

BIDDER SUMMARY SHEET

ITB 24-032

CPAC Chemicals - Sodium Hypochlorite and Hydrochloric Acid

Business Name: Alexander Chemical Corporation

Street Address: 7593 S. First Road

City, State, Zip: LaPorte, IN 46350

Contact Name: Cheyenne Haney

Title: Bid Specialist

Phone: (800) 348-8827 or (219) 393-5558 Fax: (219) 402-0592

E-Mail address: bids@alexchem.com

Price Proposal

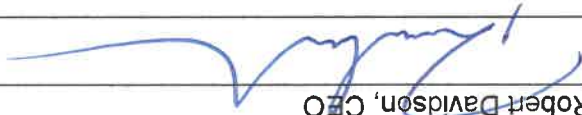
SEE ATTACHED UNIT PRICE SHEET

AUTHORIZATION & SIGNATURE

Name of Authorized Signee:

Robert Davidson, CEO

Signature of Authorized Signee:



Title: CEO

Date: February 19, 2024



Unit Price Sheet
ITB 24-032

CPAC Chemicals - Sodium Hypochlorite and Hydrochloric Acid

Shipping, handling and delivery shall be included as a part of all proposed unit prices.
Provide Unit Pricing for 2024 only.

ITEM	DESCRIPTION	UNIT	Estimated Annual Quantity Needed	UNIT PRICE	TOTAL
A	BULK: Sodium Hypochlorite (18%)	Gallon	15,500	* \$3.499/GAL	* \$54,234.50
B	Hydrochloric Acid 20BE 31% Non-Fuming	Gallon	500	NO BID	
C	Hydrochloric Acid 20BE 35% Non-Fuming	Gallon	500	NO BID	

* Additional \$350.00 Fuel SurchARGE Fee

Proposer: Robert Davidson, CEO

Firm Name: Alexander Chemical Corporation

Signed: _____

Title: CEO

Dated: February 12, 2024

Shipping, handling and delivery shall be included as a part of all proposed unit prices.
Provide Unit Pricing for 2024 only.

ITEM	DESCRIPTION	UNIT	Estimated Annual Quantity Needed	UNIT PRICE	TOTAL
A	BULK: Sodium Hypochlorite (18%)	Gallon	15,500	* \$3.499/GAL	* \$54,234.50
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C	Hydrochloric Acid 20BE 35% Non-Fuming	Gallon	500	NO BID	

* Additional \$350.00 Fuel Surchage Fee

Proposer: Robert Davidson, CEO

Firm Name: Alexander Chemical Corporation

Signed: _____

Title: CEO

Dated: February 12, 2024

ORLAND PARK
CERTIFICATE OF COMPLIANCE

Bidders shall complete this Certificate of Compliance. Failure to comply with all submission requirements may result in a determination that the Bidder is not responsible.

The undersigned Robert Davidson
as CEO
and on behalf of Alexander Chemical Corporation
certifies that Bidder is:

(Enter Title of Person Making Certification)

(Enter Name of Business Organization)

1) A BUSINESS ORGANIZATION: Yes ☒ No ☐

Federal Employer I.D. #: 36-3213468

(or Social Security # if a sole proprietor or individual)

The form of business organization of the Bidder is (check one):

☒ Corporation
☐ LLC
☐ Partnership
☐ Independent Contractor (individual)
☐ Sole Proprietor

Illinois

(State of Incorporation)
December 17, 1982

(Date of Incorporation)

2) AUTHORIZED TO DO BUSINESS IN ILLINOIS: Yes ☒ No ☐

The Bidder is authorized to do business in the State of Illinois.

3) ELIGIBLE TO ENTER INTO PUBLIC CONTRACTS: Yes ☒ No ☐

The Bidder is eligible to enter into public contracts, and is not barred from contracting with any unit of state or local government as a result of a violation of either Section 33E-3, or 33E-4 of the Illinois Criminal Code, or of any similar offense of "bid-rigging" or "bid-rotating" of any state or of the United States.

4) SEXUAL HARASSMENT POLICY COMPLIANT: Yes ☒ No ☐

Please be advised that Public Act 87-1257, effective July 1, 1993, 775 ILCS 5/2-105 (A) has been amended to provide that every party to a public contract must have a written sexual harassment policy in place in full compliance with 775 ILCS 5/2-105 (A) (4) and includes, at

In the same manner as the other provisions of this Agreement, the Bidder will be liable for compliance with applicable provisions of this clause by such subcontractors, and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the Bidder will not utilize any subcontractor declared by the Illinois Human Rights Department to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

provisions will be binding upon such subcontractor.

which any portion of this Agreement obligations are undertaken or assumed, so that such provisions of this Equal Employment Opportunity Clause in every subcontract it awards under Rules and Regulations for Public Contracts; and (VII) include verbatim or by reference the of investigation to ascertain compliance with the Illinois Human Rights Act and Department's accounts and work sites by personnel of the contracting agency and Department for purposes and Regulations for Public Contracts; (VI) permit access to all relevant books, records, information as may from time to time be requested by the Department or the contracting required by the Department's Rules and Regulations for Public Contracts, furnish all relevant Act and Department's Rules and Regulations for Public Contract; (V) submit reports as the Vendor's obligations under the Illinois Human Rights

agreement or understanding, a notice advising such labor organization or representative of or representative of workers with which it has or is bound by a collective bargaining or other ability, or an unfavorable discharge from military service; (IV) send to each labor organization marital status, national origin or ancestry, age, or physical or mental handicap unrelated to will be afforded equal opportunity without discrimination because of race, color, religion, sex, or advertisements for employees placed by it or on its behalf, it will state that all applicants appropriate affirmative action to rectify any such underutilization; (III) ensure all solicitations classifications to determine if minority persons or women are underutilized and will take unrelated to ability, or an unfavorable discharge from military service; (II) examine all job religion, sex, marital status, national origin or ancestry, age, or physical or mental handicap (I) not discriminate against any employee or applicant for employment because of race, color,

The Bidder shall:

During the performance of this Project, Bidder agrees to comply with the "Illinois Human Rights Act", 775 ILCS Title 5 and the Rules and Regulations of the Illinois Department of Human Rights published at 44 Illinois Administrative Code Section 750, et seq.

5) EQUAL EMPLOYMENT OPPORTUNITY COMPLIANT: Yes [X] No []

(I) the illegality of sexual harassment; (II) the definition of sexual harassment under State law; (III) a description of sexual harassment, utilizing examples; (IV) the vendor's internal complaint process including penalties; (V) the legal recourse, investigative and complaint process available through the Department of Human Rights (the "Department") and the Human Rights Commission (the "Commission"); (VI) directions on how to contact the Department and Commission; and (VII) protection against retaliation as provided by Section 6-101 of the Act. (Illinois Human Rights Act). (emphasis added). Pursuant to 775 ILCS 5/1-103 (M) (2002), a "public contract" includes "...every contract to which the State, any of its political subdivisions or any municipal corporation is a party."

a minimum, the following information:

Subcontract" means any agreement, arrangement or understanding, written or otherwise, between the Bidder and any person under which any portion of the Bidder's obligations under one or more public contracts is performed, undertaken or assumed; the term "subcontract", however, shall not include any agreement, arrangement or understanding in which the parties stand in the relationship of an employer and an employee, or between a Bidder or other organization and its customers.

In the event of the Bidder's noncompliance with any provision of this Equal Employment Opportunity Clause, the Illinois Human Right Act, or the Rules and Regulations for Public Contracts of the Department of Human Rights the Bidder may be declared non-responsible and therefore ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and this agreement may be canceled or avoided in whole or in part, and such other sanctions or penalties may be imposed or remedies involved as provided by statute or regulation.

