

## AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR

THIS AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR is made and effective as of the 6th day of June 2023, by and between the CITY OF BEAUMONT (“CITY”) whose address is 550 E. 6<sup>th</sup> Street, Beaumont, California 92223 and Univar Solutions USA, Inc., a Washington Corporation, whose address is 8201 S. 212<sup>th</sup>, Kent, WA 98032-1994 (“CONTRACTOR”).

### RECITALS

This Agreement is entered into on the basis of the following facts, understandings and intentions of the parties to this Agreement:

A. CITY desires to engage CONTRACTOR to transport and deliver the desired chemicals and services; and

B. CONTRACTOR has made a proposal (“Proposal”) to the CITY to provide such goods and services, which Proposal is attached hereto as Exhibit “A” and incorporated herein by this reference; and

C. CONTRACTOR agrees to provide such services pursuant to, and in accordance with, the terms and conditions of this Agreement, and represents and warrants to CITY that CONTRACTOR possesses the necessary skills, licenses, certifications, qualifications, personnel and equipment to provide such services.

### AGREEMENT

NOW, THEREFORE, in consideration of the foregoing Recitals and mutual covenants contained herein, CITY and CONTRACTOR agree as follows:

1. Term of Agreement. This Agreement is effective as of the date first above written and shall continue until terminated as provided for herein. Notwithstanding anything in this Agreement to the contrary, this Agreement shall automatically terminate after three (3) year(s) unless extended by the parties with the approval of the City Council of the CITY.

2. Services to be Performed. CONTRACTOR agrees to provide the services (“Services”) as follows: Supply and Delivery of desired chemicals per Exhibit “A”. All Services shall be performed in the manner and according to the timeframe set forth in the Proposal. CONTRACTOR designates Elio Limonchi as CONTRACTOR’S professional(s) responsible for overseeing the Services provided by CONTRACTOR.

3. Associates and Subcontractors. CONTRACTOR may, at CONTRACTOR’S sole cost and expense, employ such competent and qualified independent associates, subcontractors and consultants as CONTRACTOR deems necessary to perform the Services; provided, however, that CONTRACTOR shall not subcontract any of the Services without the written consent of CITY.

4. Compensation.

4.01 CONTRACTOR shall be paid at the rates set forth in the Proposal and shall not increase any rate without the prior written consent of the CITY.

4.02 CONTRACTOR shall not be compensated for any Services rendered nor reimbursed for any expenses incurred in excess of those authorized unless approved in advance by the CITY, in writing.

4.03 CONTRACTOR shall submit to CITY, on or before the fifteenth (15<sup>th</sup>) of each month, itemized invoices for the Services rendered in the previous month. The CITY shall not be obligated to pay any invoice that is submitted more than sixty (60) days after the due date of such invoice. CITY shall have the right to review and audit all invoices prior to or after payment to CONTRACTOR. This review and audit may include, but not be limited to CITY's:

- a. Determination that any hourly fee charged is consistent with this Agreement's approved hourly rate schedule;
- b. Determination that the multiplication of the hours billed times the approved rate schedule dollars is correct;
- c. Determination that each item charged is the usual, customary, and reasonable charge for the particular item. If CITY determines an item charged is greater than usual, customary, or reasonable, or is duplicative, ambiguous, excessive, or inappropriate, CITY shall either return the bill to CONTRACTOR with a request for explanation or adjust the payment accordingly, and give notice to CONTRACTOR of the adjustment.

4.04 If the work is satisfactorily completed, CITY shall pay such invoice within thirty (30) days of its receipt. Should CITY dispute any portion of any invoice, CITY shall pay the undisputed portion within the time stated above, and at the same time advise CONTRACTOR in writing of the disputed portion.

## 5. Obligations of CONTRACTOR.

5.01 CONTRACTOR agrees to perform all Services in accordance with the terms and conditions of this Agreement and the Proposal. In the event that the terms of the Proposal shall conflict with the terms of this Agreement, or contain additional terms that purport to bind the CITY other than the Services to be rendered and the price for the Services, the terms of this Agreement shall govern and said additional or conflicting terms shall be of no force or effect.

5.02 Except as otherwise agreed by the parties, CONTRACTOR will supply all personnel, materials and equipment required to perform the Services. CONTRACTOR shall provide its own offices, telephones, vehicles and computers and set its own work hours. CONTRACTOR will determine the method, details, and means of performing the Services under this Agreement.

5.03 CONTRACTOR shall keep CITY informed as to the progress of the

Services by means of regular and frequent consultations. Additionally, when requested by CITY, CONTRACTOR shall prepare written status reports.

5.04 CONTRACTOR is responsible for paying, when due, all income and other taxes, fees and withholding, including withholding state and federal taxes, social security, unemployment and worker's compensation, incurred as a result of the compensation paid under this Agreement. CONTRACTOR agrees to indemnify, defend and hold harmless CITY for any claims, costs, losses, fees, penalties, interest, or damages suffered by CITY resulting from CONTRACTOR's failure to comply with this provision.

5.05 In the event CONTRACTOR is required to prepare plans, drawings, specifications and/or estimates, the same shall be furnished in conformance with local, state and federal laws, rules and regulations.

5.06 CONTRACTOR represents that it possesses all required licenses necessary or applicable to the performance of Services under this Agreement and the Proposal and shall obtain and keep in full force and effect all permits and approvals required to perform the Services herein. In the event CITY is required to obtain an approval or permit from another governmental entity, CONTRACTOR shall provide all necessary supporting documents to be filed with such entity.

5.07 CONTRACTOR shall be solely responsible for obtaining Employment Eligibility Verification information from CONTRACTOR's employees, in compliance with the Immigration Reform and Control Act of 1986, Pub. L. 99-603 (8 U.S.C. 1324a), and shall ensure that CONTRACTOR's employees are eligible to work in the United States.

5.08 In the event that CONTRACTOR employs, contracts with, or otherwise utilizes any CalPERS retirees in completing any of the Services performed hereunder, such instances shall be disclosed in advance to the CITY and shall be subject to the CITY's advance written approval.

5.09 Drug-free Workplace Certification. By signing this Agreement, the CONTRACTOR hereby certifies under penalty of perjury under the laws of the State of California that the CONTRACTOR will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code, Section 8350 et seq.) and will provide a drug-free workplace.

5.10 CONTRACTOR shall comply with all applicable local, state and federal laws, rules, regulations, entitlements and/or permits applicable to, or governing the Services authorized hereunder.

6. Insurance. CONTRACTOR hereby agrees to be solely responsible for the health and safety of its employees and agents in performing the Services under this Agreement and shall comply with all laws applicable to worker safety including but not limited to Cal-OSHA. Therefore, throughout the duration of this Agreement, CONTRACTOR hereby covenants and agrees to maintain insurance in conformance with the requirements set forth below. Attached hereto as **Exhibit "B"** are copies of Certificates of Insurance and endorsements as required by

Section 7.02. If existing coverage does not meet the requirements set forth herein, CONTRACTOR agrees to amend, supplement or endorse the existing coverage to do so. CONTRACTOR shall provide the following types and amounts of insurance:

6.01 Commercial general liability insurance in an amount of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate; CONTRACTOR agrees to have its insurer endorse the general liability coverage required herein to include as additional insured's CITY, its officials, employees and agents. CONTRACTOR also agrees to require all contractors and subcontractors to provide the same coverage required under this Section 6.

6.02 Business Auto Coverage in an amount no less than \$1 million per accident. If CONTRACTOR or CONTRACTOR's employees will use personal autos in performance of the Services hereunder, CONTRACTOR shall provide evidence of personal auto liability coverage for each such person.

6.03 Workers' Compensation coverage for any of CONTRACTOR's employees that will be providing any Services hereunder. CONTRACTOR will have a state-approved policy form providing statutory benefits as required by California law. The provisions of any workers' compensation will not limit the obligations of CONTRACTOR under this Agreement. CONTRACTOR expressly agrees not to use any statutory immunity defenses under such laws with respect to CITY, its employees, officials and agents.

6.04 Optional Insurance Coverage. Choose and check one: Required 08/ /Not Required \_\_\_; Errors and omissions insurance in a minimum amount of \$2 million per occurrence to cover any negligent acts or omissions committed by CONTRACTOR, its employees and/or agents in the performance of any Services for CITY.

## 7. General Conditions pertaining to Insurance Coverage

7.01 No liability insurance coverage provided shall prohibit CONTRACTOR from waiving the right of subrogation prior to a loss. CONTRACTOR waives all rights of subrogation against CITY regardless of the applicability of insurance proceeds and shall require all contractors and subcontractors to do likewise.

7.02. Prior to beginning the Services under this Agreement, CONTRACTOR shall furnish CITY with certificates of insurance, endorsements, and upon request, complete copies of all policies, including complete copies of all endorsements. All copies of policies and endorsements shall show the signature of a person authorized by that insurer to bind coverage on its behalf.

7.03. All required policies shall be issued by a highly rated insurer with a minimum A.M. Best rating of "A:VII"). The insurer(s) shall be admitted and licensed to do business in California. The certificates of insurance hereunder shall state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits, except after thirty (30) days' prior written notice has been given to CITY.

7.04 Self-insurance does not comply with these insurance specifications.

CONTRACTOR acknowledges and agrees that that all insurance coverage required to be provided by CONTRACTOR or any subcontractor, shall apply first and on a primary, non-contributing basis in relation to any other insurance, indemnity or self-insurance available to CITY.

7.05 All coverage types and limits required are subject to approval, modification and additional requirements by CITY, as the need arises. CONTRACTOR shall not make any reductions in scope of coverage (e.g. elimination of contractual liability or reduction of discovery period) that may affect CITY's protection without CITY's prior written consent.

7.06 CONTRACTOR agrees to provide immediate notice to CITY of any claim or loss against CONTRACTOR or arising out of the Services performed under this Agreement. CITY assumes no obligation or liability by such notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve CITY.

## 8. Indemnification.

8.01 CONTRACTOR and CITY agree that CITY, its employees, agents and officials should, to the extent permitted by law, be fully protected from any loss, injury, damage, claim, lawsuit, cost, expense, attorneys' fees, litigation costs, defense costs, court costs or any other costs arising out of or in any way related to the performance of this Agreement by CONTRACTOR or any subcontractor or agent of either as set forth herein. Accordingly, the provisions of this indemnity are intended by the parties to be interpreted and construed to provide the fullest protection possible under the law to CITY. CONTRACTOR acknowledges that CITY would not enter into this Agreement in the absence of the commitment of CONTRACTOR to indemnify and protect CITY as set forth herein.

a. To the fullest extent permitted by law, CONTRACTOR shall defend, indemnify and hold harmless CITY, its employees, agents and officials, from any liability, claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses, damages or costs of any kind, whether actual, alleged or threatened, actual attorneys' fees incurred by CITY, court costs, interest, defense costs, including expert witness fees and any other costs or expenses of any kind whatsoever without restriction or limitation incurred in relation to, as a consequence of or arising out of, or in any way attributable actually, allegedly or impliedly, in whole or in part to the performance of this Agreement. CONTRACTOR's obligation to defend, indemnify and hold harmless shall include any and all claims, suits and proceedings in which CONTRACTOR (and/or CONTRACTOR's agents and/or employees) is alleged to be an employee of CITY. All obligations under this provision are to be paid by CONTRACTOR as they are incurred by CITY.

b. Without affecting the rights of CITY under any provision of this Agreement or this Section, CONTRACTOR shall not be required to indemnify and hold harmless CITY as set forth above for liability attributable solely to the fault of CITY, provided such fault is determined by agreement between the parties or the

findings of a court of competent jurisdiction.

8A. Indemnification Design Professionals.

8A.01 In the event that CONTRACTOR is a design professional under California Civil Code Section 2782.8 this Section 8A shall apply instead of Section 8. To the fullest extent permitted by California law and in accordance with California Civil Code section 2782.8, CONTRACTOR shall indemnify, and hold harmless the City, its officers, employees, trustees and members (“Indemnified Parties”) from any and all actions, assessments, counts, citations, claims, costs, damages, demands, judgments, liabilities (legal, administrative or otherwise), losses, notices, expenses, fines, penalties, proceedings, responsibilities, violations, attorney’s and consultants’ fees and causes of action including, but not limited to those for, injury to property or persons, including personal injury and/or death (“Claim(s)”), to the extent that the Claim(s) arises out of, pertains to, or relates to the negligence, recklessness, or willful misconduct of CONTRACTOR, its directors, officials, officers, employees and consultants arising out of, connected with, or resulting from the performance of the Services, the Project, or this Agreement. This indemnity excludes liability caused by the negligence or willful misconduct of any of the Indemnified Parties. The cost to indemnify, hold harmless, and defend charged to CONTRACTOR shall not exceed CONTRACTOR’S proportionate percentage of fault.

9. Additional Services, Changes and Deletions.

9.01 In the event CONTRACTOR performs additional or different services than those described herein without the prior written approval of the City Manager and/or City Council of CITY, CONTRACTOR shall not be compensated for such services. CONTRACTOR expressly waives any right to be compensated for services and materials not covered by the scope of this Agreement or authorized by the CITY in writing.

9.02 CONTRACTOR shall promptly advise the City Manager and Finance Director of CITY as soon as reasonably practicable upon gaining knowledge of a condition, event or accumulation of events which may affect the scope and/or cost of Services. All proposed changes, modifications, deletions and/or requests for additional services shall be reduced to writing for review and approval by the CITY and/or City Council.

10. Termination of Agreement.

10.01 Notwithstanding any other provision of this Agreement, CITY, at its sole option, may terminate this Agreement with or without cause, or for no cause, at any time by giving twenty (20) days’ written notice to CONTRACTOR.

10.02 In the event of termination, the payment of monies due CONTRACTOR for undisputed Services performed prior to the effective date of such termination shall be paid within thirty (30) business days after receipt of an invoice as provided in this Agreement. Immediately upon termination, CONTRACTOR agrees to promptly provide and deliver to CITY all original documents, reports, studies, plans, specifications and the like which are in the possession or control of CONTRACTOR and pertain to CITY.

11. Status of CONTRACTOR.

11.01 CONTRACTOR shall perform the Services in CONTRACTOR's own way as an independent contractor, and in pursuit of CONTRACTOR's independent calling, and not as an employee of CITY. However, CONTRACTOR shall regularly confer with CITY's City Manager as provided for in this Agreement.

11.02 CONTRACTOR agrees that it is not entitled to the rights and benefits afforded to CITY's employees, including disability or unemployment insurance, workers' compensation, retirement, CalPERS, medical insurance, sick leave, or any other employment benefit. CONTRACTOR is responsible for providing, at its own expense, disability, unemployment, workers' compensation and other insurance, training, permits, and licenses for itself and its employees and subcontractors.

