materials or oxidizing agents and may result in fire. May release toxic gases.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Steps to be Taken if Material is Released or Spilled

Do not allow spilled material to enter sewers or streams. Flush with water to dilute as much as possible and pump into polyethylene containers for disposal. Avoid heat and contamination with acid materials. Do not use combustible materials such as sawdust to absorb Sodium Hypochlorite Solution.

Ventilation Requirements

Provide good general room ventilation plus local exhaust at points of emission.

SECTION 7 – HANDLING AND STORAGE

Handling Precautions

Do not store adjacent to chemicals that may react if spillage occurs. Comply with DOT regulations when shipped. If closed containers become heated, vent to release decomposition products (mainly oxygen under normal decomposition). Do not mix or contaminate with ammonia, hydrocarbons, acids, alcohols or ethers.

Do Not Reuse Containers: Product residues may remain in containers. All labeled precautions must be observed. Dispose of container in a manner meeting government regulations.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Specific Personal Protective Equipment

Respiratory: NIOSH/MSHA approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Acid gas cartridges may be required if decomposition products are present. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

Eye: Wear chemical safety goggles plus full face shield to protect against splashing when appropriate.

Gloves: Wear impervious gloves such as rubber, neoprene or vinyl.

Other: Wear impervious protective clothing including rubber safety shoes. Eye wash facility and emergency shower should be in close proximity.



SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to light yellow-green.

Odor: Pungent chlorine like odor.

Physical State: Liquid.

pH: 12 @ 100 g/L

| Vapor Pressure: | <u>Temperature °F</u> | <u>mm Hg</u> | <u>PSIA</u> |
|------------------------|-----------------------|--------------|-------------|
| | 48.2 | 3.7 | 0.071 |
| | 60.8 | 8.0 | 0.15 |
| | 68.0 | 12.1 | 0.23 |
| | 89.6 | 31.1 | 0.60 |
| | 118.4 | 100.0 | 1.93 |

Boiling Point: (@760 mm Hg) Decomposes above 110 °C (230 °F)

| Freezing/Melting Point: | <u>Weight %</u> | <u>Freezing Point °F</u> |
|--------------------------------|-----------------|--------------------------|
| | 10 | 7 °F |
| | 12 | - 3 °F |
| | 14 | - 14 °F |

Solubility in Water: 100% (by weight)

Specific Gravity: 1.190 - 1.215 (H₂O = 1)

Odor Threshold (ppm): 0.9 ppm approximate

SECTION 10 – STABILITY AND REACTIVITY

Conditions Contributing to Instability

Strong Oxidizer, stability decreases with concentration, heat, light, decrease in pH and contamination by metals.

Incompatibility

Avoid contamination with heavy metals, reducing agents, organics, ether, ammonia, and acids.

Reacts With: Organics, ammonia and acids.

Hazardous Decomposition Products: Acid fumes, Hydrogen chloride and Chlorine.



Hazardous Polymerization: Material is not known to polymerize.

SECTION 11 – TOXICOLOGICAL INFORMATION

| <u>CAS Number</u> | <u>Name</u> | <u>Common Names</u> |
|------------------------------------|---------------------|---------------------|
| 7681-52-9 | Sodium Hypochlorite | Bleach |
| Acute Oral LD₅₀: | (rat) | 3-5 mg/kg |
| Primary Skin Irritation: | (rabbit) | > 2 mg/kg |

The toxicity and corrosivity of Sodium Hypochlorite is a function of concentration. Industrial grades of higher concentrations than household bleach are more toxic and corrosive.

SECTION 12 – ECOLOGICAL INFORMATION

Aquatic Ecotox Data

| | | | |
|--------------|----------------------------|--------------------|-----------|
| Fish: | LC ₅₀ (96 hr.) | (Bluegill sunfish) | 2.90 mg/L |
| | LC ₅₀ (96 hr.) | (Fathead minnow) | 1.40 mg/L |
| | LC ₅₀ (0.5 hr.) | (Rainbow trout) | 0.90 mg/L |

Biodegradation: This material is inorganic and not subject to biodegradation.

Persistence: This material is believed not to persist in the environment.

Bioconcentration: This material is not expected to bioconcentrate in organisms.

This material is harmful to fish, invertebrates, amphibians, and plants.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method

Reduce with agents such as bisulfites or ferrous salt solutions. Some heat will be produced. Keep on alkaline side and dilute with copious amounts of water. Main end product is salt water. Comply with all applicable governmental regulations.



Product Disposal

Product should be completely removed from containers. Material that cannot be used or chemically reprocessed should be disposed of in a manner meeting government regulations.

SECTION 14 – TRANSPORT INFORMATION

| | |
|----------------------------------|-------------------------------|
| DOT Proper Shipping Name: | Hypochlorite Solutions |
| DOT Hazard Class: | 8 |
| DOT ID Number: | UN1791 |
| DOT Packing Group: | II |
| DOT Hazardous Substance: | RQ 100# (Sodium Hypochlorite) |
| DOT Marine Pollutant: | N/A |
| Additional Description: | N/A |

SECTION 15 – REGULATORY INFORMATION**U.S. Federal Regulations**

Section 311 of The Clean Water Act lists this product as a hazardous substance, which If discharged to water, may require immediate response to mitigate danger to public health and welfare. Spills of 100 pounds or more must be reported to the National Response Center at the following number: 1-800-424-8802

Material is contained on a composite list as required under 101 (14) of CERCLA.

Sodium Hypochlorite Solution is regulated by the USEPA under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as a pesticide product.

Sodium Hypochlorite Solution produced by Kuehne Chemical Company, Inc. is registered with the USEPA under Registration Number 35317-20001.