6) ~~PREVAILING WAGE COMPLIANCE:~~ Yes [] No []

~~In the manner and to the extent required by law, this bid is subject to the Illinois Prevailing Wage Act and to all laws governing the payment of wages to laborers, workers and mechanics of a Bidder or any subcontractor of a Bidder bound to this agreement who is performing services covered by this contract. If awarded the Contract, per 820 ILCS 130 et seq. as amended, Bidder shall pay not less than the prevailing hourly rate of wages, the generally prevailing rate of hourly wages for legal holiday and overtime work, and the prevailing hourly rate for welfare and other benefits as determined by the Illinois Department of Labor or the Village and as set forth in the schedule of prevailing wages for this contract to all laborers, workers and mechanics performing work under this contract (available at <https://www2.illinois.gov/idoi/Laws-Rules/CONMED/Pages/Rates.aspx>).~~

~~The undersigned Bidder further stipulates and certifies that it has maintained a satisfactory record of Prevailing Wage Act compliance with no significant Prevailing Wage Act violations for the past three (3) years:~~

~~Certified Payroll. The Illinois Prevailing Wage Act requires any contractor and each subcontractor who participates in public works to file with the Illinois Department of Labor (IDOL) certified payroll for those calendar months during which work on a public works project has occurred. The Act requires certified payroll to be filed with IDOL no later than the 15th day of each calendar month for the immediately preceding month through the Illinois Prevailing Wage Portal, an electronic database IDOL has established for collecting and retaining certified payroll. The Portal may be accessed using this link: <https://www2.illinois.gov/idoi/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx>. The Village reserves the right to withhold payment due to Contractor until Contractor and its subcontractors display compliance with this provision of the Act.~~

7) ~~PARTICIPATION IN APPRENTICESHIP AND TRAINING PROGRAM:~~ Yes [] No []

~~Bidder participates in apprenticeship and training programs applicable to the work to be performed on the project, which are approved by and registered with the United States Department of Labor's Office of Apprenticeship:~~

~~Name of A&T Program:~~

Brief Description of Program: _____

8) TAX COMPLIANT: Yes ☒ No ☐

Bidder is current in the payment of any tax administered by the Illinois Department of Revenue, or if it is not: (a) it is contesting its liability for the tax or the amount of tax in accordance with procedures established by the appropriate Revenue Act; or (b) it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement.

AUTHORIZATION & SIGNATURE:

I certify that I am authorized to execute this Certificate of Compliance on behalf of the Bidder set forth on the Bidder Summary Sheet, that I have personal knowledge of all the information set forth herein and that all statements, representations, that the bid is genuine and not collusive, and information provided in or with this Certificate are true and accurate.

The undersigned, having become familiar with the Project specified in this bid, proposes to provide and furnish all of the labor, materials, necessary tools, expendable equipment and all utility and transportation services necessary to perform and complete in a workmanlike manner all of the work required for the Project.

ACKNOWLEDGED AND AGREED TO:

Signature of Authorized Officer

Robert Davidson

Name of Authorized Officer

CEO

Title

February 19, 2024

Date

REFERENCES

Provide three (3) references for which your organization has performed similar work.

Bidder's Name: Alexander Chemical Corporation

(Enter Name of Business Organization)

1. ORGANIZATION *** SEE ATTACHED ***

ADDRESS

PHONE NUMBER

CONTACT PERSON

YEAR OF PROJECT

2. ORGANIZATION *** SEE ATTACHED ***

ADDRESS

PHONE NUMBER

CONTACT PERSON

YEAR OF PROJECT

3. ORGANIZATION *** SEE ATTACHED ***

ADDRESS

PHONE NUMBER

CONTACT PERSON

YEAR OF PROJECT



ALEXANDER CHEMICAL SODIUM HYPOCHLORITE REFERENCES

Kalamazoo, City of
1415 Harrison Street
Kalamazoo, MI 49007
Contact: Jim Cornell
Phone: 269-337-8644

Grand Rapids
17350 Lake Michigan Drive
West Olive, MI 49460
Contact: Mike Grenier
Phone: 616-456-3927

American Water
650 Madison Street
Gary, IN 46402
Contact: Pete Harretos
Phone: 219-880-2384

Milwaukee Water Works
3000 N Lincoln Memorial Drive
Milwaukee, WI 53211
Contact: Dan Weik
Phone: 414-286-2658

7593 South First Road La Porte, IN 46350
Telephone: (219) 393-5558 Toll Free: (800) 348-8827 Fax: (219) 393-5364

ORLAND PARK



INSURANCE REQUIREMENTS

Please provide a policy Specimen Certificate of Insurance showing current coverage's along with this form

WORKERS' COMPENSATION & EMPLOYER LIABILITY

Full Statutory Limits - Employers Liability
 \$500,000 - Each Accident \$500,000 - Each Employee
 \$500,000 - Policy Limit
 Waiver of Subrogation in favor of the Village of Orland Park

AUTOMOBILE LIABILITY (ISO Form CA 0001)

\$1,000,000 - Combined Single Limit Per Occurrence
 Bodily Injury & Property Damage

GENERAL LIABILITY (Occurrence basis) (ISO Form CG 0001)

\$1,000,000 - Combined Single Limit Per Occurrence

Bodily Injury & Property Damage

\$2,000,000 - General Aggregate Limit

\$1,000,000 - Personal & Advertising Injury

\$2,000,000 - Products/Completed Operations Aggregate

Additional Insured Endorsements: (not applicable for Goods Only)

ISO CG 20 10 or CG 20 26

and

CG 20 01 Primary & Non-Contributory

Blanket Waiver of Subrogation in favor of the Village of Orland Park

☐ CG 20 37 Additional Insured - Completed Operations (provide if box is checked)

In addition to the above, please provide the following coverage, if box is checked.

LIABILITY UMBRELLA (Follow Form Policy)

\$1,000,000 - Each Occurrence \$1,000,000 - Aggregate

\$2,000,000 - Each Occurrence \$2,000,000 - Aggregate

Other:

EXCESS MUST COVER: General Liability, Automobile Liability, Employers' Liability

PROFESSIONAL LIABILITY

\$1,000,000 Limit - Claims Made Form, Indicate Retroactive Date

\$2,000,000 Limit - Claims Made Form, Indicate Retroactive Date

Other:

Deductible not-to-exceed \$50,000 without prior written approval

BUILDERS RISK

Completed Property Full Replacement Cost Limits - Structures under construction

ENVIRONMENTAL IMPAIRMENT/POLLUTION LIABILITY

\$1,000,000 Limit for bodily injury, property damage and remediation costs

resulting from a pollution incident at, on or mitigating beyond the job site

CYBER LIABILITY

\$1,000,000 Limit per Data Breach for liability, notification, response,

credit monitoring service costs, and software/property damage

Any insurance policies providing the coverages required of the Consultant, excluding Professional Liability, shall be specifically endorsed to identify "The Village of Orland Park, and their respective officers, trustees, directors, officials, employees, volunteers and agents as Additional Insureds on a primary/non-contributory basis with respect to all claims arising out of operations by or on behalf of the named insured." The required

Additional Insured coverage shall be provided on the Insurance Service Office (ISO) CG 20 10 or CG 20 26 endorsements or an endorsement at least as broad as the above noted endorsements as determined by the Village of Orland Park. Any Village of Orland Park insurance coverage shall be deemed to be on an excess or contingent basis as confirmed by the required (ISO) CG 20 01 Additional Insured Primary & Non-Contributory Endorsement. The policies shall also contain a Waiver of Subrogation in favor of the Additional Insureds in regard to General Liability and Workers' Compensation coverage. The certificate of insurance shall also state this information on its face. Any insurance company providing coverage must hold an A-, VII rating according to Best's Key Rating Guide. Each insurance policy required shall have the Village of Orland Park expressly endorsed onto the policy as a Cancellation Notice Recipient. Should any of the policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. Permitting the contractor, or any subcontractor, to proceed with any work prior to our receipt of the foregoing certificate and endorsements shall not be a waiver of the contractor's obligation to provide all the above insurance.