11.03 CONTRACTOR hereby specifically represents and warrants to CITY that it possesses the qualifications and skills necessary to perform the Services under this Agreement in a competent, professional manner, without the advice or direction of CITY and that the Services to be rendered pursuant to this Agreement shall be performed in accordance with the standards customarily applicable to an experienced and competent professional rendering the same or similar services in the same geographic area where the CITY is located. Further, CONTRACTOR represents and warrants that the individual signing this Agreement on behalf of CONTRACTOR has the full authority to bind CONTRACTOR to this Agreement.

12. Ownership of Documents; Audit.

12.01 All draft and final reports, plans, drawings, studies, maps, photographs, specifications, data, notes, manuals, warranties and all other documents of any kind or nature prepared, developed or obtained by CONTRACTOR in connection with the performance of Services performed for the CITY shall become the sole property of CITY, and CONTRACTOR shall promptly deliver all such materials to CITY upon request. At the CITY's sole discretion, CONTRACTOR may be permitted to retain original documents, and furnish reproductions to CITY upon request, at no cost to CITY.

12.02 Subject to applicable federal and state laws, rules and regulations, CITY shall hold all intellectual property rights to any materials developed pursuant to this Agreement. CONTRACTOR shall not such use data or documents for purposes other than the performance of this Agreement, nor shall CONTRACTOR release, reproduce, distribute, publish, adapt for future use or any other purposes, or otherwise use, any data or other materials first produced in the performance of this Agreement, nor authorize others to do so, without the prior written consent of CITY.

12.03 CONTRACTOR shall retain and maintain, for a period not less than four years following termination of this Agreement, all-time records, accounting records and vouchers and all other records with respect to all matters concerning Services performed, compensation paid and expenses reimbursed. At any time during normal business hours and as often as CITY may deem necessary, CONTRACTOR shall make available to CITY's agents for examination all of such records and shall permit CITY's agents to audit, examine and reproduce such records.

13. Miscellaneous Provisions.

13.01 This Agreement, which includes all attached exhibits, supersedes any and all previous agreements, either oral or written, between the parties hereto with respect to the rendering of Services by CONTRACTOR for CITY and contains all of the covenants and agreements between the parties with respect to the rendering of such Services in any manner whatsoever. Any modification of this Agreement will be effective only if it is in writing signed by both parties.

13.02 CONTRACTOR shall not assign or otherwise transfer any rights or interest in this Agreement without the prior written consent of CITY. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

13.03 CONTRACTOR shall timely file FPPC Form 700 Conflict of Interest Statements with CITY if required by California law and/or the CITY's conflict of interest policy.

13.04 If any legal action or proceeding, including an action for declaratory relief, is brought to enforce or interpret the provisions of this Agreement, the prevailing party will be entitled to reasonable attorneys' fees and costs, in addition to any other relief to which that party may be entitled.

13.05 This Agreement is made, entered into and shall be performed in the County of Riverside in the State of California and shall in all respects be interpreted, enforced and governed under the laws of the State of California. The parties agree that venue in any litigation between them shall be in Riverside County, California.

13.06 CONTRACTOR covenants that neither it nor any officer or principal of its firm has any interest, nor shall they acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of their Services hereunder. CONTRACTOR further covenants that in the performance of this Agreement, no person having such interest shall be employed by it as an officer, employee, agent, or subcontractor.

13.07 CONTRACTOR has read and is aware of the provisions of Section 1090 et seq. and Section 87100 et seq. of the Government Code relating to conflicts of interest of public officers and employees. CONTRACTOR agrees that they are unaware of any financial or economic interest of any public officer or employee of the CITY relating to this Agreement. It is further understood and agreed that if such a financial interest does exist at the inception of this Agreement, the CITY may immediately terminate this Agreement by giving notice thereof. CONTRACTOR shall comply with the requirements of Government Code section 87100 et seq. and section 1090 in the performance of and during the term of this Agreement.

13.08 Improper Consideration. CONTRACTOR shall not offer (either directly or through an intermediary) any improper consideration such as, but not limited to, cash,



discounts, services, the provision of travel or entertainment, or any items of value to any officer, employee or agent of the CITY in an attempt to secure favorable treatment regarding this Agreement or any contract awarded by CITY. The CITY, by notice, may immediately terminate this Agreement if it determines that any improper consideration as described in the preceding sentence was offered to any officer, employee or agent of the CITY with respect to the proposal and award process of this Agreement or any CITY contract. This prohibition shall apply to any amendment, extension or evaluation process once this Agreement or any CITY contract has been awarded. CONTRACTOR shall immediately report any attempt by any CITY officer, employee or agent to solicit (either directly or through an intermediary) improper consideration from CONTRACTOR.

13.09 Severability. If any portion of this Agreement is declared invalid, illegal or otherwise unenforceable by a court of competent jurisdiction, the entire balance of this Agreement not so affected shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereby have made and executed this Agreement to be effective as of the day and year first above written.

**CITY:**

CITY OF BEAUMONT

By: \_\_\_\_\_  
Julio Martinez, III, Mayor

**CONTRACTOR:**

UNIVAR SOLUTIONS USA, INC.

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**

**PROPOSAL**

Univar Solutions USA Inc.  
8201 S. 212th  
Kent, WA 98032-1994  
USA

T 253-872-5000  
F 253-572-5041  
www.univarusa.com



April 28, 2023

City of Beaumont  
C/O Grace Wichert  
550 E 6<sup>th</sup> St.  
Beaumont, CA 92223

RE: RFP for Wastewater Treatment Plant Chemical Supply and Delivery

To Grace:

Univar Solutions USA Inc. is pleased to offer a price quote on your ITB due Tuesday, May 2, 2023, and has done so on the attached required paperwork.

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

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

Thank you,

*Jennifer Perras*

Municipal Specialist  
Western Region  
Univar Solutions USA Inc.  
[Muniteam-west@univarsolutions.com](mailto:Muniteam-west@univarsolutions.com)  
[www.univarsolutions.com](http://www.univarsolutions.com)

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

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

Univar Solutions USA Inc.  
8201 S. 212th  
Kent, WA 98032-1994  
USA



T 253-872-5000  
F 253-572-5041  
[www.univarusa.com](http://www.univarusa.com)

To whom it may concern:

This is Univar's delivery plan for the Wastewater Treatment Plant Chemical Supply & Delivery.

Once the order is received and input into our system, a confirmation including pricing and delivery date will be sent via email.

The chemicals will be loaded at our Santa Fe Springs, CA location, and Fresno, CA for the Citric Acid.

We currently have a fleet of trucks at our Santa Fe Springs, CA location, we will load the trucks based on the orders placed by the city and ship out.

Transportation will primarily be provided by the Univar fleet.

The standard order to deliver minimum lead time is 48 hours.

On the day of the delivery, the Univar driver will contact designated City personnel when they are about 1 hour away from the facility(s).

Once the material in the tanker is matched to the material in the customer tank and per the Bill Of Lading, the driver will offload chemicals into appropriate tanks on site.

Over the past 5 years, Univar has participated in 100's Municipal bids, please see the attached reference list for projects that represent our capabilities in California.

All of our operational personnel participated in making sure all delivery requirements were met for each customer.

Our customer service department takes care of all orders, they communicate with operations and the customer to make sure all requests are satisfied.

We meet 100% of our contractual obligations; any municipality that is under contract with Univar is serviced first if there is a shortage in the marketplace.

*Jennifer Perras*

Municipal Specialists  
Western Region  
Univar Solutions USA Inc.  
[Muniteam-west@univar.com](mailto:Muniteam-west@univar.com)  
[www.univarsolutions.com](http://www.univarsolutions.com)

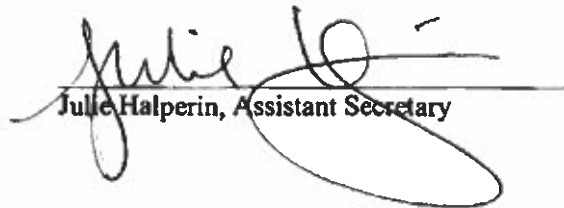
**CERTIFICATE OF ASSISTANT SECRETARY**

I, Julie Halperin, hereby certify that:

1. I am the duly elected, qualified and acting Assistant Secretary of Univar Solutions USA Inc., a Washington corporation (the "Company"), and am a custodian of the corporate records of the Company and am familiar with the matters herein certified.
2. The below list of persons are authorized to execute, for and on behalf of the Company, written municipal bids or municipal proposals for the sale of other disposition of products up to \$2.5 million handled by the Company.

Shawnasey McCarthy- Municipal Commercial Manager  
Victoria Meakim - Municipal Specialist  
Roise Holiday- Municipal Specialist  
Jennifer Perras - Municipal Specialist  
Shelley Stevens - Municipal Specialist  
Stacy Ziegler- Municipal Specialist  
Raven Claudio - Municipal Specialist  
Ileana Caballero – Municipal Specialist

IN WITNESS WHEREOF, I have executed this Certificate of Assistant Secretary of the Company this 14<sup>th</sup> day of February 2023.

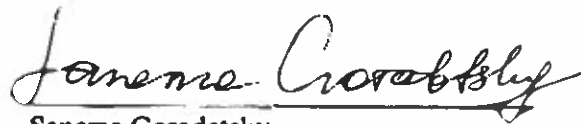
  
Julie Halperin, Assistant Secretary

State of Illinois        )  
                                  )  
County of DuPage     )

This Certificate of Secretary was signed and sworn to before me on this 14<sup>th</sup> day of February 2023 by Julie Halperin, Assistant Secretary of Univar Solutions USA Inc.

Seal



  
Sanema Gorodetsky  
Notary Public  
My commission expires July 25, 2026

Univar Solutions USA Inc.  
2600 S Garfield Avenue  
Commerce, CA 90040



T 323-727-7005  
F 323-837-7100  
www.univar.com

## GENERAL INFORMATION

### Regular Office Hours during which orders may be placed:

Monday – Friday 7:00 am – 5:30 pm (PST)

### In case of an emergency during non-business hours:

For Non-Chemical Emergencies:

After-hours emergency pager – 24-hour response: 562-944-7244 for emergencies only.

For Chemical Related Emergencies:

ChemTrec: (800) 424-9300

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

Office Phone: (800) 201-4439

Office Fax: (323) 837-7100

Email Orders – [CustSvc-LA@UnivarSolutions.com](mailto:CustSvc-LA@UnivarSolutions.com)

Tom DeLong - District Administrative Manager

[thomas.delong@univarsolutions.com](mailto:thomas.delong@univarsolutions.com)

Aaron Cervantes – Planning Manager

[Aaron.Cebrvantes@univarsolutions.com](mailto:Aaron.Cebrvantes@univarsolutions.com)

Clay Kussler - General Manager

[clay.kussler@univarsolutions.com](mailto:clay.kussler@univarsolutions.com)

### Sales Contact:

Elio Limonchi

Sales Account Manager

Phone: (619) 241-1382

[Elio.Limonchi@univarsolutions.com](mailto:Elio.Limonchi@univarsolutions.com)

### For anything pertaining to bids:

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

Univar USA Inc.  
Attn: WER Muni Team  
8201 S. 212<sup>th</sup>  
Kent, WA 98032-1994

Contacts: [muniteam-west@univarsolutions.com](mailto:muniteam-west@univarsolutions.com)

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

Roise Holiday  
Municipal Specialist  
(253) 872-5068  
(253) 872-5041  
[roise.Holiday@univarsolutions.com](mailto:roise.Holiday@univarsolutions.com)

Stacy Ziegler  
Municipal Specialist  
(253) 872-5023  
(253) 872-5041  
[Stacy.ziegler@univarsolutions.com](mailto:Stacy.ziegler@univarsolutions.com)

Shawnasey McCarthy  
Municipal Commercial Manager  
Phone: (253) 872-5052  
Fax: (253) 872-5041  
[shawnasey.mccarthy@univarsolutions.com](mailto:shawnasey.mccarthy@univarsolutions.com)

**Remittance Address:**

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

**Standard Payment Terms:**

Net 30 days

## Mission Statement

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

## Vision Statement

*Be the benchmark of excellence.*

## Quality Policy

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

## Statement of Core Values

- *Safety: Safety is the first priority, the most important aspect of our work.*
- *Continuous Improvement: We will improve results for all our stakeholders by doing the right things better every time.*
- *Employees: We respect and value every employee and are committed to support and develop each other personally and professionally.*
- *Environment: We are committed to protecting the health and well being of our employees, our customers, the community and the environment.*
- *Ethics: We treat every individual in our business and personal practices ethically with integrity and honesty.*
- *Leadership: Each of us strives to lead and motivate by example and consistently live up to these core values. We coach, train, develop and empower employees to reach their full potential.*





**Univar Solutions USA Inc.  
Delivery & Supply Assurance**

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

Univar USA, Inc., has 124 locations across the US with thousands of trucks, 39 million gallons of bulk storage and over 10 million square feet of warehouse storage.

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

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

## **Univar Solutions USA Inc. Quality Assurance Statement**

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

- Univar provides products that meet the manufacturer's specifications.
- Univar retains packaging samples and quality-related documents in accordance with its record retention program, which specifically calls for the retention of FDA regulated samples, and quality-related documents for three (3) years and EP samples and quality-related documents for six (6) years.
- Under Univar's Management of Change process, Univar forwards notices from a product's manufacturer related to ingredients, changes in processing sites, and manufacturing processes in a timely manner.
- Univar has a formalized recall process and provides notice of any known recalls or other matters that come to its attention that may directly or indirectly impact a product.
- Univar's quality control, employee training, and Safety, Health & Environmental programs meet industry standards.
- Univar develops, and maintains operational plans to meet, all federal, state, and local laws, rules, and regulations related to the packaging, storing, and distribution of products.
- Univar has facilities in the U.S. that are ISO 9001:2008 registered, including Univar's corporate office.
- Univar's facilities that handle FDA regulated product meet FDA cGMP standards.
- Univar's computer systems maintain various security controls to ensure proper management of information.

For food grade and pharmaceutical grade products:

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

Univar USA Inc



**Univar Solutions USA Inc.  
Supplier Information  
Company Overview**

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

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

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

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

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

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

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



Addendum No. 1

Request for Clarifications (RFC) Questions

Q1. Where can I locate the last bid tabulation if I don't know the prior bid number and due date?

**City of Beaumont Response:** This information is not relevant to the Scope of Services.

Q2. Who are your current suppliers and price?

**City of Beaumont Response:** This information is not relevant to the Scope of Services.

Q3. Do any of these chemicals need to be NSF rated?