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



TSCA (Toxic Substances Control Act): This product is not subject to export notification.

CERCLA and SARA/Title III:

| | |
|--------------------|-----------------------------|
| Hazard Categories: | Immediate (Acute) Health: |
| | Reactive Hazard: |
| | Delayed (Chronic) Health: |
| | Fire Hazard: |
| | Sudden Release of Pressure: |

This product is registered with the USEPA as a pesticide as required under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Other Standards

NSF Certification: This product has been classified as an approved drinking water treatment chemical under ANSI/NSF Standard 60 by Underwriter's Laboratories (reference number: MH17612)

USDA Approvals: B-1, D-2, L-1, Q-4 & Fruit and Vegetable washing compounds.

SECTION 16 – OTHER INFORMATION

Prepared By: Kuehne Company's Environmental, Safety & Security Department

Revision D – 1 May 2015

For additional non-emergency health, safety or environmental information, telephone:
(973) 589 - 0700 or write to:

Kuehne Chemical Company, Inc.
86 N. Hackensack Avenue
South Kearny, New Jersey 07032-4673

SDS Legend:

| | |
|---------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| CAS | Chemical Abstracts Service Registry Number |
| CEILING | Ceiling Limit (15 Minutes) |
| OSHA | Occupational Safety and Health Administration |
| PEL | Permissible Exposure Limit (OSHA) |
| STEL | Short Term Exposure Limit (15 Minutes) |
| TLV | Threshold Limit Value (ACGIH) |
| TWA | Time Weighted Average (8 Hours) |



IMPORTANT: The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations.

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge.

NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, OR OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, STABILITY OR OTHERWISE.

This information is not intended to be all-inclusive as to the manner and conditions of handling and storage. Other factors may involve other or use 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 herein shall be construed as a recommendation to infringe any existing patents or violate any federal, state or local laws, rules, regulations or ordinances.

No warranty of any kind is given or implied and Kuehne Chemical Company, Inc. will not be liable for any damages, losses, injuries or consequential damages that may result from the use of or reliance on any information contained herein.

This Safety Data Sheet (SDS) covers the following materials:

Sodium Hypochlorite - Liquid: 15% by volume – 12.5% by weight

REFERENCES:

American National Standard, Z400.1-1993

Chlorine Institute Pamphlet 96 (Sodium Hypochlorite Manual), Edition 4, October 2011

National Institute for Occupational Safety and Health, US Dept. of Health & Human Services, Cincinnati, June, 1994.

Supplier's Safety Data Sheets.

Windholz, Martha, Ed, The Merck Index, 11th ed., Merck and Co, Inc., Rahway, New Jersey, 1989.



WARNING LABEL INFORMATION

Active Ingredient: Sodium Hypochlorite (NaOCl)..... 11.87 – 15.63 % (by weight)
Other Ingredients..... 84.37 – 84.37 %

Total..... 100.0 %

KEEP OUT OF REACH OF CHILDREN

DANGER

Category 1

Symbol:



Signal Word: Danger

Hazard Statements: May be corrosive to metals
Causes severe skin burns and eye damage
Causes severe eye damage

FIRST AID

IF INHALED: Move to fresh air. If person is not breathing, call 911 or an ambulance then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue to rinse eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

HOT LINE NUMBER: 1-800-POISON-1

Have product container or label with you when calling a poison control center or doctor, or going for treatment.



PRECAUTIONARY STATEMENTS HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive may cause severe skin and eye irritation or chemical burns to broken skin. Causes eye damage. Wear safety glasses or goggles and rubber gloves when handling this product. Wash after handling. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated.

Environmental Hazards: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

Physical and Chemical Hazards: STRONG OXIDIZING AGENT. Mix only with water according to label directions. Mixing this product with chemicals (e.g. ammonia, acids, detergents, etc.) or organic matter (e.g. urine, feces, etc.) will release chlorine gas, which is irritating to eyes, lungs and mucous membranes.

DIRECTION FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

Re-formulators and Re-packagers of this product must obtain their own registrations from the United States Environmental Protection Agency (USEPA).

For manufacturing use in the formation of end-use Products

NOTE: This product degrades with age. Use a Chlorine test kit and increase dosage as necessary, to obtain the required level of available Chlorine.

For specific use directions, see KUEHNE Circular for each particular application.

CIRCULAR NUMBER K586A: sanitizers of surfaces (wooden butcher blocks, stainless steel tops, concrete floors, tile walls)

CIRCULAR NUMBER K586B: COMMERCIAL LAUNDRY SANITIZERS

CIRCULAR NUMBER K586C: AGRICULTURAL USES

CIRCULAR NUMBER K586D: DISINFECTION OF DRINKING WATER
(EMERGENCY/PUBLIC/INDIVIDUAL SYSTEMS)

CIRCULAR NUMBER K586E: DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES

CIRCULAR NUMBER K586F: SEWAGE & WASTEWATER EFFLUENT TREATMENT

CIRCULAR NUMBER K586G: COOLING TOWER & EVAPORATIVE CONDENSER WATER



Store this product in a cool dry area away from direct sunlight and heat to prevent deterioration. In case of a spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

IN CASE OF

SPILL OR LEAKAGE: Get protective equipment. Contain spill and pump into marked container for reclamation for disposal. Avoid discharges to sewers and streams. Spills of 100 pounds or more must be reported to the National Response Center at the following number:

State and local regulations may have additional reporting requirements, check with the proper state and local authorities. Wear neoprene or rubber gloves.

IN CASE OF CHEMICAL EMERGENCIES CALL:
24 HOUR EMERGENCY PHONE (973) 589-0700