Consultant agrees that prior to any commencement of work to furnish evidence of insurance coverage providing for at minimum the coverages, endorsements and limits described above directly to the Village of Orland Park, 14700 S. Ravinia Avenue, Orland Park, IL 60462. Failure to provide this evidence in the time frame specified and prior to beginning of work may result in the termination of the Village's relationship with the contractor.

ACCEPTED & AGREED THIS 19th DAY OF February, 2024

Signature

Robert Davidson, CEO

Printed Name & Title

Authorized to execute agreements for:

Alexander Chemical Corporation

Name of Company

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Or		Locations Of Covered Operations
Information required to complete this Schedule, if shown in the Declarations.		

A. Section II - Who Is An Insured is intended to include as an additional insured, the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 20 26 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - DESIGNATED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)

Information required to complete this Schedule -- if not shown above, will be shown in the Declarations.

Section II - Who Is An Insured: is time period to include as an additional insured the person(s) shown in the Schedule. It includes with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf:

A. In the performance of your ongoing operations; or

B. In connection with your premises owned by or rented to you.



THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS -AUTOMATIC STATUS WHEN REQUIRED IN CONSTRUCTION AGREEMENT WITH YOU

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. Section II - Who Is An Insured is amended to

include as an additional insured any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured.

However, the insurance afforded to such additional insured:

1. Only applies to the extent permitted by law; and

2. Will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

A person's or organization's status as an additional insured under this endorsement ends when your operations for that additional insured are completed.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to:

1. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render,

any professional architectural, engineering or surveying services, including:

- a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

2. "Bodily injury" or "property damage" occurring after:

- a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 20 37 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED - OWNERS, LESSEES OR
CONTRACTORS - COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization	Location And Description Of Completed Operations
Information required to complete this Schedule, if shown above, will be shown in the Declarations.	

Section II - Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury," "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".





CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
06/30/2023

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 SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. If certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Aon Risk Services Central, Inc.
Chicago IL office
200 East Randolph
Chicago IL 60601 USA

INSURED
Alexander Chemical Corp
7593 S. First Road
LaPorte IN 46350 USA

INSURER A:	Allied World Assurance Company (US) Inc	19489
INSURER B:	National Union Fire Ins Co of Pittsburgh	19445
INSURER C:	Commerce & Industry Ins Co	19410
INSURER D:	Everest Indemnity Insurance Company	10851
INSURER E:		
INSURER F:		

COVERAGES
CERTIFICATE NUMBER: 570100484021
REVISION NUMBER:

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

Limits shown are as requested

INSURANCE	TYPE OF INSURANCE	ADDL SUBR	INSUR NUMBER	POLICY EFF. DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS
B	COMMERCIAL GENERAL LIABILITY		GL4611644	07/01/2023	07/01/2024	EACH OCCURRENCE \$5,000,000 DAMAGE TO RENTED PREMISES (Per occurrence) \$1,000,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$5,000,000 GENERAL AGGREGATE \$5,000,000 PRODUCTS - COMP/OP AGG \$5,000,000
B	AUTOMOBILE LIABILITY		CA 7742278	07/01/2023	07/01/2024	COMBINED SINGLE LIMIT \$5,000,000 (Per accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Comp & Coll Ded
D	UMBRELLA LIAB		EF4CU01720231	07/01/2023	07/01/2024	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		WC014590635	07/01/2023	07/01/2024	PER STATUTE OTH- E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000 AGGREGATE LIMIT \$15,000,000 Per occurrence limit \$15,000,000
A	Contractors Pollution Liability		03115086	09/01/2021	09/01/2021	Claims Made Pollution

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

CERTIFICATE HOLDER

CANCELLATION

Alexander Chemical Corporation
7593 S First Road
Kingsbury Industrial Park
LaPorte IN 46350 USA

AUTHORIZED REPRESENTATIVE

Aon Risk Services Central Inc

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.



I, Amy Bergren, do hereby certify that I am a duly elected, qualified and acting Assistant Secretary of Carus Group Inc., a Delaware corporation, and as such have custody of the corporate records and seal.

I hereby further certify that the following resolutions were duly adopted by Unanimous Consent of the Board of Directors of Carus Group Inc. effective 1 January 2019 as of the date below pertaining to persons authorized to act for Carus Group Inc. and its member companies.

WHEREAS, the Board desires to grant to certain Carus Group officers specific spending authority necessary to the day-to-day performance of their respective functions;

IT IS FURTHER RESOLVED, that the Board hereby approves, for the purpose of signing sales contracts, municipal bids, purchase requisitions, capital expenditures, raw material supply contracts, and other day-to-day contracts and obligations of the Company, the officer spending authorizations included in the document titled "CARUS GROUP INC. AUTHORIZATION LEVELS - 1 January 2019," attached hereto as Exhibit 2.

In witness whereof I have hereunto set my hand and affixed the seal of the corporation on this 19th day of February 2024.

Amy Bergren
Asst. Secretary

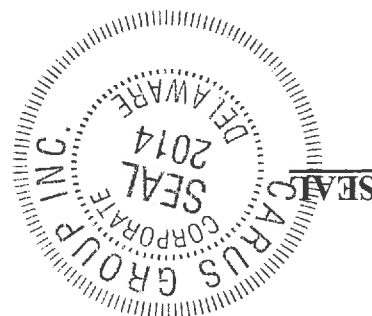


EXHIBIT 2
CARUS GROUP INC.
AUTHORIZATION LEVELS – 1 JANUARY 2019 ***

TITLE	REVENUE CONTRACTS**
Chairman	\$5,000,000
Chief Executive Officer & President *	\$5,000,000
Vice President, CFO *	\$3,000,000
Vice President, Operations	-
Global VP, Sales & Mktg., Europe	\$1,500,000
Vice Pres., Sec. & General Counsel	-
VP, Human Resources	-
VP, Corporate Development	-
VP, Finance	-
Director, Global Strategic Sourcing	-
Supply Chain Manager - EAME	-
M. Blouke Carus Fellow, VP Carus	-
Tech	-
Plant Manager	-
Business Development Director	-
Director of Finance/IT	-
Director of Sales	\$1,000,000
Global Product Manager	\$ 500,000
Director of Marketing/EHSS	-
Bid Channel Manager	\$ 200,000

NOTES:

*ANY COMMITMENT FOR THE PURCHASE OR LEASE OF GOODS OR SERVICES IN EXCESS OF A 12-MONTH PERIOD MUST BE APPROVED BY THE CHIEF EXECUTIVE OFFICER & PRESIDENT OR CFO OF CARUS GROUP INC.

**ANY CONTRACT OR BID THAT IS EFFECTIVE FOR LONGER THAN ONE YEAR, REGARDLESS OF REVENUE VOLUME, REQUIRES THE SIGNATURE OF THE CHIEF EXECUTIVE OFFICER & PRESIDENT OR CFO OF CARUS GROUP INC.

ANY CONTRACT OR BID THAT IS EFFECTIVE FOR MORE THAN ONE YEAR IS SUBJECT TO AN ANNUAL PRICE REVIEW, REGARDLESS OF ESCALATION CLAUSES.

***THE APPROVALS AUTHORIZED HEREIN SHALL APPLY WITH EQUAL EFFECT TO ALL MEMBER COMPANIES OF CARUS GROUP INC., (i.e., CARUS CORPORATION, CARUS CHEMICAL COMPANY, CARUS EUROPE, CIRCLE TRANSPORT INC., ALEXANDER CHEMICAL CORPORATION).

File Number

5293-574-1



To all to whom these Presents Shall Come, Greeting:

I, Alexi Giannoulas, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

ALEXANDER CHEMICAL CORPORATION, A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON DECEMBER 17, 1982, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

In Testimony Whereof, I hereto set
my hand and cause to be affixed the Great Seal of
the State of Illinois, this 4TH
day of OCTOBER A.D. 2023 .