**City of Beaumont Response:** No.

Any questions regarding this should be sent to:

Grace Wichert  
gwichert@beaumontca.gov



**Website:**  
[www.beaumontca.gov](http://www.beaumontca.gov)

**Address:**  
550 E. 6th Street  
Beaumont, CA 92223

**Phone:**  
951.769.8520

Request for Proposal  
for  
Wastewater Treatment Plant  
Chemical Supply & Delivery

**Proposals Due By:**

May 2, 2023, at 2:00 P.M. PST

**CONTACT:**

Grace Wichert  
Procurement and Contracts Specialist  
[GWichert@beaumontca.gov](mailto:GWichert@beaumontca.gov)

**RFP AVAILABLE:**

[www.publicpurchase.com](http://www.publicpurchase.com) or  
<https://www.beaumontca.gov/949/Bids-and-RFPs>



## Introduction

The City of Beaumont ("City") invites written proposals from qualified contractors to provide chemical supply and delivery to the Beaumont Wastewater Treatment Plant. The City may elect to award more than one contract for these commodities to ensure availability of product to the City.

Responses must conform to the requirements of this Request for Proposal (RFP). The City reserves the right to waive any irregularity in any proposal, withdraw or amend this RFP or reject any proposal that does not comply with this RFP or City policies.

## City of Beaumont

Founded at the turn of the 20th century, Beaumont is proud of its rich history and rural charm. The town served as a welcome "stopping-off point" for early travelers making their way from the Mohave desert to Los Angeles, and later for L.A. residents eager to vacation in Palm Springs. Some, however, set down roots, drawn by the beautiful mountain vistas, clean, crisp air, and the abundance of cherry and apple orchards. The City is located in the western portion of Riverside County and is bounded on the west by Calimesa and unincorporated areas, on the north by the unincorporated County areas (Cherry Valley), on the south by unincorporated County areas and the City of San Jacinto, and on the east by the City of Banning. The land area within the City's boundaries is approximately 26 square miles.

Beaumont provides the very best of rustic, rural beauty and charm, combined with the planned growth, abundant recreational opportunities, and rich community life offered by the finest Southern California cities. The progressive city sits at 2,612 feet in elevation between Riverside and Palm Springs in the Inland Empire. The city contains 16 city parks, including a 20-acre sports park and an extensive trails system. The Beaumont School District, with 10 schools, has an outstanding reputation, and ranks highly in the Pass Area. The city is rounded out with various local service clubs, a new state of the art community recreation center, a library, two four-star golf courses, and multiple churches. T

The City of Beaumont has been one of the fastest growing cities in California over the past 15 years and has a current population of over 55,000 residents. An average of 500 new homes have been permitted annually since 2013 and the population has grown by approximately 1,500 residents each year. Beaumont has seen significant growth in its quality of workforce with educational levels and technical skills. The community has also seen growth in its household income levels. As a result of this growth, the City must continue to provide residents with the quality of life they expect. This involves expanding park and recreational amenities, maintaining a quality police force to keep pace with growth, construction of regional surface transportation projects, and to perform economic development activities to diversify the city's tax base and increase employment opportunities in the region.



## Scope of Services

The Scope of Services for the Wastewater Treatment Plant Chemical Supply and Delivery is attached as Exhibit A.

## Term

The initial term of the agreement shall be for three (3) years, with each year renewable in one (1) year increments. The annual renewal shall be based on mutually acceptable services, cost adjustments and consistent with City policies. It is understood there is no obligation by the City to purchase any specified amount of goods or services. The selected vendor(s) shall be responsible for completing the specified services in accordance with the City's Professional Services Agreement (Exhibit C).

## Proposal Requirements

Proposals shall clearly address all the information requested herein. To achieve a uniform review process and obtain the maximum degree of comparability, it is required that proposals be organized and contain all information as specified below.

- A. **Cover Letter:** Maximum of two (2) pages serving as an Executive Summary which shall include an understanding of the scope of services. The RFP shall be transmitted with a cover letter that must be signed by an official authorized to bind the consultant contractually. The letter accompanying the RFP shall also provide the name, title, address, and telephone number of individuals with the authority to negotiate and contractually bind the consultant. The cover letter constitutes certification by the consultant that the consultant complies with nondiscrimination requirements of the State and Federal Government. An unsigned proposal or one signed by an individual unauthorized to bind the consultant may be rejected.
- B. **Introduction/Information:** Introduction of the service proposal, including a statement of understanding for the types of services contemplated. Provide a discussion on how the objectives of the scope of services will be accomplished. Provide the name of the firm submitting the proposal, its mailing address, telephone number, and the name of the individual to contact if further information is required. Any participating firms and proposed sub-consultants shall be identified and included in the proposal (all sub-consultants must be approved by City prior to signing the agreement with City).
- C. **The firm's approach to delivering the scope of services.** Provide a summary of the work plan and/or methodology and physical resources (staff and equipment) your company will commit to ensure successful project completion. Provide a description of the firm's approach to communicating effectively with City staff and officials, other stakeholders, to facilitate successful delivery of assigned tasks.



- D. Firm Profile: Provide a description of the firm, including number of professional personnel, years in business, office location(s), organizational structure (e.g., corporation, partnership, sole practitioner, etc.), areas of particular expertise, etc.
- E. Location of principal office that will be responsible for the implementation of this contract.
- F. References: Provide three (3) to five (5) references for similar services within the last three (3) years, which include: name, address, contact person, and phone number of the company, length of time services were provided and description of services provided.
- I. Scope of Services: Provide a description of the tasks, sub-tasks, and deliverables that will be provided. The Scope of Services should be presented in a logical format that can be easily attached to the Professional Services Agreement (Exhibit C).
- J. Cost proposal: Provide a comprehensive cost proposal inclusive of all fees in addition to chemical pricing, including, but not limited to, vehicle fuel surcharge, etc. All chemical cost proposals shall be in price per gallon of product.
- K. The firm will be required to have professional liability insurance including liability at a minimum of one million per occurrence, worker's compensation, and vehicle coverage including comprehensive and collision insurance naming the City of Beaumont as additional insured. The proposal shall state whether such insurances will be in force at time of contract execution.

## Submittal

Three (3) bound copies and one (1) color digital pdf copy (flash drive) of the proposal must be submitted no later than 2:00 P.M, TUESDAY, MAY 2, 2023. The cost proposal shall be submitted in a separate sealed envelope. Proposal must be labeled "RFP for Wastewater Treatment Plant Chemical Supply and Delivery". Proposals shall be submitted to:

City of Beaumont  
c/o Grace Wichert  
550 E. 6th Street  
Beaumont, CA 92223

Electronic submittals of the proposal will not be accepted. Proposals received after the closing date and time noted will not be accepted. Once submitted, proposals, including the composition of the consulting staff, cannot be altered without prior written consent of the City.

Each proposal shall be limited to a maximum of 25 pages, using a minimum 12-point font size. All costs associated with the preparation of any proposal shall be the sole responsibility of the proposer.





**\*DUE DATE FOR QUESTIONS IS THURSDAY, APRIL 13, 2023, AT 2:00 P.M. PST.**

All questions shall be submitted through **PublicPurchase.com**. Answers will be posted on the same website to allow all users to review the City's responses to all questions within one (1) week of the question due date.

**Timetable for reviewing and evaluating Proposals:**

RFP Release	Tuesday, April 4, 2023
RFC Due	Thursday, April 13, 2023 @ 2:00 PM PST
Proposal Due Date	Tuesday, May 2, 2023 @ 2:00 PM PST
Consultant Interviews (if required)	Week of May 8, 2023
Tentative Award Date	June 6, 2023

## Confidentiality

Prior to the proposal submittal deadline, all proposals will be designated confidential to the extent permitted by the California Public Records Act. After the proposal submittal deadline, all responses will be regarded as public records and will be subject to review by the public. Any language purported to render confidential all or portions of the proposals will be regarded as non-effective and will be disregarded.

## Amendments to Request for Proposals

The City reserves the right to amend the RFP by addendum prior to the final proposal submittal date.

## Non-Commitment to City

The City reserves the right to reject any and all proposals and to waive informalities and minor irregularities in any proposal reviewed. The City may reject any proposal that does not conform to the instructions provided in this RFP. Additionally, the City reserves the right to negotiate all final terms and conditions of any proposal received before entering into a final contract.

## Conflict of Interest

The Consultant shall disclose any personal or professional financial, business, or other relationships with the City that may have an impact on the outcome of this contract or any resulting project. The consultant shall also list current clients who may have a financial interest in the outcome of this contract.



## Proposal Evaluation/Selection

The City intends to engage the most qualified consultant available that demonstrates a thorough understanding of the City's needs/objectives and the ability to meet those needs/objectives.

City staff will use the following criteria to evaluate the proposals:

<b>Criteria</b>	<b>Points</b>
Proposer's ability and history in providing requested services or work for public agencies of similar size, population and need as the City.	30
Demonstrated technical competence and experience to perform services of work requested in RFP	30
Responsiveness of proposal and clarity and completeness of the proposed Scope of Services.	20
Cost Proposal	20
<b>Total</b>	<b>100</b>

The City may request a qualification interview with the highest ranked consultant(s) prior to making the final determination. The City reserves the right to reject any and all proposals.

**CONTACT WITH ANY CITY EMPLOYEE OTHER THAN THE CONTACT NAMED IS STRICTLY PROHIBITED AND WILL BE CAUSE FOR DISQUALIFICATION OF THE PROPOSAL.**



## **Exhibit "A"**

### **Scope of Service**



The following scope of services provide general description and performance requirements. It is expected that the proposal developed by each of the responding firms will provide significant additional details for implementing.

The City wishes to set up delivery of chemicals used in the treatment of wastewater with delivery to be made on an as-needed basis. Estimated chemical usage is shown in Exhibit B.

The City of Beaumont Wastewater Treatment Plant is located at:

715 W. 4th Street  
Beaumont, CA 92223

**Delivery:**

1. All deliveries shall be made Monday through Friday between 7:00 a.m. and 2:00 p.m.
2. Delivery vehicles shall be in good condition and operated by Supplier. Truck tractors and tank trailers shall conform to all applicable State and Federal regulations and be fully equipped and maintained to safely transport and deliver specified chemical product.
3. Tank trailers shall be specially designed to prevent leakage and resist rupture in the event of a collision and carry all equipment necessary to respond to an accidental chemical release.
4. Delivery Driver shall be trained and experienced in handling specified chemical product and be specifically trained to stop chemical flow in the event of an emergency. Supplier shall provide evidence of such training and experience upon request.
5. Posted Speed Limits shall be observed at all times while driving on agency property. Supplier shall be completely liable for any damage to property or personnel.
6. Delivery Equipment shall include all equipment necessary to permit the safe transfer of the specified chemical product(s).
7. Product(s) requested shall be delivered within 48 hours of agency request.
8. Should requested chemical not be available at time of delivery, Supplier shall recommend comparable alternative(s).

**Unloading shall be done in accordance with the following:**

1. Shall be done in a safe manner by Supplier in the presence of a plant operator.
2. Appropriate personal protective equipment (PPE) clothing shall be worn, and industry safety practices and procedures followed explicitly at all times.
3. Delivery driver must present chemical manifest.
4. Driver may be required to capture a sample of the product from the delivery tank in order for a plant operator to do a visual inspection.
5. Supplier to be able to provide proof of tank and hose inspections prior to delivery demonstrate that all components are in proper working order.



City will refuse delivery of product at no penalty to the City if:

1. Product does not match the specific gravity.
2. If there is debris in the sample from the delivery truck.
3. Vendor is non-compliant with industry standard safety practices and procedures.
4. Failure of Supplier to wear proper PPE while making chemical transfers.

Agency may require Supplier to furnish an affidavit stating product complies fully with specification(s), a certified analysis of the product delivered, and/or the preventative maintenance schedule of delivery truck's unloading compressor.

**Quantity:**

Exact quantities may vary from the estimates given and may be increased or decreased to meet agency's requirements. No minimum is guaranteed.

**Invoicing:**

A separate invoice shall be provided for each delivery during contract period.

**Specification:**

Supplier shall bring apparent error or omissions to City's attention.



## **Exhibit "B"**

### **Estimated Annual Usage**



Chemical	Concentration	Tank/Tote	Tank Capacity (g)	Estimated Delivery Qty (g)	Estimate Annual Usage
R.O. Antiscalant	Currently Using Spectraguard 360	Tote	275	1 Tote	2,750 gal (10 Totes)
Citric Acid	50%	Tote	275	4 Tote	6,300 gal (23 Totes)
Sulfuric Acid	93%	Tank	1150	700	2,300 gal
Liquid Ammonium Sulfate	40%	Tank	1150	700	7,800 gal
Sodium Hypochlorite	12.5%	Tank	4400	2800	25,000 gal
Sodium Bisulfite	25%	Tank	1550	1000	18,000 gal
Sodium Hydroxide	25%	Tank	1550	1000	1,000 gal

**EXHIBIT "A"**

**PROPOSAL**



Univar Solutions USA Inc.  
 8201 S. 212th  
 Kent, WA 98032-1994  
 USA



T 253-872-5000  
 F 253-572-5041  
 www.univarusa.com

April 28, 2023

City of Beaumont  
 C/O Grace Wichert  
 550 E 6<sup>th</sup> St.  
 Beaumont, CA 92223

RE: RFP for Wastewater Treatment Plant Chemical Supply and Delivery

Dear Grace;

Univar Solutions USA Inc. is pleased to offer the following prices for the RFP for Wastewater Treatment Plant Chemicals.

CHEMICAL	QUANTITY	BID PRICE	UNIT	MIN. ORDER REQUIREMENT?	COMMENTS
16140763 Sulfuric Acid 93% Tech grade	2,300 gal. annually	\$3.65	Gallon Delivered	700 gal.	
16140525 Sodium Hypochlorite 12.5% Tech grade	25,000 gal. annually	\$2.42	Gallon Delivered	2,800 gal.	
16142224 Sodium Bisulfite 25% Tech grade	18,000 gal. annually	\$1.55	Gallon Delivered	1,000 gl.	
16147884 Caustic Soda 25% Tech grade	1,000 gal. annually	\$2.35	Gallon Delivered	1,000 gal.	
16135627 Liquid Ammonium Sulfate Tech grade	7,800 gal. annually	\$3.60	Gallon Delivered	700 gal.	
16148403 Citric Acid 50% Tech grade	6,330 gal. annually	\$13.67	Gallon Delivered	4 totes	The tote is 275 gal.
RO Anitscalant		No bid			

The pricing is firm for the contract term of Three years from the award.

All other information presented within the original bid/offer, including the agreed-upon terms, conditions, etc. remains the same.

Thank you for the opportunity to offer bid pricing to the City of Beaumont. We very much appreciate it.

Sincerely,

*Jennifer Perras*

Municipal Specialist

Western Region

Univar Solutions USA Inc.