Authentication #: 2327703846 verifiable until 10/04/2024
Authenticate at: <https://www.ilsos.gov>

Alexi Giannoulas
SECRETARY OF STATE



Alexander Chemical Corporation

Alexander Chemical Corporation is a chemical distribution company that began in 1950. We are a 73 year old proven company that comprises of geography in the Midwest including Northern Illinois, Northern Indiana, Southern to Middle Michigan and Southern Wisconsin.

The Alexander distribution model is a distribution company that has its facility in Kingsbury, IN. Our Kingsbury facility is a railcar to drum packaging facility for commodity chemical and blending efforts into the water and industrial sectors of our geography. We also are the premier gas packaging facility in the Midwest. Alexander Chemical Corporation, packages Chlorine, Sulfur Dioxide, Anhydrous Ammonia and Anhydrous Hydrogen Chloride. We also have substantial supplier partnerships that enable Alexander to have security of supply and technical as well as logistical support for third party supply of chemicals.

We have our own fleet of trucks and bulk trailers to provide the logistical foundation of servicing our customers. We can utilize third party logistical companies to provide necessary support to our customers. These freight companies undergo a complete analysis to be confirmed to use in our system to be in compliance and be considered to be in good standing within the freight industry. We use only reputable companies outside our own fleet to deliver safely and on time to our customers.

Alexander Chemical Corporation brings over 70 years of reputable business practices to the industry and a management team that has vast experience in the chemical industry. We have proven safety, operational and quality practices that are considered to be elite in the chemical industry. Alexander Chemical Corporation has been audited and recognized to be in good standing with the National Association of Chemical Distributors (NACD). We are also recognized as an NSF accredited organization to the water treatment industry. We are a Woman Business Owned organization as part of customer diversity programs.

With over many years of chemical distribution, we maintain the ability to inventory, package and deliver to any of your facilities within our geography with the service required to maintain your operational standards. Our service is known and well placed in this industry by the years of service we have provided to this geography and the industries we serve.

As part of our company philosophy, Alexander Chemical Corporation, has multiple supply arrangements with only reputable companies to handle security of supply for inventory assurance to our customers. We utilize multiple supply arrangement which give assurances to our customers the ability to supply product in any business conditions that arise.

7593 South First Road La Porte, IN 46350
Telephone: (219) 393-5558 Toll Free: (800) 348-8827 Fax: (219) 393-5364



As part of our quality assurance program, Alexander Chemical Corporation, has a documented quality process and welcome customer audits from current customers as well as potential customers to evaluate our standard business practices to give assurance that we conduct our business in a quality manner.

Alexander Chemical Corporation, is a complete chemical distributor that brings value, integrity, and experience to the market place in a manner that customers have believed in since 1950.

A blue ink signature of Robert Davidson, CEO, written over a horizontal line.

Robert Davidson, CEO

7593 South First Road La Porte, IN 46350
Telephone: (219) 393-5558 Toll Free: (800) 348-8827 Fax: (219) 393-5364

ALEXANDER ALEXANDER CHEMICAL CORPORATION	TITLE: Equal Opportunity Employment Policy	SCOPE: Alexander Chemical Corporation
	REVIEW DATE: 12/31/2022	REVISION NO.: 1
Page 1 of 2	UPDATED BY: Bethany Brantley EFFECTIVE DATE: 01/01/2020	APPROVAL: SUPERSEDES: 05/04/2009

1.0 Purpose: To inform employees that Alexander Chemical Corporation is an equal opportunity employer and the procedure employees must follow in order comply. It is the policy of Alexander Chemical Corporation to comply with all regulation and guidance issued by the Equal Opportunity Commission (EEOC).

2.0 Scope: This policy applies to all Alexander Chemical Corporation employees.

3.1 Definitions:

Qualified individual: An individual who, with or without reasonable accommodation, can perform the essential functions of the employment position that such individual holds or desires.

4.0 Responsibilities: HR Department is responsible for administering and implementing this policy. Managers and supervisors are responsible following this procedure. All employees must cooperate with all investigations.

5.0 Requirements/Policy:

5.1 Alexander Chemical Corporation is an Equal Opportunity employer that does not discriminate on the basis of actual or perceived, race, creed, color, religion, alienage or national origin, ancestry, citizenship status, age, disability or handicap, sex, marital status, veteran status, sexual orientation, gender identity, genetic information, arrest record, or any other characteristic protected by applicable federal, state or local laws. Our management team is dedicated to this policy with respect to any and all employment decisions, including but not limited to, recruitment, hiring, placement, promotion, transfer, discipline, termination, lay-off, leave of absence, compensation, benefits, employee activities and general treatment during employment.

5.2 The Company's objective in hiring, promotion and other employment decisions is to obtain the best qualified individuals for specific positions by virtue of job-related standards including education, training, experience and other qualifications. Placement decisions are based solely on each individual's qualifications for the position being filled.

5.3 The Company will endeavor to make a reasonable accommodation to the known physical or mental limitations of qualified employees with disabilities unless the accommodation would impose an undue hardship on the operation of our business. If you need assistance to perform your job duties because of a physical or mental condition, please let your supervisor know. You also can contact the HR Department.

5.4 The Company will endeavor to accommodate the sincere religious beliefs of its employees to the extent such accommodation does not pose an undue hardship on the Company's operations. If you wish to request such an accommodation, please speak to the employee's supervisor or HR Department. Any employee with questions or concerns about equal

	TITLE: Harassment	REVIEW DATE: 12/31/2022
	SCOPE: Alexander Chemical Corporation	REVISION NO.: 3
Page 1 of 4	UPDATED BY: Bethany Brantley	EFFECTIVE DATE: 01/01/2020
CONTROL NO.: ADM103	APPROVAL:	SUPERSEDES: HRS-056 10/25/2019

ALEXANDER ALEXANDER CHEMICAL CORPORATION		Page 2 of 4	CONTROL NO.: ADM103
TITLE: Harassment		SCOPE: Alexander Chemical Corporation	APPROVAL:
REVIEW DATE: 12/31/2022	REVISION NO.: 3	EFFECTIVE DATE: 01/01/2020	SUPERSEDES: HRS-056
		10/25/2019	

disability, medical condition, military and veteran status or any other basis protected by applicable federal, state and local laws. Alexander Chemical Corporation is committed to maintaining a work environment that is free of discrimination, harassment or retaliatory conduct. In keeping with this commitment, Alexander Chemical Corporation will not tolerate any type of harassment or retaliatory conduct toward any employees by anyone, including any manager, supervisor, employee, vendor, client or customer of any of the companies. Employees are also prohibited from discriminating against, harassing or directing any retaliatory conduct toward other employees or others with whom they come in contact as an employee of any Carus Group company.

5.2

Like all other forms of harassment, Alexander Chemical Corporation prohibits any type of sexual harassment. The following are examples of conduct that may constitute sexual harassment and must not occur: unwelcome sexual propositions; suggestive sexual comments; sexually oriented jokes; any and all sexual gestures; the display of sexually explicit pictures or other materials; e-mails, documents or other communications containing sexual comments or graphics; or similar unwelcome physical conduct or contact. Sexual harassment can occur in a variety of circumstances. The victim as well as the harasser may be a woman or a man. The victim does not have to be of the opposite sex. The victim does not have to be the person harassed but could be anyone affected by the offensive conduct. The harasser's conduct must be unwelcome. In addition, the harassing conduct need not be motivated by sexual desire to be considered sexual harassment.

5.3

Like all other forms of harassment or discrimination, Alexander Chemical Corporation also prohibits harassment, retaliation or discrimination based on a person's sexual orientation, gender, gender identity or gender expression. Examples include, but are not limited to, anti-LGBTQ language or actions, intentional misuse of a transgender individual's name or pronouns, improper treatment of an individual because of their sexual orientation or gender identity.