P – (253) 872-5000

F – (253) 872-5041

[jennifer.perras@univarsolutions.com](mailto:jennifer.perras@univarsolutions.com)

[www.univarsolutions.com](http://www.univarsolutions.com)

**Please Note:** Seller shall indemnify Buyer for losses to the extent caused by Seller's negligence or breach of contract. Neither party is liable for incidental or consequential damages. Seller's liability is limited to the purchase price of the goods. SELLER MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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

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

**EXHIBIT "B"**

**CERTIFICATES OF INSURANCE AND ENDORSEMENTS**



# CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)  
05/31/2022

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

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

<b>PRODUCER</b> Aon Risk Services Central, Inc. Philadelphia PA Office 100 North 18th Street 15th Floor Philadelphia PA 19103 USA	<b>CONTACT NAME:</b> PHONE (A/C. No. Ext): (866) 283-7122      FAX (A/C. No.): 800-363-0105		
	<b>E-MAIL ADDRESS:</b>		
<b>INSURED</b> Univar Solutions USA Inc. 3075 Highland Parkway Suite 200 Downers Grove IL 60515 USA	<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
	INSURER A: ACE American Insurance Company		22667
	INSURER B: ACE Fire Underwriters Insurance Co.		20702
	INSURER C: Indemnity Insurance Co of North America		43575
	INSURER D: Illinois Union Insurance Company		27960
	INSURER E:		
INSURER F:			

**COVERAGES**      **CERTIFICATE NUMBER: 570093377463**      **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**

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GENL AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			XSLG47304775 SIR applies per policy terms & conditions	06/01/2022	06/01/2023	EACH OCCURRENCE \$3,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$3,000,000 MED EXP (Any one person) Excluded PERSONAL & ADV INJURY \$3,000,000 GENERAL AGGREGATE \$3,000,000 PRODUCTS - COMP/OP AGG \$3,000,000
A	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			ISA H10699058 Commercial Auto	06/01/2022	06/01/2023	COMBINED SINGLE LIMIT (Ea accident) \$5,000,000 BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
D	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION			XCEG27380566009 SIR applies per policy terms & conditions	06/01/2022	06/01/2023	EACH OCCURRENCE \$4,000,000 AGGREGATE \$4,000,000
C	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N N/A	WLRC70303085 AOS WLRC70303048 MA	06/01/2022	06/01/2023	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EA EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000
D	Env Site Liab			PPLG71507944002 Pollution-ClaimsMade Form SIR applies per policy terms & conditions	06/01/2022	06/01/2025	Aggregate \$16,000,000 Ea Condition \$1,000,000 SIR \$1,000,000

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

<b>CERTIFICATE HOLDER</b>  Univar Solutions USA Inc. 3075 Highland Parkway, Suite 200 Downers Grove IL 60515 USA	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE  <i>Aon Risk Services Central, Inc.</i>
--	--

Holder Identifier :

Certificate No : 570093377463





# ADDITIONAL REMARKS SCHEDULE

AGENCY Aon Risk Services Central, Inc.		NAMED INSURED Univar Solutions USA Inc.	
POLICY NUMBER See Certificate Number: 570093377463			
CARRIER See Certificate Number: 570093377463	NAIC CODE	EFFECTIVE DATE	

**ADDITIONAL REMARKS**

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,  
 FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER	
INSURER	
INSURER	
INSURER	

**ADDITIONAL POLICIES** If a policy below does not include limit information, refer to the corresponding policy on the ACORD certificate form for policy limits.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
	AUTOMOBILE LIABILITY							
A				MMT H10699125 Truckers Liability	06/01/2022	06/01/2023	Combined Single Limi	\$5,000,000
	WORKERS COMPENSATION							
B		N/A		SCFC70302962 WI	06/01/2022	06/01/2023		
A		N/A		WCUC70303000 Excess WC--CA OH OR,WA SIR applies per policy terms & conditions	06/01/2022	06/01/2023		
	OTHER							
	<input checked="" type="checkbox"/> Claims Made Form							

**CHUBB®**

**SIGNATURES**

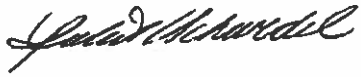
Named Insured <b>Univar Solutions Inc.</b>			Endorsement Number <b>3</b>
Policy Symbol <b>XSL</b>	Policy Number <b>G47304775</b>	Policy Period <b>06/01/2022 TO 06/01/2023</b>	Effective Date of Endorsement
Issued By (Name of Insurance Company) <b>ACE American Insurance Company</b>			

THE ONLY COMPANY APPLICABLE TO THIS POLICY IS THE COMPANY NAMED ON THE FIRST PAGE OF THE DECLARATIONS.

By signing and delivering the policy to you, we state that it is a valid contract.

- INDEMNITY INSURANCE COMPANY OF NORTH AMERICA (A stock company)**
- BANKERS STANDARD INSURANCE COMPANY (A stock company)**
- ACE AMERICAN INSURANCE COMPANY (A stock company)**
- ACE PROPERTY AND CASUALTY INSURANCE COMPANY (A stock company)**
- INSURANCE COMPANY OF NORTH AMERICA (A stock company)**
- PACIFIC EMPLOYERS INSURANCE COMPANY (A stock company)**
- ACE FIRE UNDERWRITERS INSURANCE COMPANY (A stock company)**
- WESTCHESTER FIRE INSURANCE COMPANY (A stock company)**

436 Walnut Street, P.O. Box 1000, Philadelphia, Pennsylvania 19106-3703



JULIET SCHWEIDEL, Secretary



JOHN J. LUPICA, President

Authorized Representative

## NON-CONTRIBUTORY ENDORSEMENT FOR ADDITIONAL INSURED

Named Insured Univar Solutions Inc.			Endorsement Number 46
Policy Symbol XSL	Policy Number G47304775	Policy Period 06/01/2022 to 06/01/2023	Effective Date of Endorsement
Issued By (Name of Insurance Company) ACE American Insurance Company			

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

### THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**This endorsement modifies insurance provided under the following:**

### EXCESS COMMERCIAL GENERAL LIABILITY POLICY

#### Schedule

#### Organization

Any additional insured with whom you have agreed to provide such non-contributory insurance, pursuant to and as required under a written contract executed prior to the date of loss.

#### Additional Insured Endorsement

*(If no information is filled in, the schedule shall read: "All persons or entities added as additional insureds through an endorsement with the term "Additional Insured" in the title)*

For organizations that are listed in the Schedule above that are also an Additional Insured under an endorsement attached to this policy, the following is added to Section IV.4:

If other insurance is available to an insured we cover under any of the endorsements listed or described above (the "Additional Insured") for a loss we cover under this policy, this insurance will apply to such loss and is primary (subject to satisfaction of the "retained limit"), meaning that we will not seek contribution from the other insurance available to the Additional Insured. Your "retained limit" still applies to such loss, and we will only pay the Additional Insured for the "ultimate net loss" in excess of the "retained limit" shown in the Declarations of this policy.

---

Authorized Representative

**WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US**

Named Insured Univar Solutions Inc.			Endorsement Number 67
Policy Symbol XSL	Policy Number G47304775	Policy Period 06/01/2022 to 06/01/2023	Effective Date of Endorsement
Issued By (Name of Insurance Company) ACE American Insurance Company			

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**This endorsement modifies insurance provided under the following:**

**EXCESS COMMERCIAL GENERAL LIABILITY POLICY****SCHEDULE****Name of Person or Organization:**

Any person or organization against whom you have agreed to waive your right of recovery in a written contract, provided such contract was executed prior to the date of loss.

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

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Authorized Agent



## ADDITIONAL INSURED WHERE REQUIRED BY WRITTEN CONTRACT

Named Insured Univar Solutions Inc.			Endorsement Number 22
Policy Symbol XSL	Policy Number G47304775	Policy Period 06/01/2022 to 06/01/2023	Effective Date of Endorsement
Issued By (Name of Insurance Company) ACE American Insurance Company			

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

### THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**This endorsement modifies insurance provided under the following:**

#### **EXCESS COMMERCIAL GENERAL LIABILITY POLICY**

The following is added to Section II.2 – Who Is An Insured:

- e. Any person or organization that you are required to include as an additional insured under this policy because of a written contract that:
- 1) Is in effect during this policy period; and
  - 2) Was executed prior to the "occurrence" of the "bodily injury" or "property damage"; and
  - 3) Qualifies as an "insured contract" as defined in this policy.

Any such person or organization is an additional insured only for "bodily injury" and "property damage" resulting from:

- a. "your work" that you do for that additional insured pursuant to such contract; or
- b. "your product" distributed or sold to that additional insured pursuant to such contract; and

such person is only an additional insured for "occurrences" taking place during the period of time required by such contract or until the end of the policy period, whichever is sooner.

However:

- i) The insurance afforded to such additional insured only applies to the extent permitted by law; and
- ii) If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

In the event that the Limits of Insurance provided by this policy exceed the Limits of Insurance required by the written contract:

- x. The insurance provided by this endorsement shall be limited to the Limits of Insurance required by the written contract; and
- y. This endorsement shall not increase the Limits of Insurance stated in the Declarations under Item 3. Limits of Insurance pertaining to the coverage provided herein.

Any coverage provided by this endorsement to an additional insured shall be excess over any other valid and collectible insurance available to the additional insured whether primary, excess, contingent or on any other basis unless the written contract specifically requires that this insurance apply on a primary or non-contributory basis.

In accordance with the terms and conditions of the policy and as more fully explained in the policy, as soon as practicable, each additional insured must give us prompt notice of any "occurrence" which may result in a claim, forward all legal papers to us, cooperate in the defense of any actions, and otherwise comply with all of the policy's terms and conditions.

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Authorized Representative

## ADDITIONAL INSURED - DESIGNATED PERSON OR ORGANIZATION

Named Insured Univar Solutions Inc.			Endorsement Number 4
Policy Symbol XSL	Policy Number G47304775	Policy Period 06/01/2022 to 06/01/2023	Effective Date of Endorsement
Issued By (Name of Insurance Company) ACE American Insurance Company			

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

### THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**This endorsement modifies insurance provided under the following:**

#### EXCESS COMMERCIAL GENERAL LIABILITY POLICY

##### SCHEDULE

**Name of Person or Organization:** Any person or organization whom you have agreed to include as an additional insured under a written contract, provided such contract was executed prior to the date of loss.

**A. 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" 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:

1. In the performance of your ongoing operations; or
2. In connection with your premises owned by or rented to you.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

**B. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance And Retained Limit:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

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Authorized Representative

Univar Solutions USA Inc.  
8201 S. 212th  
Kent, WA 98032-1994  
USA

T 253-872-5000  
F 253-572-5041  
www.univarusa.com



## References

1. County & County of San Francisco  
1 Dr. Carlton B Goodlett Place  
San Francisco, CA 94102

Contact: Lin Repola- [linda.repola@sfgov.org](mailto:linda.repola@sfgov.org) or David Agam- [dagam@sfgwater.org](mailto:dagam@sfgwater.org)  
Phone: 415-554-4564 | Cell: 415-867-6469

Supply and Delivery of Bulk Sodium Hypochlorite, Caustic Soda and Sodium Bisulfite servicing for the past 10 years.

2. East Bay Mud  
PO Box  
Oakland, CA 946231

Contact: John Grimes, Purchasing  
Email- [john.grimes@ebmud.com](mailto:john.grimes@ebmud.com)  
Supply and Delivery of Bulk Sodium Hypochlorite, Bulk Caustic Soda servicing for the past 10years.

3. City of Riverside  
WTP  
San Bernardino, CA 92408

Contact: Shiloh Rogers, Procurement & Contract Specialist  
Email-[SARogers@riverside.gov](mailto:SARogers@riverside.gov)  
Phone 951-826-5562  
Supply and Delivery of Sodium Hypochlorite servicing for the past 4+ years.

[addressee]  
[date]  
[page #]

4. BACC-Bay Area Chemical Consortium  
Over 100 locations within Northern California

Contact: each city, info listed below.

Supply and Delivery of Sodium Hypochlorite, Caustic Soda, Sodium Bisulfite servicing for the past 6 years.

- City of Stockton, CA – Kathryn Garcia [Kathryn.Garcia@stocktonca.gov](mailto:Kathryn.Garcia@stocktonca.gov)  
Phone: 209-937-8232
- City of Turlock, CA- Lisa Quiroga [equiroga@turlock.ca.us](mailto:equiroga@turlock.ca.us)  
Phone: 209-668-5402
- Marin Municipal, CA- Jim Kenney [jkenney@marinwater.org](mailto:jkenney@marinwater.org)  
Phone: 415-945-1501

5. City of Los Angeles  
Los Angeles, CA

Contact: Katherin Quinn-

Email: [Katherine.Quinn@lacity.org](mailto:Katherine.Quinn@lacity.org)

Phone: 310-648-5665

Supply and Delivery of Sodium Hypochlorite for the past 4+ years

6. County Sanitation Districts of Los Angeles County  
PO Box 7998  
Whittier, CA 90607-4998

Contact: Martha Ibarra

Emails: [mibarra@lacsdsd.org](mailto:mibarra@lacsdsd.org)

Phone: (562) 908-4288 ext. 1423

For Supply and Delivery of Bulk Sodium Hydroxide (Caustic Soda) 50% and Calcium Hydroxide 45%, have been servicing for 6 years

Over the past 10 years, Univar has participated in 100's of Municipal bids, we have listed the 6 projects represent our capabilities in California.

All of our operational personnel participated in making sure all delivery requirements were met to each customer.

Our customer service department takes care of all orders, they communicate with operations and the customer to make sure all requests are satisfied.

We meet 100% of our contractual obligations; any municipality that is under contract with Univar is serviced first if there is a shortage in the market place.

## **NACD Responsible Distribution Process Code of Management Practice**

Each member company shall have an active program designed to continuously improve safety and reduce incidents. This Code does not impose upon member companies any obligation to guarantee compliance by third parties, i.e., parties over whom the member companies have no control. This program shall include:

### **I. Risk Management**

- A. Senior management commitment, through policy, communications, and resources, to on-going improvements in chemical distribution safety.
- B. Regular review with suppliers of the hazards of materials.
- C. Identification and implementation of risk reduction measures.

### **II. Compliance Review and Training**

- A. A process for monitoring regulations and industry practices for their application to chemical distribution activities.
- B. A process for implementing applicable regulations and industry practices that apply to chemical distribution activities.
- C. Training for all employees in the implementation of applicable regulations, as well as member company's specific requirements.
- D. A process for review of employee compliance with applicable regulations and member company's specific requirements and review of outside contractor and re-seller compliance with member company's specific requirements.

### **III. Carrier Selection**

- A. A process for selecting carriers to transport chemicals that includes carrier safety and fitness, security, regulatory compliance, and performance review.

IV. Handling and Storage

- A. Procedures for ensuring that containers are appropriate for the chemical being shipped, comply with regulatory requirements, and are free from leaks and visible defects.
- B. Criteria for the cleaning and re-use of transportation equipment and chemical containers, and the proper disposal of cleaning residues
- C. Procedures for loading and unloading chemicals at the member company's facilities that result in protection of personnel, a reduction in emissions to the environment, and ensures that chemicals are loaded and unloaded into and out of proper storage facilities.
- D. A program for providing manufacturer guidance and information to customers, warehouses, terminals and/or carriers on procedures for loading, unloading, and/or storing chemicals.
- E. A process for selecting owned and contracted facilities and sites for chemical storage or handling that emphasizes safety, fitness and includes reviews.
- F. Documentation of current operating procedures for handling and storing chemicals.
- G. Facility design, construction, maintenance, inspection, and security practices that promote facility integrity, consistent with recognized codes and regulations.
- H. Develop a process for addressing chemical site and chemical transportation security.
- I. Provisions for control of processes and equipment during emergencies resulting from natural events, utility disruptions, and other external conditions.
- J. Procedures to properly label and mark packages and containers.