5.4

Reporting Harassment: Any employee who feels subjected to harassment, retaliation or discrimination as described in this policy should immediately report it to their immediate supervisor and to Human Resources. If an employee does not feel that he or she can adequately discuss allegations of harassment, retaliation or discrimination with his or her immediate supervisor, the employee should report the allegations to a higher-level supervisor or manager and to Human Resources. Any supervisor or manager who becomes aware of any sexual or any other

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type of harassment, retaliation or discrimination should immediately advise Human Resources. Reports will be investigated promptly and thoroughly, and appropriate action taken. If a report of an employee's violation of the policy has merit, disciplinary action will be taken against the offender, up to and including termination. To the extent reasonably possible, confidentiality with respect to reports and related investigations will be maintained. Retaliation by a supervisor or manager against any employee for reporting harassment or discrimination or for providing information in support of such a report in the course of an investigation is unlawful and prohibited and may result in disciplinary action up to and including termination.

5.5

Resolution Outside Alexander Chemical Corporation: The purpose of

this policy is to establish prompt, thorough and effective procedures for responding to every complaint and incident so that problems can be identified and remedied internally. However, an employee has the right to contact the Equal Employment Opportunity Commission (EEOC) about filing a formal complaint. A complaint with the EEOC must be filed within 300 days. Where the employing entity has an effective sexual harassment policy in place and the complaining employee fails to take advantage of that policy and allow the employer an opportunity to address the problem, such an employee may, in certain cases, lose the right to further pursue the claim against the employer. An employee, who is suddenly transferred to a lower paying job or passed over for promotion after filing a complaint with IDHR or EEOC, may file a retaliation charge, also due within 180 days (IDHR) or 300 days (EEOC) of the alleged retaliation. An employee who has been physically harassed or threatened while on the job may also have grounds for criminal charges, such as assault or battery.

- United States Equal Employment Opportunity Commission (EEOC) Chicago: 800-669-4000 Chicago TTY: 800-869-8001

6.0 Revision History:

Revision Number	Revision Date	Description of Change	Revised By
0 (Original)			
1	11/2016	Changed Company Name, reformatted, added wording to 3.1 & 5.0	K. Pakula
2	10/2019	Added definitions, and added section 5.5	G. Theiss, S. Stoner
3	01/01/2020	Changed to Alexander Chemical specific policy	B. Brantley

ALEXANDER

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ALEXANDER
ALEXANDER CHEMICAL CORPORATION

Definitions: As used in this ADA policy, the following terms have the indicated meaning:

- **Disability:** A physical or mental impairment that substantially limits one or more major life activities of the individual, a record of such an impairment, or being regarded as having such an impairment.
- **Major life activities:** Term includes caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating and working.
- **Major bodily functions:** Term includes physical or mental impairment such as any physiological disorder or condition, cosmetic disfigurement or anatomical loss affecting one or more body systems, such as neurological, musculoskeletal, special sense organs, respiratory (including speech organs), cardiovascular, reproductive, digestive, genitourinary, immune, circulatory, hemic, lymphatic, skin and endocrine. Also covered are any mental or psychological disorders, such as intellectual disability (formerly termed "mental retardation"), organic brain syndrome, emotional or mental illness and specific learning disabilities.
- **Substantially limiting:** In accordance with the ADA's final regulations, the determination of whether an impairment substantially limits a major life activity requires an individualized assessment, and an impairment that is episodic or in remission may also meet the definition of disability if it would substantially limit a major life activity when active. Some examples of these types of impairments may include epilepsy, hypertension, asthma,

2.0 Scope: Alexander Chemical Corporation

Purpose: It is the policy of Alexander Chemical Corporation to comply with all federal and state laws concerning the employment of persons with disabilities and to act in accordance with regulations and guidance issued by the Equal Employment Opportunity Commission (EEOC). Furthermore, it is the company policy not to discriminate against qualified individuals with disabilities in regard to application procedures, hiring, advancement, discharge, compensation, training or other terms, conditions and privileges of employment. The Americans with Disabilities Act (ADA) and the Americans with Disabilities Amendments Act (ADAAA) are federal laws that require employers with 15 or more employees to not discriminate against applicants and individuals with disabilities and, when needed, to provide reasonable accommodations to applicants and employees who are qualified for a job, with or without reasonable accommodations, so that they may perform the essential job duties of the position.

		TITLE: Americans with Disabilities Act (ADA)	
SCOPE: Alexander Chemical Corporation		REVISION NO.: 2	
REVIEW DATE: 12/31/2022		EFFECTIVE DATE: 01/01/2020	
CONTROL NO.: ADM100		APPROVAL:	
SUPPERSEDES: 08/01/2016		UPDATED BY: Bethany Brantley	

4.0

Responsibilities: HR Department is responsible for administering and implementing this policy, including the resolution of reasonable accommodation, safety/direct threat and undue hardship issues.

- **Direct threat:** A significant risk to the health, safety or well-being of individuals with disabilities or others when this risk cannot be eliminated by reasonable accommodation.
- **Qualified individual:** An individual who, with or without reasonable accommodation, can perform the essential functions of the employment position that such individual holds or desires.
- **Reasonable accommodation:** Includes any changes to the work environment and may include making existing facilities readily accessible to and usable by individuals with disabilities, job restructuring, part-time or modified work schedules, telecommuting, reassignment to a vacant position, acquisition or modification of equipment or devices, appropriate adjustment or modifications of examinations, training materials or policies, the provision of qualified readers or interpreters, and other similar accommodations for individuals with disabilities.
- **Undue hardship:** An action requiring significant difficulty or expense by the employer. In determining whether an accommodation would impose an undue hardship on a covered entity, factors to be considered include:
 - The nature and cost of the accommodation
 - The overall financial resources of the facility or facilities involved in the provision of the reasonable accommodation, the number of persons employed at such facility, the effect on expenses and resources, or the impact of such accommodation on the operation of the facility.
 - The overall financial resources of the employer, the size, number, type and location of facilities.
 - The type of operations of the company, including the composition, structure and functions of the workforce, administrative or fiscal relationship of the particular facility involved in making the accommodation to the employer.
- **Essential functions of the job:** Term refers to those job activities that are determined by the employer to be essential or core to performing the job; these functions cannot be modified.

		Page 2 of 3	
TITLE: Americans with Disabilities Act (ADA)		SCOPE: Alexander Chemical Corporation	
REVIEW DATE: 12/31/2022		REVISION NO.: 2	
APPROVAL:		UPDATED BY: Bethany Brantley	
CONTROL NO.: ADM100		SUPERSEDES: 08/01/2016	

Revision Number	Revision Date	Description of Change	Revised By
0 (Original)	01/2007	Developed	
1	08/01/2016	Revised in total based on statute.	Karen Shinnick
2	01/01/2020	Updated – Alexander Specific	B. Brantley

6.0 Revision History:

When an individual with a disability requests accommodation and can be reasonably accommodated without creating an undue hardship or causing a direct threat to workplace safety, he or she will be given the same consideration for employment as any other applicant. Applicants who pose a direct threat to the health, safety and well-being of themselves or others in the workplace when the threat cannot be eliminated by reasonable accommodation will not be hired.

Alexander Chemical Corporation will reasonably accommodate qualified individuals with a disability so that they can perform the essential functions of a job unless doing so causes a direct threat to these individuals or others in the workplace and the threat cannot be eliminated by reasonable accommodation or if the accommodation creates an undue hardship to Alexander Chemical Corporation. Contact human resources (HR) with any questions or requests for accommodation.

All employees are required to comply with the company's safety standards. Current employees who pose a direct threat to the health or safety of themselves or other individuals in the workplace will be placed on leave until an organizational decision has been made in regard to the employee's immediate employment situation.

Individuals who are currently using illegal drugs are excluded from coverage under the company ADA policy.

The HR department is responsible for implementing this policy, including the resolution of reasonable accommodation, safety/direct threat and undue hardship issues.