V. Job Procedures and Training

- A. Identification of the skills and knowledge necessary to perform each job.
- B. Establishment of procedures and work practices for safe operating and maintenance activities.
- C. Training for all personnel to reach and maintain proficiency in safe work practices and the skills and knowledge necessary to perform their job, including confirmation of competence.
- D. Programs designed to assure that personnel in safety critical jobs are fit for duty and are not compromised by external influences, including alcohol and drug abuse.
- E. Outside Contractors: In areas where hazardous materials are present, members shall have a process in place to inform contractors of the known hazards and the emergency action plan.

VI. Waste Management and Conservation Practices

- A. Procedures to ensure that all self-generated waste and empty containers are disposed of in a responsible manner, and in accordance with existing regulations.
- B. A clear commitment by senior management through policy communications, resources, and programs to ongoing waste reductions and pollution prevention at each member facility.
- C. A commitment to institute resource conservation measures.

VII. Emergency Response and Public Preparedness

- A. A process for responding to, reporting on, and investigating chemical distribution incidents and releases involving the member company's chemicals, and implementation of appropriate preventive measures developed from that investigative process.
- B. A system of internal investigation, reporting, appropriate corrective action, and follow-up for each incident and/or near miss that result or could have resulted in chemical incidents or releases.
- C. Procedures for making emergency response information concerning the member company's chemicals available to response agencies.



- D. Communication with state and/or local emergency planning commissions and response organizations on the potential hazards of the member company's chemicals.
- E. Annual review, testing, and assessment of the operability of the member company's written emergency action and fire prevention plan and/or emergency response plan.
- F. Facility tours for first responders to promote emergency preparedness and to provide current knowledge of facility operations.
- G. Coordination of the written facility emergency response plan with the local emergency response team and other facilities. If no community plan exists, the facility should assist with efforts to create one.
- H. Participation in the Local Emergency Planning Committee's process to develop and periodically test the local emergency response plan.

VIII. Community Outreach

- A. Interaction with organizations, associations, government officials and/or the public on behalf of NACD's Responsible Distribution Process<sup>SM</sup>.
- B. Information and updated for employees on the Responsible Distribution Process<sup>SM</sup> to encourage key employees to become involved in community outreach efforts.
- C. Advocacy of responsible public policies and regulations for chemical distribution.

IX. Product Stewardship

Customers

- A. A process to qualify customers as prescribed by governmental regulation.
- B. Member companies should work with customers to foster appropriate dissemination of information on the proper use, handling and disposal of products commensurate with product risk. A member may decide to cease doing business with customers whose practices are clearly inconsistent with the Responsible Distribution Process<sup>SM</sup>.

X. **Internal RDP Audits**

- A. Member companies shall establish documented procedures for regularly scheduled INTERNAL AUDITS to verify the implementation of policies and procedures supporting the RDP Code of Management Practice. The audits will be used to evaluate the effectiveness of the policies and procedures. Internal Audits shall be done on a yearly basis beginning with successful completion of the Interim Verification Process.
- B. Audits shall be recorded and results brought to the attention of appropriate management personnel who must take timely corrective or preventive action. Annual audit results should be retained until the next Third-party On-Site Verification is completed.

XI. **RDP Corrective and Preventive Action**

- A. Member companies shall establish a CORRECTIVE AND PREVENTIVE ACTION system for RDP related issues. This system should permit the identification and communication of inadequacies or improvements in each member company's implementation of RDP.
- B. Member companies shall establish and maintain procedures for implementing corrective action and preventive actions arising from internal and external audits or other sources. Any corrective or preventive action taken to resolve the cause or RDP implementation inadequacy shall be appropriate, as determined by member company management, to the magnitude of the cause or inadequacy and commensurate with the risk involved.

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XII. RDP Document and Data Control

- A. Member companies shall establish and maintain a documented system to control all policies and procedures supporting RDP. In addition, member companies shall maintain a documented system to control the documents and data relating to RDP itself as issued by the National Association of Chemical Distributors (NACD).
- B. Data includes any of the above that is electronically stored and utilized.
- C. These documented procedures shall include provisions for review and approval of any new or revised policies and procedures by the authorized personnel within the member company.
- D. A master list or functionally equivalent document control system identifying the current version of each document shall be established and be readily available to preclude the use of invalid and/or obsolete documents. The system shall ensure that:

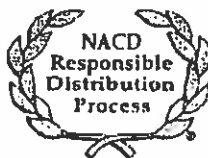
Changes to documents and data shall be reviewed and approved by the same function/organization that performed the original review and approval, unless specifically designated otherwise. These functions/organizations shall have access to pertinent background information upon which to base their review and approval. Where practical, the nature of the change shall be identified in the document or appropriate attachments.

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## NACD Responsible Distribution Process

### Guiding Principles

1. To recognize and respond to community concerns about chemicals, their handling, and transportation.
2. To make health, safety, security, and environmental considerations a priority in our planning for all existing and new operations, products, processes, and facilities.
3. To inform emergency response officials, employees, customers, and the public of manufacturer's information on chemical-related health or environmental hazards, and the manufacturer's recommendations on protective measures.
4. To work with customers, in accordance with manufacturer's recommendations, on product stewardship including handling, use, transportation, and disposal of chemical products.
5. To operate our plants and facilities in a manner that protects the health and safety of our employees, the public and the environment.
6. To cooperate in resolving problems created by past handling and disposal of hazardous chemicals.
7. To participate with government and others in creating responsible laws, regulations, and practices to help safeguard the community, workplace, and environment.
8. To promote the principles and practices of Responsible Distribution Process<sup>SM</sup> by sharing experiences and offering assistance to others who produce, handle, use, transport, or dispose of chemicals.



## RDP – What's It?

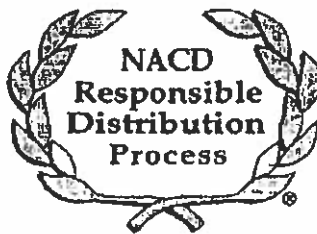
Univar is a member of the National Association of Chemical Distributors. This trade association developed the Responsible Distribution Process<sup>SM</sup> (RDP), which focuses on the responsible management and distribution of chemicals.

RDP emphasizes continual improvement in the health, safety, security, and environmental performance of all NACD member companies. This includes a commitment to comply with environmental, health and safety regulations; providing critical product safety information to employees, contractors and customers; while working with local communities and neighbors to respond to their needs. RDP consists of a set of Guiding Principles and the Code of Management Practice. This Code includes 47 specific requirements, divided into twelve sections:

- Risk Management
- Compliance Review and Training
- Carrier Selection
- Handling and Storage
- Job Procedures and Training
- Waste Management & Conservation
- Emergency Response/Public Preparedness
- Community Outreach
- Product Stewardship
- Internal RDP Audits
- RDP Corrective & Preventive Action
- RDP Document & Data Control

A key requirement of RDP and a condition of membership in NACD is verification of members' RDP policies and procedures by a third-party firm. Univar received the first Third-Party verification in 1995 and received a compliance certificate. We were re-certified in 2000 and again in 2004.

Univar maintains a leadership position in NACD, and remains firmly committed to the Responsible Distribution Process and its objective of promoting continual improvement in chemical handling and distribution.





**Univar Solutions USA Inc.  
Safety Information**

**I. INTRODUCTION**

**(A) Scope**

Univar USA Inc. (UNIVAR) is committed to conducting its operations in a manner that minimizes the risk to the safety and health of our employees, customers, the public and the environment.

**(B) Purpose**

This Injury & Illness Prevention Program (IIPP) has been developed by UNIVAR for its employees who may be exposed to general and/or chemical hazards. This program meets the requirements of Senate Bill 198 enacted under California Labor Code Section 6401.7 and the General Industry Safety Orders Section 3203.

This IIPP represents only a portion of UNIVAR's Safety and Environmental Program. The program includes several written programs and manuals such as the Operating Standards Manual, Emergency Contingency Plan, Risk Management Program, Process Safety Management Program, Hazard Communication Program, Respiratory Protection Program, Confined Space Entry Program, Lock Out/Tag Out Program, Hot Work Program and Documentation Manual. The IIPP is not intended to be a standalone program but rather a supplement to all of the other current programs. The primary functions of this program are to inform employees of the regulation, highlight areas of occupational hazards, direct them to the proper means of minimizing the identified hazards and define the lines of communication between employees and management.

This IIPP is available for review by employees, government agencies, vendors, contractors or any other parties who have a need to examine the Program. The Program includes:



**Univar Solutions USA Inc.  
Safety Information**

<b>Employer Information:</b>	Name, address, telephone number, type of business and main activity.
<b>Administrator Information:</b>	Person with the authority and responsibility to administer the program.
<b>Safety &amp; Health Hazard Evaluation:</b>	A two step process which includes job classification and occupational hazard analysis.
<b>Standard Operating Procedures/ Operating Standards:</b>	Programs and procedures necessary to ensure employee safety and health in every aspect of their job.
<b>Inspection Program:</b>	Inspections are conducted: (1) when the IIPP is first established; (2) whenever new substances, processes, procedures, or equipment are introduced into the workplace; (3) whenever a new or previously unrecognized hazard is identified; (4) when occupational injuries or illnesses occur; and (5) whenever workplace conditions warrant an inspection. Scheduled daily, weekly and monthly inspections.
<b>Training Program:</b>	Employees receive initial, refresher and ongoing training as required.
<b>Communication:</b>	Provides a means to instruct employees on the hazards associated with each job classification; ensure employees' compliance with standard operating procedures and safe work practices; encourage employees to participate in the safety program and identify areas of concern and/or hazards.
<b>Safety Award Program:</b>	Company program that encourages and rewards employees for working safely.



**Univar Solutions USA Inc.  
Safety Information**

**Progressive Disciplinary Action Policy:** Company policy that disciplines employees that do not perform their job functions according to

established policies, procedures and guidelines. These policies, procedures and guidelines have been developed to establish a safe working environment for all of our employees and any deviation from them will not be tolerated.

**Recordkeeping Requirements:** Includes this written program; hazard analysis; the OSHA 300 Log; Standard Operating Procedures; inspections; training; meeting records and disciplinary actions for a period of time prescribed

**Program Reviews:** Review and assess this and other company programs as required to ensure their effectiveness and applicability.



## **UNIVAR SOLUTIONS SECURITY PROGRAM**

As an international distributor of industrial chemicals, a participant in the National Association of Chemical Distributors Responsible Distributor program, and an active member of the communities we serve, Univar Solutions USA Inc. (Univar) has long had policies and procedures in place to ensure the security of our products, facilities, employees and communities. The following summary outlines the major provisions of Univar's Security Program which reflects not only prudent measures to maximize the secure and safe handling of chemicals, but also the security requirements of various federal programs related to management of hazardous materials including DOT hazardous material transportation requirements, DHSCFAT program and Department of Commerce import rules among others. Note that this description is necessarily a broad overview of Univar's security program as various agencies limit the security related information that can be disclosed.

For our business partners that are C-TPAT certified please consider the following outline a demonstration of the degree to which Univar complies with C-TPAT security criteria.

### **BUSINESS PARTNER REQUIREMENT**

Univar has a written and verifiable process for the selection of business partners including manufacturers, product suppliers and vendors. Other internal requirements such as; capability of meeting contractual security requirements and financial soundness are included in the verification process.

### **POINT OF ORIGIN**

Univar ensures its foreign business partners have security criteria in place that enhances the integrity of the shipment at point of origin. Periodic reviews of foreign business partners' processes and facilities are conducted based on risk.

### **CONTAINER SECURITY**

Container integrity is maintained as mandated by international cargo transport laws and regulations.

### **EN ROUTE SECURITY**

Hazardous cargo is secured while in transit. Additionally, products and routes are annually evaluated to assess potential security risks.

### **COMMON CARRIER EVALUATION**

In addition to the above security measures, Univar has taken steps to verify our common carriers' compliance with DOT's HM-232 rules. Each common carrier has been asked to certify their security compliance with regards to HM-232.

### **PERSONNEL SECURITY**

Personnel security begins with hiring qualified employees. Univar has established policies and procedures to ensure we hire and maintain qualified employees. These policies and procedures include, but are not limited to:

- Pre-employment background checks
- Pre-employment and random drug tests for drivers and warehouse staff
- Policy on "Standards of Conduct" (included in the Employee Handbook)
- Policy on "Confidential Information" (included in the Employee Handbook)
- Checkout procedures for terminating employees
- Referral of illegal or criminal activities to law enforcement

### **PHYSICAL ACCESS CONTROLS & SECURITY, PROCEDURAL & IT SECURITY**

#### **SECURITY & VULNERABILITY ASSESSMENT**

Due to the hazardous nature of the chemicals we manage and distribute, Univar constantly assesses its security and vulnerability concerning internal or external threats that could potentially disrupt operations or harm our employees, communities or the environment. Univar's security program addresses the following potential sources of loss or disruption:

- Theft, vandalism, and break-ins
- Theft of confidential business information
- Sabotage of equipment, utilities, and records
- Product contamination and tampering
- Bomb threats
- Civil unrest disrupting plant access and operations
- Workplace violence and assaults

Additionally, Univar has developed a risk-based matrix to identify areas of concern and has taken steps to address those areas of concern.

The initial security evaluations periodically reviewed by the site security official to evaluate the integrity and effectiveness of security policies, procedures and systems.

#### **UNAUTHORIZED ACCESS**

Univar has established minimum facility security guidelines that must be implemented and adhered to by each facility. Those minimum guidelines include but are not limited to:

- Perimeter and warehouse security
- Equipment security
- Access controls for production areas, warehouses, utility facilities, and offices
- Signs to direct visitors and vehicles to the appropriate entry points
- Visitor control

Univar employees have been trained to question unescorted person(s) within the operating areas, and to be watchful for unusual activity on company property or in the immediate surrounding areas.

#### **SITE SECURITY COORDINATOR**

Each Univar facility has designated an employee, and an alternate, as the site security coordinator. This person(s) is responsible for performing the following security management functions:

- Prepare and implement a site specific security program consistent with the requirements herein
- Establish relationships with law enforcement and emergency response agencies
- Manage incident reporting procedures, conduct incident investigations, and if necessary, conduct investigations into breaches of company security policy
- Train employees about security awareness
- Address security issues in an emergency, participate in crisis management planning and ensure appropriate execution in emergency
- Periodically reassess the facility's site security program

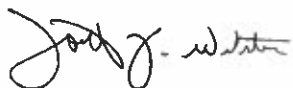
#### **TRAINING**

The Security Coordinator or his/her designee will train site personnel upon hire and every three years thereafter on the site security program. At a minimum, training includes:

- Company security objectives
- Specific site security procedures:
  - Product integrity
  - Personnel security
  - Facility security
  - En-route security
- Employee responsibilities

Should you have any general questions regarding Univar site and transit security program, please contact Jon Webster, Senior Vice President, North America Supply Chain & Operations at (425)241-7138 or Jeff Dixon, Director, International Trade Services at (281)543-8771.

Respectfully,



---

Jonathan (Jon) Webster  
Senior Vice President  
North America Supply Chain & Operations

**COMMON CARRIER EVALUATION**

In addition to the above security measures, Univar has taken steps to verify our common carriers' compliance with DOT's HM-232 rules. Each common carrier has been asked to certify their security compliance with regards to HM-232.

Should you have any questions regarding any of the items noted in this security program summary, please feel free to contact your local Univar representative or myself at (425) 889-3776.

Respectfully,

A handwritten signature in black ink, appearing to read 'Ed Higbee', with a horizontal line extending to the right.

Ed Higbee  
Director – Regulatory, Health & Safety

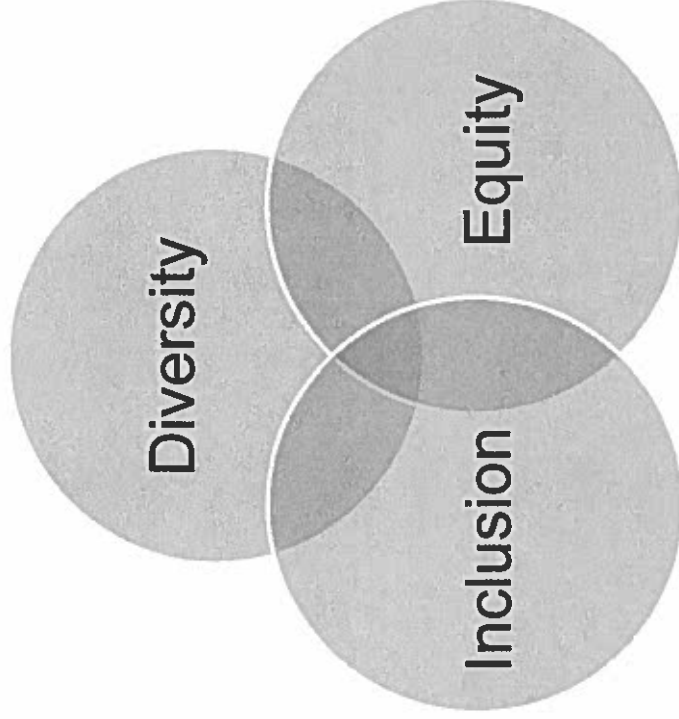
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## Our belief system

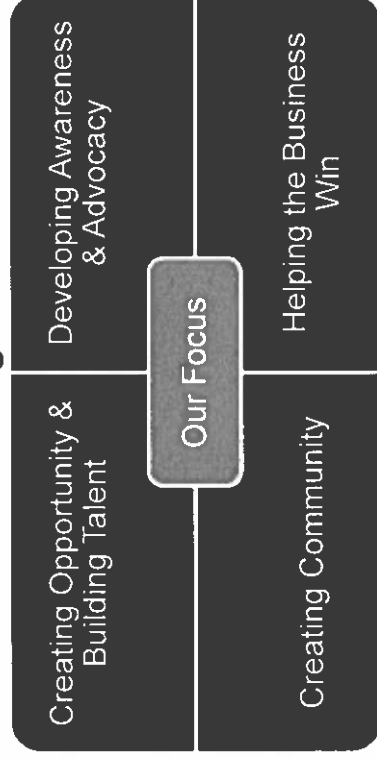


As an organization, we are committed to fostering a safe, collaborative, supportive and respectful environment that values diverse perspectives, mitigates unconscious bias and enables a culture where employees are able to bring their authentic self to work.

### *Taking Action to Advance*



### *Our Strategic Pillars*



"At the core of the solutions we deliver are our people -- our greatest strength. There's no limit to what we can achieve together when each of us knows that our ideas and perspectives are valued no matter our background, heritage, gender, orientation, religion, education, or any other expressive attribute."  
**David Jukes – President & Chief Executive Officer**



## Univar Solutions Policy

<b>Equal Employment Opportunity and Affirmative Action Policy</b>			
Number: USA-06000	Effective Date: January 1, 2020	Supersedes: June 1, 2015	Page 1 of 3

### 1. DEFINITION

- 1.1 **Equal Employment Opportunity** is an individual's freedom from discrimination on the basis of race, color, religion, creed, sex, sexual orientation, gender identity pregnancy (including childbirth, lactation and related medical conditions), age (40 and over), national origin or ancestry, physical or mental disability, genetic information (including testing and characteristics) or any other consideration protected by federal, state or local laws.
- 1.2 **Affirmative Action** is an employer's standard for proactively recruiting, hiring and promoting women, minorities, disabled individuals and veterans.

### 2. POLICY

- 2.1 It is the Company's policy to comply with all applicable federal, state and local laws governing nondiscrimination in employment and to ensure equal opportunity in all terms and conditions of employment or potential employment. The Company's commitment to equal opportunity employment applies to all persons involved in the Company's operations and we prohibit unlawful discrimination by any employee, including supervisors and co-workers.
- 2.2 The Company prohibits discrimination and harassment against any employee or applicant for employment because of race, color, religion, creed, sex, sexual orientation, gender identity pregnancy (including childbirth, lactation and related medical conditions), age (40 and over), national origin or ancestry, physical or mental disability, genetic information (including testing and characteristics) or any other consideration protected by federal, state or local laws.
- 2.3 The Company has established Affirmative Action Programs under EO 11246, Section 503 of the Rehabilitation Act, as amended, and the Vietnam Era Veteran's Readjustment Assistance Act of 1974, as amended ("VEVRAA"). The Company is committed to equal employment opportunity and engages in affirmative action measures to ensure that qualified applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.

Owner Name: VP of HR, USA	Review Period: Every 2 Years	Next Review Date: 01/01/2022
Owner Signature		

\*\*Once printed, this document may be out of date. Please be sure to check online for the most up-to-date version.  
This document is for internal purposes only and is confidential.  
Any external distribution, without Legal Department involvement, is subject to disciplinary action, up to and including, termination.

## Equal Employment Opportunity and Affirmative Action Policy

Number: USA-06000	Effective Date January 1, 2020	Supersedes: June 1, 2015	Page 2 of 3
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- 2.4 The Company will:
- 1) Recruit, hire, train and promote qualified persons in all job titles, without regard to any legally protected status;
  - 2) Ensure that employment decisions are based only valid job requirements;
  - 3) Ensure that all personnel actions and employment activities such as compensation, benefits, promotions, layoffs, Company-sponsored programs, and tuition assistance will be administered without regard to any legally protected status; and,
  - 4) provide reasonable accommodation to known physical or mental limitations of an otherwise qualified employee or applicant for employment, unless the accommodation would impose undue hardship on the operation of our business or pose a direct threat to the health and safety of the individual or others.
- 2.5 Employees and applicants for employment will not be subjected to harassment, intimidation, threats, coercion or discrimination because they have engaged or may engage in (1) filing a complaint, (2) opposing any act or practice made unlawful by, or exercising any other right protected by, any Federal, State or local law requiring equal opportunity, including Section 503 of the Rehabilitation Act, the affirmative action provisions of VEVRAA, and Executive Order 11246 or (3) assisting or participating in an any investigation, compliance evaluation, hearing, or any other activity related to the administration of any Federal, State or local law requiring equal opportunity, including Section 503 of Rehabilitation Act, the affirmative action provisions of VEVRAA, and Executive Order 11246.
- 2.6 The Company has established an audit and reporting system which enables us to measure the effectiveness of our program, indicate any need for remedial action, determine the degree to which our objectives have been attained, determine whether protected veterans and individuals with disabilities had had the opportunity to participate in company-sponsored activities, measure our compliance with the program's specific obligations, and document actions taken to comply with these obligations. Company employees and applicants may review the non-confidential portions of the affirmative action plans during regular business hours by contacting Human Resources.
- 2.7 Individuals who have been subjected to any form of discrimination, or if they are aware of an incident of discrimination involving another individual, should provide a written or verbal report to their supervisor, another member of management, or Human Resources. The report should be specific and should include the names of the individuals involved, the names of any witnesses and any documentary evidence (e-mails, notes, etc.). The Company will conduct a thorough and objective investigation in a timely fashion and attempt to resolve the situation. The investigation will be completed and a determination made and communicated to you as soon as practical. If the Company determines that this policy has been violated, disciplinary action, up to and including immediate discharge, will be taken. Disciplinary action may be taken when an investigation reveals conduct on the part of an employee that does not rise to the level of

## Equal Employment Opportunity and Affirmative Action Policy

Number: USA-06000	Effective Date January 1, 2020	Supersedes: June 1, 2015	Page 3 of 3
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unlawful discrimination, but is nevertheless inappropriate. Appropriate action may also be taken to deter future discrimination or misconduct.

### 3. SCOPE

- 3.1 All Directors, Officers, employees, and job applicants, of Univar Solutions are subject to this Policy.

### 4. RESPONSIBILITIES

- 4.1 The Human Resources Department is responsible for enforcing this Policy.
- 4.2 The Human Resources Department, together with the Legal team, are responsible for reviewing this Policy to ensure compliance with laws, rules, and regulations.

### 5. CONTACT INFORMATION

- 5.1 All requests for equal employment opportunity information, including those from government agencies, should be directed the Human Resources Department.
- 5.2 Any questions regarding this Policy can be raised with a member of the Human Resources Department.

### 6. STATEMENT OF SUPPORT

- 6.1 As President of the US Business, I support our company's affirmative action program. I have delegated responsibility for implementing our affirmative action program to VP of Human Resources.

### 7. HISTORY OF REVISIONS

Revision Date	Section Number	Description/Modification
January 2020	All	General revision to the content of the Policy and updating to the new policy format. Provided with new policy number. (historic version are 0225)
June 1, 2015		
January 1, 2003		
July 1, 1998		New (Policy 0225)



**CERTIFICATE OF ANALYSIS**



Univar Solutions  
 4465 E. Florence Ave.  
 Fresno, CA 93725  
 PH. 559-488-4700  
 FAX 866-486-1624  
 www.univarsolutions.com

PACKAGE DATE: 08/27/2021  
 MATERIAL NAME: CITRIC ACID 50%  
 MATERIAL GRADE: FOOD/NSF/KOSHER  
 UNIVAR SOLUTIONS MATERIAL#: 16148403  
 UNIVAR SOLUTIONS PO# 6104577  
 UNIVAR SOLUTIONS BATCH# 0836L00361  
 CONTROL#: OU13395

<u>TEST</u>	<u>RESULTS</u>	<u>SPECIFICATIONS</u>
VISUAL	PASS	CLEAR/CLEAN FREE OF SUSPENDED PARTICLES
COLOR	PASS	COLORLESS
% BY ASSAY	50.08%	49%-51%
SPECIFIC GRAVITY AT 20C	1.241	1.220-1.250
IDENTIFIED AS:	CITRIC ACID 50%	
ODOR	ODORLESS	ODORLESS

Univar Solutions



Certified to  
 NSF/ANSI 60

Max. Use in Potable Water 100mg/L

  
 \_\_\_\_\_ (Signature)  
 Maria Espinoza  
 Lab Technician

  
 \_\_\_\_\_ (Signature)  
 Second Approval

**NOTE:** Source Material; Mfg Raw Material CITRIC ACID NON-GMO.BATCH# 0836L00359 (39,802lbs). Univar uses dedicated equipment in the process area. Univar packages this product to meet (FCC, kosher,) specifications only.

Please consult the SDS for further information.  
 Univar Solutions represents only that the Product shall meet the specifications herein. All transactions involving this Product are subject to Univar Solutions' standard Terms and Conditions, available at [www.univarsolutions.com](http://www.univarsolutions.com) or upon request. Univar Solutions makes no additional representations or warranties, express or implied, as to the Product.  
 QA 6.20 x 1; 03/05/2019 Page 1

**Safety Data Sheet**  
**CITRIC ACID 50% (Food Grade)**

Version 1.7

Revision Date: 10/13/2022

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION****Product name** : CITRIC ACID 50% (Food Grade)**Recommended use of the chemical and restrictions on use****Recommended use** : Food/Drug  
Kosher**Manufacturer or supplier's details****Company** : Univar Solutions USA, Inc.  
**Address** : 3075 Highland Pkwy Suite 200  
Downers Grove, IL 60515  
United States of America (USA)**Emergency telephone number:**

Transport North America: CHEMTREC (1-800-424-9300)

CHEMTREC INTERNATIONAL Tel # 703-527-3887

**Additional Information:** : Responsible Party: Product Compliance Department  
E-mail: SDSNA@univarsolutions.com  
SDS Requests: 1-855-429-2661  
Website: www.univarsolutions.com**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Skin corrosion : Category 1

Serious eye damage : Category 1

Specific target organ toxicity  
- single exposure : Category 3 (Respiratory system)**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.  
H335 May cause respiratory irritation.**Precautionary statements** : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/  
face protection.  
**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT  
induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately  
all contaminated clothing. Rinse skin with water/ shower.

## Safety Data Sheet

### CITRIC ACID 50% (Food Grade)

Version 1.7

Revision Date: 10/13/2022

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P363 Wash contaminated clothing before reuse.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Hazardous components**

CAS-No.	Chemical name	Weight percent
77-92-9	Citric acid	50 - 70

Any Concentration shown as a range is due to batch variation.

### SECTION 4. FIRST AID MEASURES

- General advice** : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled** : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact** : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact** : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.  
Take victim immediately to hospital.
- If swallowed** : Clean mouth with water and drink afterwards plenty of water.  
Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Do not induce vomiting without medical advice.

**Safety Data Sheet****CITRIC ACID 50% (Food Grade)**

Version 1.7

Revision Date: 10/13/2022

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
Foam  
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon oxides
- Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.  
Use personal protective equipment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Neutralize with chalk, alkali solution or ammonia.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Do not breathe vapours/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : Do not store near acids.