5.0 Requirements/Policy:

		CONTROL NO.: ADM100	
TITLE: Americans with Disabilities Act (ADA)		APPROVAL:	
SCOPE: Alexander Chemical Corporation		UPDATED BY: Bethany Brantley	
REVIEW DATE: 12/31/2022		EFFECTIVE DATE: 01/01/2020	
REVISION NO.: 2		SUPERSEDES: 08/01/2016	

Chemical Properties:

Chemical formula: NaOCl

Molecular weight: 74.44

Appearance: Bright yellow to yellow-green liquid

Odor: Chlorine odor

pH: 12.5 - 13.5

Solution Strength	Available Chlorine by % Volume	Available Chlorine by % Weight	Specific Gravity @ 60°F
	18.7% – 20.2%	15% - 16%	1.252 – 1.269
Excess Alkalinity (Typical) *	NaOH%	NaOH Grams/Liter	
	0.3% - 0.5%	3.0gpl – 5.0gpl	

* Excess Alkalinity on finished product is customized to specific customer requirements.

Physical Properties:

Boiling Point, °F: > 214 @ 15.0 Weight % Available Chlorine

Freezing Point, °F: - 33 @ 15.0 % Weight % Available Chlorine

Solubility in Water: Complete

NSF International maximum use for 15.0 Weight% Available Chlorine: 67 milligrams per liter

Manufactured by:

Alexander Chemical Corporation

Kingsbury Industrial Park

Kingsbury, Indiana 46345

800/348-8827



Certified to
NSF/ANSI/CAN 60

Maximum Usage
Level: 67mg/L

1. Identification

Product identifier Sodium hypochlorite solution - sodium hypochlorite
Other means of identification Not available.
Recommended use Primarily used as a water treatment chemical as a disinfectant. Also used as a bleaching agent.
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor Information

Company name Alexander Chemical Corporation
Telephone 800-348-8827
Fax 219-393-5364

E-mail info@alexanderchemical.com

Website www.alexanderchemical.com

Address 7593 S. First Road,
 Kingsbury Industrial Park, Kingsbury, Indiana 46345, USA

Emergency telephone number

All other non-emergency inquiries about the product should be directed to the company.
 For Hazardous Materials [or Dangerous Goods] Incidents ONLY (spill, leak, fire, exposure or accident), call CHEMTREC at
 CHEMTREC®, USA: 001 (800) 424-9300
 CHEMTREC®, Mexico (Toll-Free - must be dialed from within country):
 001-800-13-203-9987
 CHEMTREC®, Other countries: 001 (703) 527-3888

2. Hazard(s) identification

Physical hazards Corrosive to metals Category 1
Health hazards Skin corrosion/irritation Category 1
 Serious eye damage/eye irritation Category 1
Environmental hazards Hazardous to the aquatic environment, acute hazard Category 1
OSHA defined hazards Not classified.
Label elements



Signal word Danger
Hazard statement May be corrosive to metals. Causes severe skin burns and eye damage. Toxic to aquatic life.
Precautionary statement Keep only in original container. Do not breathe the mist or vapor. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response	Storage	Disposal	Hazard(s) not otherwise classified (HNOC)
If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.	Store locked up. Store in corrosive resistant container with a resistant inner liner.	Dispose of contents/container in accordance with local/regional/national/international regulations.	None known.

3. Composition/information on ingredients

Chemical name	CAS number	%
Sodium hypochlorite	7681-52-9	5-20
Sodium hydroxide	1310-73-2	1-5
Water	7732-18-5	Balance

Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

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

5. Fire-fighting measures

Unsuitable extinguishing media Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.	Specific hazards arising from the chemical Self-contained breathing apparatus and full protective clothing must be worn in case of fire.	Fire-fighting equipment/instructions Move containers from fire area if you can do so without risk.	Use standard firefighting procedures and consider the hazards of other involved materials.
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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Methods and materials for containment and cleaning up

This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Store locked up. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

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

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3
US. ACGIH Threshold Limit Values		
Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3
US. NIOSH: Pocket Guide to Chemical Hazards		
Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3
US. Workplace Environmental Exposure Level (WEEL) Guides		
Components	Type	Value
Sodium hypochlorite (CAS 7681-52-9)	STEL	2 mg/m3

Biological limit values

Appropriate engineering controls

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

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Wear safety glasses with side shields (or goggles) and a face shield.

Eye/face protection

Skin protection

Hand protection

Other

Respiratory protection

In case of insufficient thermal protective clothing, wear suitable respiratory equipment.

Wear appropriate chemical resistant clothing.

Frequent change is advisable. Nitrile or neoprene gloves are recommended.

Wear appropriate chemical resistant gloves. Be aware that the liquid may penetrate the gloves.

Thermal hazards

General hygiene considerations

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

9. Physical and chemical properties

Appearance	Liquid.
Physical state	Greenish yellow liquid.
Form	Light greenish yellow.
Color	Chlorine.
Odor	Not available.
Odor threshold	11.5 ±0.3
pH	-11 °F (-23.9 °C)
Melting point/freezing point	> 212 °F (> 100 °C)
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Flammability limit - lower
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.09 - 1.21
Solubility(ies)	Not available.
Solubility (water)	Completely soluble in water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	May be corrosive to metals.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Acids. Metals. Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known. Contact with acids liberates toxic gas.

11. Toxicological information

Information on likely routes of exposure

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

Symptoms related to the physical, chemical and toxicological characteristics

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Sodium hypochlorite solution - sodium hypochlorite

Version #: 04 Revision date: 26-January-2021 Issue date: 30-July-2014

Components Species Test Results

Sodium hypochlorite (CAS 7681-52-9)	Aquatic	Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.03 - 0.07 mg/l, 96 hours
Persistence and degradability					
No data is available on the degradability of this product.					
Bioaccumulative potential					
No data available.					
Mobility in soil					
No data available.					
Other adverse effects					
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.					

13. Disposal considerations

Disposal instructions		Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations		Dispose in accordance with all applicable regulations.
Hazardous waste code		D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel]
Waste from residues / unused products		The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Contaminated packaging		Dispose of in accordance with local regulations.
		Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT		UN number	UN1791	UN proper shipping name	Hypochlorite solutions
		Transport hazard class(es)	8	Class	8
		Subsidiary risk	-	Label(s)	8
		Packing group	II	Environmental hazards	
		Marine pollutant	Yes	Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
		Special provisions	A7, B2, B15, IB2, IP5, N34, T7, TP2, TP24	Packaging exceptions	154
		Packaging non bulk	202	Packaging bulk	242
IATA		UN number	UN1791	UN proper shipping name	Hypochlorite solution
		Transport hazard class(es)	8	Class	8
		Subsidiary risk	-	Packing group	II
		Environmental hazards		Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
		Special provisions	A7, B2, B15, IB2, IP5, N34, T7, TP2, TP24	Packaging exceptions	154
		Packaging non bulk	202	Packaging bulk	242

IMDG

UN number	UN1791	UN proper shipping name	HYPOCHLORITE SOLUTION
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.	ERG Code	8L
Environmental hazards	Yes	Packing group	II
Subsidiary risk	-	Class	8
Transport hazard class(es)		UN proper shipping name	Hypochlorite solution
UN number	UN1791	UN proper shipping name	HYPOCHLORITE SOLUTION

Transport hazard class(es)
Class
Subsidiary risk
Label(s)
Packing group
Environmental hazards
Marine pollutant
Ems
Special precautions for user
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Read safety instructions, SDS and emergency procedures before handling.
This product is a liquid and when transported in bulk is covered under MARPOL 73/78 Annex II.
This product is listed in the IBC Code.
Ship type: 2
Pollution category: Y

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hydroxide (CAS 1310-73-2)
LISTED
Sodium hypochlorite (CAS 7681-52-9)
LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

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

Not regulated.

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

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

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

DANGER

Keep out of reach of children. Hazardous to Humans and domestic animals.
Corrosive, causes severe skin and eye irritation or chemical burns to broken skin.
Causes eye damage.
This pesticide is toxic to fish and aquatic organisms.
Strong oxidizing agent.

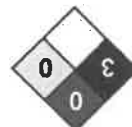
US, Massachusetts RTK - Substance List

Sodium hydroxide (CAS 1310-73-2)

Sodium hypochlorite solution - sodium hypochlorite

Version #: 04 Revision date: 26-January-2021 Issue date: 30-July-2014

The information contained herein is accurate to the best of our knowledge. However, data, safety standards and government regulations are subject to change and, therefore, holders and users should satisfy themselves that they are aware of all current data and regulations relevant to their particular use of product. ALEXANDER CHEMICAL CORPORATION DISCLAIMS ALL LIABILITY FOR RELIANCE ON THE COMPLETENESS OR ACCURACY OR THE INFORMATION INCLUDED HEREIN. CARUS CORPORATION MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR USE OR PURPOSE OF THE PRODUCT DESCRIBED HEREIN. All conditions relating to storage, handling, and use of the product are beyond the control of Alexander Chemical Corporation, and shall be the sole responsibility of the holder or user of the product.

Disclaimer**NFPA ratings****Version #****Revision date****Issue date**30-July-2014
26-January-2021
04**16. Other information, including date of preparation or last revision**

country(s).
A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).
United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory
On inventory (yes/no)*
Yes

International Inventories

Not listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US, California Proposition 65

Sodium hypochlorite (CAS 7681-52-9)
Sodium hydroxide (CAS 1310-73-2)

US, Rhode Island RTK

Sodium hypochlorite (CAS 7681-52-9)
Sodium hydroxide (CAS 1310-73-2)

US, Pennsylvania Worker and Community Right-to-Know Law

Sodium hypochlorite (CAS 7681-52-9)
Sodium hydroxide (CAS 1310-73-2)

US, New Jersey Worker and Community Right-to-Know Act

Sodium hypochlorite (CAS 7681-52-9)

[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

Ammonia, Anhydrous	Trade Designation	Anhydrous Ammonia	Product Function	Chloramination	Max Use	5 mg/L
Ammonium Hydroxide	Trade Designation	Ammonium Hydroxide	Product Function	Chloramination	Max Use	10 mg/L
Chlorine[CL]	Trade Designation	Chlorine	Product Function	Disinfection & Oxidation	Max Use	30 mg/L

Alexander Chemical Corporation
7593 South First Road
Kingsbury Industrial Park
Kingsbury, IN 46345
United States
800-348-8827
219-393-5558
Facility : Kingsbury, IN

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

These NSF Official Listings are current as of **Tuesday, May 16, 2023** at 12:15 a.m. Eastern Time. Please [contact NSF](#) to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information: <http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=17460&Standard=060&>

NSF Product and Service Listings

The Public Health and Safety Organization



Sulfuric Acid

[HY] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

Sodium Hypochlorite[HY]	Trade Designation	12.5% Sodium Hypochlorite	Disinfection & Oxidation	84mg/L	Max Use
	Liquid Bleach	Liquid Bleach	Disinfection & Oxidation	84 mg/L	
	Liquid Bleach 15%		Disinfection & Oxidation	67mg/L	
	Sodium Hypochlorite 12.5%		Disinfection & Oxidation	84 mg/L	
	Sodium Hypochlorite 15%		Disinfection & Oxidation	67mg/L	
Sodium Hydroxide	Trade Designation	Caustic Soda-Liquid	Corrosion & Scale Control	100 mg/L	Max Use
			pH Adjustment		
	Sodium Hydroxide-Liquid (Diaphragm Cell)		Corrosion & Scale Control	100 mg/L	
			pH Adjustment		
	Sodium Hydroxide-Liquid (Membrane Cell)		Corrosion & Scale Control	100 mg/L	
			pH Adjustment		

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

Hydrofluosilicic Acid	Trade Designation	Fluosilicic Acid - Water Treatment Grade	Fluoridation	5 mg/L	Max Use
		Hydrofluosilicic Acid - Water Treatment Grade	Fluoridation	5 mg/L	
Sodium Bisulfite[1]	Trade Designation	Sodium Bisulfite Solution, 38%	Dechlorination	46mg/L	Max Use

finished drinking water to ensure compliance to all applicable regulations.

Trade Designation
Sulfuric Acid

Product Function
Corrosion & Scale Control

Max Use
50 mg/L

Number of matching Manufacturers is 1
Number of matching Products is 15
Processing time was 0 seconds

COPY

Questions & Answers - 1

Solicitation
Buying Organization
ITB 24-032 - CPAC Chemicals - Sodium Hypochlorite and Hydrochloric Acid
Village of Orland Park

No	Question/Answer	Question Date
Q1	Question: Bid Tabulation Hi, Can you please release the previous bid tabulation for this bid	01/30/2024
	Answer: See attached ITB 22-032 Bid Summary Sheet.	
Q2	Question: Specification What is the Specs for the Sodium Hypochlorite? Or can you please elaborate what 18% of Chlorine is?	01/30/2024
	Answer: See attached Exhibit B - Sodium Hypochlorite 18%	

MINERAL MASTERS



130 W. GRAND LAKE BLVD.
 630-293-7727 Office
 630-293-7765 FAX

FOR CHEMICAL EMERGENCY, SPILL, LEAK, EXPOSURE, ACCIDENT, CALL CHEMTREC, 1-800-424-9300

Revised 6-6-22 SAFETY DATA SHEET

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1. PRODUCT NAME: Sodium Hypochlorite 18% **Product Identifier:** Sodium Hypochlorite (18%)

Product Use: Disinfectant, bleaching agent, source of available Chlorine deodorizer.

Supplier Name: Mineral Masters, 130 W Grand Lake Blvd., West Chicago, IL 60185

Prepared By: Mineral Masters (630)-293-7727

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Physical hazards:
 Corrosive to Metals Category 1
 Skin corrosion/irritation Category 1
 Serious eye damage/eye irritation Category 1
 Specific target organ toxicity, single Exposure Category 3 respiratory tract irritation

Environmental Hazards
 Hazardous to the aquatic environment
 Acute hazard Category 1

OSHA defined hazards
 Not Classified

Label Elements



Signal word: DANGER

Hazard Statement:

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

Precautionary statement
Prevention :

Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Keep only in original container. Avoid release to the environment. If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. Collect spillage.

Storage
 Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.

Disposal
 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

NONE KNOWN

Supplemental information
Contact with acids liberates toxic gas.

3.	COMPOSITION/INFORMATION ON INGREDIENTS			
	Mixtures			
	Chemical name	CAS number	%	
	Sodium hypochlorite	7681-52-9	18%	
	Sodium hydroxide	1310-73-2	0.3%	
	Water		81.7%	

4. FIRST AID MEASURES

INHALATION: Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact : Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention immediately. Wash contaminated clothing before reuse. Call a physician or poison control center immediately.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms and delayed effects, acute

Corrosive effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed

General information

Treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. With eye exposure, continue flushing during transport to hospital.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

HMIS Ratings Health. 3 Flammability. 0 Reactivity: 2

5. FIRE FIGHTING MEASURES

Suitable extinguishing media : Unsuitable extinguishing media

Specific hazards arising from the chemical

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions

General fire hazards

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate

protective clothing. Absorb spillage to prevent material damage. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

Do not discharge into drains, water courses or onto the ground. Environmental manager must be informed of all major releases.

Methods and materials for containment and cleaning up

Environmental precautions

7. HANDLING AND STORAGE

Precautions for safe handling

Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Use with adequate ventilation. Observe good industrial hygiene practices. Do not apply heat or direct sunlight. Temperature and product concentration affect product quality and decomposition rates.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool and well-ventilated place. Store in a corrosive resistant container. Consult container manufacturer for additional guidance. Store away from and do not mix with incompatible materials such as acids, oxidizers, organics, reducing agents, and all metals except titanium.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

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

Components

Sodium hydroxide (CAS PEL 1310-73-2)

US, ACGIH Threshold Limit Values

Value	Type
2 mg/m ³	PEL

Sodium hydroxide (CAS Ceiling 1310-73-2)
US, NIOSH: Pocket Guide to Chemical Hazards

Ceiling 2 mg/m³

Sodium hydroxide (CAS Ceiling 1310-73-2)
US, Workplace Environmental Exposure Level (WBEL) Guides

Ceiling 2 mg/m³

Sodium hypochlorite (CAS STEL 7681-52-9)

STEL 2 mg/m³

Biological Limit Values

NO biological exposure limits noted for the ingredient(s)

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

clothing and protective equipment to remove contaminants.

PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid Solution	
Odor Threshold: 0.9 mg/m ³	
Vapor Density (air=1): Not Available	
Boiling Point: N/A	
pH: 12 - 14 (25°C/77°F)	
Bulk Density: Not Available	
Solubility in Water: Complete	
Odor and Appearance PUNGENT	
Specific Gravity (Water=1): 1.17 at 20°C (12% trade)	
Evaporation Rate: Not Available	
Freeze/Melting Point: -4°F (-20°C) (7% solution)	
Water/Oil Distribution Coefficient: Not Available	
% Volatiles by Volume: Not Available	

Initial boiling point and boiling range : N/A	
Flammability (solid, gas): N/A	
Upper/lower flammability or explosive limits	
Flammability limit (%) - lower	N/A
Flammability limit (%) - upper	N/A
Explosive limit - lower (%)	N/A
Explosive limit - upper (%)	N/A
Vapor pressure	12 mm Hg (20°C/68°F)

Vapor pressure	12 mm Hg (20°C/68°
Vapor density	N/A
Relative density	N/A
Solubility(ies)	
Solubility (water)	Completely miscible
Partition coefficient	
(n-octanol/water)	
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available
Other information	
Bulk density	Not Available
Molecular formula	NaOCl
Molecular weight	74.5 g/mol

10.	STABILITY AND REACTIVITY Stability.....Unstable at temperatures above 40°C, in sunlight, and in contact with acid Chemical Stability.....Material is stable under normal conditions. Incompatibility.....Incompatible with strong acids, ammonia, oxidizable materials, nickel, copper, tin, manganese, and iron. Hazardous Products of Decomposition.....Chlorine (by reaction with acids), oxygen (by reaction with nickel, copper, tin, manganese, iron), sodium chloride, sodium chlorate, with increased temperature. Polymerization.....Will not occur. Hazardous decomposition products.....No hazardous decomposition products are known.
-----	---

11. TOXICOLOGICAL INFORMATION		Information on likely routes of exposure
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.	
Inhalation	Vapors and spray mist may irritate throat and respiratory system and cause coughing.	

Skin contact Causes skin burns.
 Eye contact Causes eye burns.
 Symptoms related to the physical, and toxicological characteristics
 Corrosive effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
 Permanent eye damage including blindness could result.
 Information on toxicological effects
 Acute toxicity Occupational exposure to the substance or mixture may cause adverse effects.

Product	Species	Test Results
---------	---------	--------------

Sodium Hypochlorite Solution 5-17% (CAS Mixture)	Acute Dermal LD50	Rabbit	> 2 g/kg
	Oral LD50	Rat	3 - 5 g/kg
* Estimates for product may be based on additional component data not shown. Test Results			

Skin corrosion/irritation Causes severe skin burns and eye damage.
 Serious eye damage /eye irritation Causes serious eye damage.
 Respiratory or skin sensitization
 Respiratory sensitization No data available.
 Skin sensitization No data available.
 Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
 Carcinogenicity
 This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA
 IARC Monographs. Overall Evaluation of Carcinogenicity
 Sodium hypochlorite (CAS 7681-52-9) 3 Not classifiable as a carcinogenicity to humans
 Reproductive toxicity No data available.
 Specific target organ toxicity - single exposure: May cause respiratory irritation
 Specific target organ toxicity - repeated exposure No Data Available.
 Aspiration hazard Not classified, however droplets of the product may be aspirated into the lungs through ingestion or vomiting and may cause a serious chemical pneumonia.
 Chronic effects
 Further information
 Prolonged or repeated overexposure causes lung damage.
 Prolonged inhalation may be harmful.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Product Sodium Hypochlorite Solution 5-17% (CAS Mixture)
Species
Test Results

Product	Species	Test Results
Aquatic	Daphnia	1 mg/l
Crustacea	Bluegill (Lepomis macrochirus)	0.6 mg/l, 48 hours
Fish		

* Estimates for product may be based on additional component data not shown.

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

Bioaccumulative potential No data available for this product.

Mobility in soil Not available.

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

13. DISPOSAL CONSIDERATIONS

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

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

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

14. TRANSPORT INFORMATION

DOT

UN number: UN1791

UN PROPER SHIPPING NAME: Hypochlorite Solutions

Transport Hazard Class(es)

Class

Subsidiary Risk: -

Packing Group: III

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

Special provisions IB3, N34, T4, TP2, TP24

Packaging exceptions

Packaging non bulk 154

Packaging bulk 203

Packaging bulk 241

IATA

UN number: UN1791

UN proper shipping name HYPOCHLORITE SOLUTION

Transport hazard class(es)

Class

Subsidiary risk -

Label(s) 8

Packing group III

Environmental hazards Yes

ERG Code 8L

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

IMDG
UN number
UN proper shipping name
HYPPOCHLORITE SOLUTION
UN1791

Transport hazard class(es)

Class

Subsidiary risk

Label(s)

Packing group

Environmental hazards

Marine pollutant

Ems

Special precautions for user

F-A, S-B

Yes

Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. REGULATORY INFORMATION

US federal regulations

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

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US, OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

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ERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hydroxide (CAS 1310-73-2) LISTED

Sodium hypochlorite (CAS 7681-52-9) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Yes

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

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

Not regulated.

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

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

US state regulations

US, Massachusetts RTK - Substance List

Sodium hydroxide (CAS 1310-73-2)

Sodium hypochlorite (CAS 7681-52-9)

US, New Jersey Worker and Community Right-to-Know Act

Sodium hydroxide (CAS 1310-73-2)

Sodium hypochlorite (CAS 7681-52-9)

US, Pennsylvania Worker and Community Right-to-Know Law

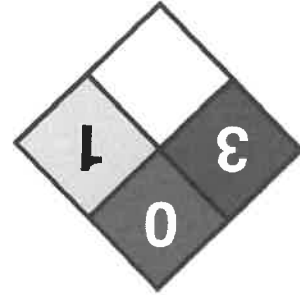
Sodium hydroxide (CAS 1310-73-2)

Sodium hypochlorite (CAS 7681-52-9)

US, Rhode Island RTK

Sodium hydroxide (CAS 1310-73-2)

Sodium hypochlorite (CAS 7681-52-9)



NFPA RATINGS

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

Do not use ingredient information and/or percentages in this MSDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis.

All express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

16. OTHER INFORMATION

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

United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	YES
Philippines	Chemical Substances (PICCS)	YES
New Zealand	Inventory of Chemicals and	YES
Korea	New Zealand Inventory	YES
Japan	Existing Chemicals List (ECL)	YES
Europe	Inventory of Existing and New Chemical Substances (ENCS)	YES
Europe	European List of Notified Chemical Substances (ELINCS)	NO
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	YES
China	Inventory of Existing Chemical Substances in China (IECSC)	YES
Canada	Non-Domestic Substances List (NDL)	NO
Canada	Domestic Substances List (DSL)	YES
Australia	Australian Inventory of Chemical Substances (AICS)	YES
International Inventories Country(s) or region		
Inventory name		
On inventory (yes/no)*		
US - California Proposition 65		
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.		
US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance		
Not listed.		