## Safety Data Sheet

### CITRIC ACID 50% (Food Grade)

Version 1.7

Revision Date: 10/13/2022

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

##### Personal protective equipment

Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Hand protection		
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	Clear, colorless, light yellow
Odour	:	mild, odorless
Odour Threshold	:	No data available
pH	:	1 - 3 @ 20 - 25 °C (68 - 77 °F)
Freezing Point (Freezing Point)	:	-15 - -10 °C (5 - 14 °F)
Boiling Point (Boiling point/boiling range)	:	100 - 105 °C (212 - 221 °F)
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available

## Safety Data Sheet

### CITRIC ACID 50% (Food Grade)

Version 1.7

Revision Date: 10/13/2022

Vapour pressure	: 6.9 mmHg @ 20 °C (68 °F)
Relative vapour density	: 0.2 @ 20 - 25 °C (68 - 77 °F) (Air = 1.0)
Relative density	: 1.24 - 1.27 @ 25 °C (77 °F) Reference substance: (water = 1)
Density	: No data available
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: 10 - 12 mPa.s

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Gives off hydrogen by reaction with metals.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	: Metals Oxidizing agents Reducing agents Bases nitrates
Hazardous decomposition products	: Carbon oxides

#### SECTION 11. TOXICOLOGICAL INFORMATION

##### Serious eye damage/eye irritation

##### Components:

77-92-9:

Species: Rabbit

Result: Irritating to eyes.

##### Carcinogenicity

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Safety Data Sheet****CITRIC ACID 50% (Food Grade)**

Version 1.7

Revision Date: 10/13/2022

<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
<b>NTP</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>ACGIH</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**STOT - single exposure****Components:****77-92-9:**

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

**Further information****Product:**

Remarks: No data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects****Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

**Safety Data Sheet**  
**CITRIC ACID 50% (Food Grade)**

Version 1.7

Revision Date: 10/13/2022

mation

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

- Waste from residues** : Dispose of in accordance with all applicable local, state and federal regulations.  
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922
- Contaminated packaging** : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION****DOT (Department of Transportation):** Not regulated as a dangerous good**IATA (International Air Transport Association):** Not regulated as a dangerous good**IMDG-Code:** Not regulated as a dangerous good**SECTION 15. REGULATORY INFORMATION****WHMIS Classification** : D2B: Toxic Material Causing Other Toxic Effects**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute Health Hazard**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).



## Safety Data Sheet

### CITRIC ACID 50% (Food Grade)

Version 1.7

Revision Date: 10/13/2022

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

#### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

#### US State Regulations

##### Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

##### Pennsylvania Right To Know

77-92-9	Citric acid	50 - 70 %
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##### New Jersey Right To Know

77-92-9	Citric acid	50 - 70 %
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##### California Prop 65

: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### The components of this product are reported in the following inventories:

- TSCA : On TSCA Inventory
- DSL : All components of this product are on the Canadian DSL
- AICS : On the inventory, or in compliance with the inventory
- NZIoC : On the inventory, or in compliance with the inventory
- ENCS : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PHIL : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

# Safety Data Sheet

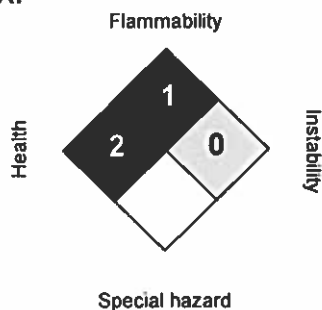
## CITRIC ACID 50% (Food Grade)

Version 1.7

Revision Date: 10/13/2022

### SECTION 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) [SDSNA@univarsolutions.com](mailto:SDSNA@univarsolutions.com).

Revision Date : 10/13/2022

#### Material number:

16170897, 16170903, 16180505, 16148815, 16164175, 16164333, 16148431, 16147594, 16151189, 16165323, 16138741, 16143523, 16160543, 16160625, 16160636, 16160648, 16160674, 16147501, 16158867, 16148636, 16149772, 16147851, 16144358, 16148047, 16151623, 16150296, 16148403, 16145930, 16149537, 16148043, 16141937, 16141628, 16141538, 16141836

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration

## Safety Data Sheet

### CITRIC ACID 50% (Food Grade)

Version 1.7

Revision Date: 10/13/2022

EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

CERTIFICATE OF ANALYSIS



DOM: 7/27/2021

EXP: 7/27/2022

Univar Solutions  
 2600 S Garfield Ave  
 Commerce, CA 90040  
 T. 323-837-7043  
 www.univarsolutions.com

DATE: 7/27/2021

PRODUCT: Ammonium Sulfate 40%

UNIVAR SOLUTIONS MATERIAL#: 16156156

UNIVAR SOLUTIONS BATCH#: 0834L03002

<u>TEST</u>	<u>RESULTS</u>	<u>SPECIFICATIONS</u>
SPECIFIC GRAVITY @ 68°F	1.217	1.210 – 1.240
ASSAY	39.1%	39.0% – 41.0%
pH	4.611	2.5 – 8.0
APPEARANCE	PASS	Pass
TOTAL UNDISSOLVED SOLIDS, %	PASS	<1.0%

Univar Solutions

Ariel Chang (Signature)  
Ariel Chang (Print Name)  
Chemist (Job Title)



Certified to  
 NSF/ANSI 60

Maximum use for Potable Water: 60mg/L

**Note:**

Please consult the SDS for further information. Univar Solutions represents only that the Product shall meet the specifications herein. All transactions involving this Product are subject to Univar Solutions' standard Terms and Conditions, available at [www.univarsolutions.com](http://www.univarsolutions.com) or upon request. Univar Solutions makes no additional representations or warranties, express or implied, as to the Product.

**Safety Data Sheet****AMMONIUM SULFATE SOLUTION**

Version 1.1

Revision Date: 07/13/2020

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION****Product name** : AMMONIUM SULFATE SOLUTION**Recommended use of the chemical and restrictions on use****Recommended use** : Reserved for industrial and professional use.**Manufacturer or supplier's details****Company** : Univar Solutions USA, Inc.  
**Address** : 3075 Highland Pkwy Suite 200  
Downers Grove, IL 60515  
United States of America (USA)**Emergency telephone number:**Transport North America: CHEMTREC (1-800-424-9300)  
CHEMTREC INTERNATIONAL Tel # 703-527-3887**Additional Information:** : Responsible Party: Product Compliance Department  
E-mail: SDSNA@univarsolutions.com  
SDS Requests: 1-855-429-2661  
Website: www.univarsolutions.com**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Not a hazardous substance or mixture.

**GHS label elements**

Not a hazardous substance or mixture.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Substance / Mixture** : Mixture**Hazardous components**

No hazardous ingredients

**SECTION 4. FIRST AID MEASURES****General advice** : Do not leave the victim unattended.  
**If inhaled** : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.  
Move to fresh air.  
**In case of skin contact** : Wash off with soap and water.  
If skin irritation persists, call a physician.  
Remove contaminated clothing and shoes.  
**In case of eye contact** : Remove contact lenses.  
Protect unharmed eye.  
If eye irritation persists, consult a specialist.  
**If swallowed** : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.

**Safety Data Sheet****AMMONIUM SULFATE SOLUTION**

Version 1.1

Revision Date: 07/13/2020

Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Do not induce vomiting without medical advice.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
Dry chemical  
Alcohol-resistant foam
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : toxic fumes  
ammonia  
Sulphuric acid  
Smoke
- Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : No materials to be especially mentioned.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and

## Safety Data Sheet

### AMMONIUM SULFATE SOLUTION

Version 1.1

Revision Date: 07/13/2020

use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Eye protection : Safety glasses  
 Skin and body protection : Protective suit  
 Hygiene measures : General industrial hygiene practice.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid  
 Colour : Clear, Colorless, light yellow  
 Odour : odorless  
 Odour Threshold : No data available  
 pH : 7  
 Freezing Point (Melting point/freezing point) : -14 °C (7 °F)  
 Boiling Point (Boiling point/boiling range) : > 100 °C (212 °F)  
 Flash point : No data available  
 Evaporation rate : 1  
 Flammability (solid, gas) : No data available  
 Upper explosion limit : No data available  
 Lower explosion limit : No data available  
 Vapour pressure : No data available  
 Relative vapour density : No data available  
 Relative density : 1.224 - 1.235 @ 60 °C (140 °F)  
 Density : 10.24 lb/gal  
 Solubility(ies) :  
 Water solubility : 764 g/l soluble @ 25 °C (77 °F)  
 Solubility in other solvents : No data available  
 Partition coefficient: n-octanol/water : log Pow: -5.1  
 Auto-ignition temperature : No data available  
 Thermal decomposition : No data available

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.  
 Chemical stability : Stable under normal conditions.  
 Possibility of hazardous reactions : No hazards to be specially mentioned.

**Safety Data Sheet****AMMONIUM SULFATE SOLUTION**

Version 1.1

Revision Date: 07/13/2020

Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	: chlorates Chlorine Copper Copper alloys nitrates nitrites Nitrogen oxides (NOx) Organic materials Oxidizing agents Potassium Powdered metals sodium hypochlorite Strong acids strong alkalis strong reducing agents Zinc

---

**SECTION 11. TOXICOLOGICAL INFORMATION****Carcinogenicity****IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Further information****Product:**

Remarks: No data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available



**Safety Data Sheet**  
**AMMONIUM SULFATE SOLUTION**

Version 1.1

Revision Date: 07/13/2020

**Mobility in soil**

No data available

**Other adverse effects**

**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.  
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-909-4897

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

---

**SECTION 14. TRANSPORT INFORMATION**

**DOT (Department of Transportation):** Not regulated as a dangerous good

**UNRTDG**

Not regulated as a dangerous good

**IATA (International Air Transport Association):** Not regulated as a dangerous good

**IMDG-Code:** Not regulated as a dangerous good

---

**SECTION 15. REGULATORY INFORMATION**

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

## Safety Data Sheet

# AMMONIUM SULFATE SOLUTION

Version 1.1

Revision Date: 07/13/2020

This material does not contain any components with a section 304 EHS RQ.

- SARA 311/312 Hazards** : No SARA Hazards
- SARA 302** : This material does not contain any components with a section 302 EHS TPQ.
- SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

### Massachusetts Right To Know

7783-20-2 Ammonium sulfate

### Pennsylvania Right To Know

7732-18-5 Water  
7783-20-2 Ammonium sulfate

- California Prop 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### The components of this product are reported in the following inventories:

- TSCA** : On TSCA Inventory
- DSL** : All components of this product are on the Canadian DSL
- AICS** : On the inventory, or in compliance with the inventory
- NZIoC** : On the inventory, or in compliance with the inventory
- ENCS** : On the inventory, or in compliance with the inventory
- KECI** : On the inventory, or in compliance with the inventory
- PICCS** : On the inventory, or in compliance with the inventory
- IECSC** : On the inventory, or in compliance with the inventory

# Safety Data Sheet

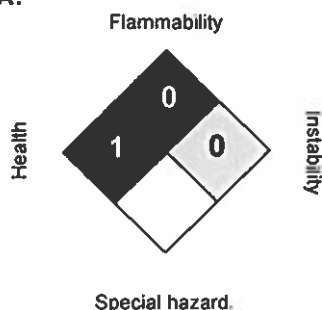
## AMMONIUM SULFATE SOLUTION

Version 1.1

Revision Date: 07/13/2020

### SECTION 16. OTHER INFORMATION

**NFPA:**



**HMIS III:**

HEALTH	1/
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) [SDSNA@univarsolutions.com](mailto:SDSNA@univarsolutions.com).

Revision Date : 07/13/2020

**Material number:**

16165564, 16165531, 16150548, 16137497, 16153190, 16160632, 16155264, 16156156, 16159783, 16156164, 16156126, 16135627

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit

## Safety Data Sheet

### AMMONIUM SULFATE SOLUTION

Version 1.1

Revision Date: 07/13/2020

EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

CERTIFICATE OF ANALYSIS



Univar Solutions  
525 Seaport Blvd.  
Redwood City, CA 94063  
PH. 650-363-1661  
FAX 650-261-2020  
www.univarsolutions.com

City of Benicia WWTP  
Waste Water Treatment  
614 E. 5<sup>th</sup> Street  
Benicia CA, 94510  
PO#: 22100017

DATE: 06/04/2020 MFG DATE: 06/04/2020

PRODUCT: Caustic Soda 25%

PRODUCT GRADE: NSF Diaphragm

UNIVAR SOLUTIONS MATERIAL CODE: 16147884

UNIVAR SOLUTIONS BATCH NUMBER: 0840K00566

UNIVAR SOLUTIONS SALES ORDER NUMBER: 11372248

<u>TEST</u>	<u>RESULTS</u>	<u>SPECIFICATIONS</u>
Assay, NaOH	24.89%	24.0%-26.0%
Assay, Na <sub>2</sub> O	19.33%	18.60%-20.20%
Assay, Na <sub>2</sub> CO <sub>3</sub>	0.52%	1.0 % max
Specific Gravity @15.6°C	1.279	1.263-1.290
pH	12.63	12.0-14.0
Visual	Pass	Clear/Clean Free of suspended particles

Univar Solutions

Theodore Siguijor

Lab Technician



Certified to  
NSF/ANSI 60

**Note:**

Please consult the SDS for further information.

Univar Solutions represents only that the Product shall meet the specifications herein. All transactions involving this Product are subject to Univar Solutions' standard Terms and Conditions, available at [www.univarsolutions.com](http://www.univarsolutions.com) or upon request. Univar Solutions makes no additional representations or warranties, express or implied, as to the Product.

QA 6.20 x 2; 03/05/2019

**Safety Data Sheet**  
**CAUSTIC SODA 25%**

Version 1.5

Revision Date: 12/30/2021

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION****Product name** : CAUSTIC SODA 25%**Recommended use of the chemical and restrictions on use****Recommended use** : Industrial chemical**Manufacturer or supplier's details****Company** : Univar Solutions USA, Inc.  
**Address** : 3075 Highland Pkwy Suite 200  
Downers Grove, IL 60515  
United States of America (USA)**Emergency telephone number:**Transport North America: CHEMTREC (1-800-424-9300)  
CHEMTREC INTERNATIONAL Tel # 703-527-3887**Additional Information:** : Responsible Party: Product Compliance Department  
E-mail: SDSNA@univarsolutions.com  
SDS Requests: 1-855-429-2661  
Website: www.univarsolutions.com**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification****Corrosive to metals** : Category 1**Skin corrosion** : Category 1A**Serious eye damage** : Category 1**GHS label elements****Hazard pictograms** :**Signal word** : Danger**Hazard statements** : H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.**Precautionary statements** : **Prevention:**  
P234 Keep only in original container.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/  
face protection.  
**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT  
induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately  
all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air  
and keep comfortable for breathing. Immediately call a POISON  
CENTER/doctor.

**Safety Data Sheet**  
**CAUSTIC SODA 25%**

Version 1.5

Revision Date: 12/30/2021

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

**Storage:**

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

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

Substance / Mixture : Mixture

**Hazardous components**

CAS-No.	Chemical name	Weight percent
1310-73-2	Sodium hydroxide	20 - 30

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

Synonyms : Sodium Hydroxide,

**SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.  
 Consult a physician.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.

If symptoms persist, call a physician.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

If on skin, rinse well with water.

If on clothes, remove clothes.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

Remove contact lenses.

Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

Take victim immediately to hospital.

**Safety Data Sheet**  
**CAUSTIC SODA 25%**

Version 1.5

Revision Date: 12/30/2021

- If swallowed : Keep respiratory tract clear.  
Do not induce vomiting without medical advice.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Neutralise with acid.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Do not breathe vapours/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.



**Safety Data Sheet**  
**CAUSTIC SODA 25%**

Version 1.5

Revision Date: 12/30/2021

Conditions for safe storage : To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.  
 : Keep container tightly closed in a dry and well-ventilated place.  
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
 Observe label precautions.  
 Electrical installations / working materials must comply with the technological safety standards.

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

**Components with workplace control parameters**

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
1310-73-2	Sodium hydroxide	C	2 mg/m3	ACGIH
		C	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z-1
		C	2 mg/m3	OSHA P0
		C	2 mg/m3	CAL PEL

**Personal protective equipment**

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

**Hand protection**

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
 Tightly fitting safety goggles  
 Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing  
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.  
 When using do not smoke.  
 Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

## Safety Data Sheet

### CAUSTIC SODA 25%

Version 1.5

Revision Date: 12/30/2021

Appearance	: liquid
Colour	: colorless
Odour	: odorless
Odour Threshold	: No data available
pH	: 14 @ 20 - 25 °C (68 - 77 °F)
Freezing Point	: No data available
Boiling Point	: No data available
Flash point	: > 93 °C (> 199 °F) No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: 1.27 - 1.28 @ 20 - 25 °C (68 - 77 °F) Reference substance: (water = 1)
Density	: No data available
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed.
Conditions to avoid	: No data available
Incompatible materials	: Acids Halogenated compounds Metals organic nitro compounds Zinc

#### SECTION 11. TOXICOLOGICAL INFORMATION

##### Acute toxicity

##### Components:

1310-73-2:

**Safety Data Sheet**  
**CAUSTIC SODA 25%**

Version 1.5

Revision Date: 12/30/2021

Acute oral toxicity : LD50 (Rabbit): 325 mg/kg

**Skin corrosion/irritation****Components:****1310-73-2:**

Species: Rabbit

Result: Causes severe burns.

**Serious eye damage/eye irritation****Components:****1310-73-2:**

Species: Rabbit

Result: Risk of serious damage to eyes.

**Carcinogenicity****IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Further information****Product:**

Remarks: No data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Safety Data Sheet**  
**CAUSTIC SODA 25%**

Version 1.5

Revision Date: 12/30/2021

**Other adverse effects**

**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
 Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : Do not dispose of waste into sewer.  
 Do not contaminate ponds, waterways or ditches with chemical or used container.  
 Send to a licensed waste management company.  
 Dispose of in accordance with all applicable local, state and federal regulations.  
 For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.  
 Dispose of as unused product.  
 Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION**

**DOT (Department of Transportation):**  
 UN1824, Sodium hydroxide solution, 8, II

**IATA (International Air Transport Association):**  
 UN1824, Sodium hydroxide solution, 8, II

**IMDG (International Maritime Dangerous Goods):**  
 UN1824, SODIUM HYDROXIDE SOLUTION, 8, II, Flash Point:> 93 °C(> 199 °F)

**SECTION 15. REGULATORY INFORMATION**

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium hydroxide	1310-73-2	1000	3921

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

## Safety Data Sheet

### CAUSTIC SODA 25%

Version 1.5

Revision Date: 12/30/2021

This material does not contain any components with a section 304 EHS RQ.

- SARA 311/312 Hazards** : Corrosive to metals  
Skin corrosion or irritation  
Serious eye damage or eye irritation
- SARA 302** : This material does not contain any components with a section 302 EHS TPQ.
- SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC's (40 CFR 60.489).

#### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

1310-73-2 Sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

#### Massachusetts Right To Know

1310-73-2 Sodium hydroxide

#### Pennsylvania Right To Know

7732-18-5 Water  
1310-73-2 Sodium hydroxide

- California Prop 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### The components of this product are reported in the following inventories:

- TSCA : On the inventory, or in compliance with the inventory
- DSL : On the inventory, or in compliance with the inventory
- AICS : On the inventory, or in compliance with the inventory
- NZIoC : On the inventory, or in compliance with the inventory
- ENCS : Not in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory

**Safety Data Sheet**  
**CAUSTIC SODA 25%**

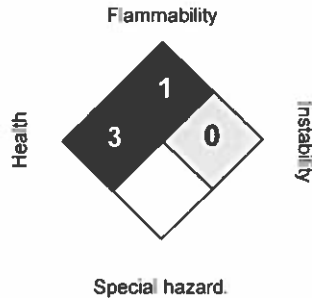
Version 1.5

Revision Date: 12/30/2021

IECSC : On the inventory, or in compliance with the inventory

**SECTION 16. OTHER INFORMATION**

**NFPA:**



**HMIS III:**

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 12/30/2021

**Material number:**

16163721, 16162553, 16147855, 16151729, 16147016, 16002081, 16002153, 16163814, 16181444, 16185708, 16185366, 16178437, 16176600, 16176259, 16175654, 16175444, 16175415, 16174721, 16176744, 16170086, 16169860, 16169683, 16168188, 16168798, 16146335, 16146334, 16143884, 16145401, 16145323, 16145278, 16145243, 16145242, 16125921, 16116103, 16113730, 755848, 650799, 546389, 70561, 53072, 574261, 53570, 16150734, 16149350, 16149457, 16144981, 16145777, 16147137, 16163653, 102698, 16160832, 16137556, 16137474, 16137324, 16152197, 16158393, 16152426, 16144481, 16147885, 16159715, 16143521, 16160487, 16160771, 16160572, 16160486, 16147888, 16147884, 16147854, 16147799, 16148872, 16144724, 16144461, 16148802, 16152705, 16145049, 16136108, 16135793, 16135298, 16143511, 16143409, 16143472, 16143461, 16143389, 16142429, 16140693, 16140424, 16142307, 16142009, 16141867, 16140353, 16141665, 16140968, 16142282, 16140375, 16140289, 16140979, 16141187, 16145400, 16145399, 16140956

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level

## Safety Data Sheet

### CAUSTIC SODA 25%

Version 1.5

Revision Date: 12/30/2021

DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

CERTIFICATE OF ANALYSIS



Univar Solutions  
525 Seaport Blvd.  
Redwood City, CA 94063  
PH. 650-363-1661  
FAX 650-261-2020  
www.univarsolutions.com

DATE: 03/28/2023

PRODUCT: Sodium Bisulfite 25%

PRODUCT GRADE: NSF

UNIVAR SOLUTIONS MATERIAL NUMBER: 16142224

UNIVAR SOLUTIONS BATCH NUMBER: 0840N00112

<u>TEST</u>	<u>RESULTS</u>	<u>SPECIFICATIONS</u>
Assay, NaHSO <sub>3</sub>	25.50%	24.0%-26.0%
Specific Gravity @ 20°C	1.210	1.150-1.250
pH	5.498	3.5-5.5
Visual	Pass	Clear/Free of Particles

Univar Solutions

  
Omar Nayfeh

Lab Technician



**Note:**

Please consult the SDS for further information.

Univar Solutions represents only that the Product shall meet the specifications herein. All transactions involving this Product are subject to Univar Solutions' standard Terms and Conditions, available at [www.univarsolutions.com](http://www.univarsolutions.com) or upon request. Univar Solutions makes no additional representations or warranties, express or implied, as to the Product.



## Safety Data Sheet

### SODIUM BISULFITE 5-27%

Version 1.3

Revision Date: 04/07/2023

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** : SODIUM BISULFITE 5-27%

**Recommended use of the chemical and restrictions on use**

**Recommended use** : Industrial chemical

**Manufacturer or supplier's details**

**Company** : Univar Solutions USA, Inc.  
**Address** : 3075 Highland Pkwy Suite 200  
 Downers Grove, IL 60515  
 United States of America (USA)

**Emergency telephone number:**

Transport North America: CHEMTREC (1-800-424-9300)  
 CHEMTREC INTERNATIONAL Tel # 703-527-3887

**Additional Information:** : Responsible Party: Product Compliance Department  
 E-mail: SDSNA@univarsolutions.com  
 SDS Requests: 1-855-429-2661  
 Website: www.univarsolutions.com

#### SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification**

**Skin corrosion** : Category 1C

**Serious eye damage** : Category 1

**Respiratory sensitisation** : Category 1

**Skin sensitisation** : Category 1

**GHS label elements**

**Hazard pictograms** : 

**Signal word** : Danger

**Hazard statements** : H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Precautionary statements** : **Prevention:**  
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
 P264 Wash skin thoroughly after handling.  
 P272 Contaminated work clothing must not be allowed out of the workplace.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P285 In case of inadequate ventilation wear respiratory protection.

## Safety Data Sheet

### SODIUM BISULFITE 5-27%

Version 1.3

Revision Date: 04/07/2023

#### Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.

P363 Wash contaminated clothing before reuse.

#### Storage:

P405 Store locked up.

#### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

#### Other hazards

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Hazardous components

CAS-No.	Chemical name	Weight percent
7631-90-5	Sodium bisulfite	20 - 30

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

### SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Call a physician or poison control centre immediately.  
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

## Safety Data Sheet

### SODIUM BISULFITE 5-27%

Version 1.3

Revision Date: 04/07/2023

If swallowed	<p>In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.            Continue rinsing eyes during transport to hospital.            Remove contact lenses.            Protect unharmed eye.            Keep eye wide open while rinsing.            If eye irritation persists, consult a specialist.</p> <p>: Keep respiratory tract clear.            Do not induce vomiting without medical advice.            Do not give milk or alcoholic beverages.            Never give anything by mouth to an unconscious person.            If symptoms persist, call a physician.            Take victim immediately to hospital.</p>
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#### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Dry chemical Carbon dioxide (CO <sub>2</sub> ) Alcohol-resistant foam
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon oxides Nitrogen oxides (NO <sub>x</sub> ) sulfur oxides
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Ensure adequate ventilation.
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

#### SECTION 7. HANDLING AND STORAGE

## Safety Data Sheet

### SODIUM BISULFITE 5-27%

Version 1.3

Revision Date: 04/07/2023

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Avoid formation of aerosol.  
Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
To avoid spills during handling keep bottle on a metal tray.  
Dispose of rinse water in accordance with local and national regulations.  
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7631-90-5	Sodium bisulfite	TWA	5 mg/m <sup>3</sup>	ACGIH
		TWA	5 mg/m <sup>3</sup>	NIOSH REL
		PEL	5 mg/m <sup>3</sup>	CAL PEL

##### Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

##### Hand protection

- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

## Safety Data Sheet

### SODIUM BISULFITE 5-27%

Version 1.3

Revision Date: 04/07/2023

Skin and body protection	:	Wear face-shield and protective suit for abnormal processing problems.
Hygiene measures	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	yellow
Odour	:	pungent
Odour Threshold	:	No data available
pH	:	No data available
Freezing Point	:	No data available
Boiling Point	:	No data available
Flash point	:	does not flash
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	8.7500 lb/gal
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Thermal decomposition	:	No data available

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	Contact with incompatible substances can cause decomposition at or below SADT.
Incompatible materials	:	Barium Lead magnesium mercury or mercury alloys Potassium

**Safety Data Sheet**  
**SODIUM BISULFITE 5-27%**

Version 1.3

Revision Date: 04/07/2023

Silver  
Strong acids  
Strong oxidizing agents  
Aluminium

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Components:****7631-90-5:**

Acute oral toxicity : LD50 (Rat): 1,700 mg/kg  
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

**Skin corrosion/irritation****Components:****7631-90-5:**

Species: Rabbit

Result: No skin irritation

**Serious eye damage/eye irritation****Components:****7631-90-5:**

Species: Rabbit

Result: No eye irritation

**Germ cell mutagenicity****Components:****7631-90-5:**

Genotoxicity in vitro : Test Type: Ames test  
Species: Salmonella typhimurium  
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test  
Species: Mouse  
Result: negative

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

**Safety Data Sheet**  
**SODIUM BISULFITE 5-27%**

Version 1.3

Revision Date: 04/07/2023

**Carcinogenicity****Components:****7631-90-5:**

Carcinogenicity - Assessment

: Carcinogenicity classification not possible from current data.

**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity****Components:****7631-90-5:**

Teratogenicity - Assessment

: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

**Further information****Product:**

Remarks: No data available

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****7631-90-5:**

Toxicity to fish

: LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 89 mg/l  
Exposure time: 48 h

Toxicity to algae

: EC50 (Desmodesmus subspicatus (green algae)): 43.8 mg/l  
Exposure time: 72 h

Acute aquatic toxicity- Assessment

: Harmful to aquatic life.

Chronic aquatic toxicity- Assessment

: Harmful to aquatic life with long lasting effects.

**Safety Data Sheet**  
**SODIUM BISULFITE 5-27%**

Version 1.3

Revision Date: 04/07/2023

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects****Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life with long lasting effects.

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.  
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

---

**SECTION 14. TRANSPORT INFORMATION****DOT (Department of Transportation):**

UN2693, Bisulfites, aqueous solutions, n.o.s., 8, III

**IATA (International Air Transport Association):**

UN2693, BISULPHITES, AQUEOUS SOLUTION, N.O.S., 8, III

**IMDG (International Maritime Dangerous Goods):**

UN2693, BISULPHITES, AQUEOUS SOLUTION, N.O.S., 8, III



**Safety Data Sheet**  
**SODIUM BISULFITE 5-27%**

Version 1.3

Revision Date: 04/07/2023

**SECTION 15. REGULATORY INFORMATION**

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium bisulfite	7631-90-5	5000	17272

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Skin corrosion or irritation  
 Serious eye damage or eye irritation  
 Respiratory or skin sensitisation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7631-90-5 Sodium bisulfite

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7631-90-5 Sodium bisulfite

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**Massachusetts Right To Know**

7631-90-5 Sodium bisulfite  
 7757-82-6 Sodium sulphate

**Pennsylvania Right To Know**

7732-18-5 Water  
 7631-90-5 Sodium bisulfite  
 7757-82-6 Sodium sulphate

**California Prop 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

**Safety Data Sheet**  
**SODIUM BISULFITE 5-27%**

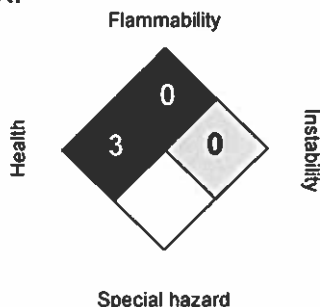
Version 1.3

Revision Date: 04/07/2023

- TSCA : On TSCA Inventory
- DSL : All components of this product are on the Canadian DSL
- AICS : On the inventory, or in compliance with the inventory
- ENCS : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

**SECTION 16. OTHER INFORMATION**

**NFPA:**



**HMIS III:**

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 04/07/2023

**Material number:**

16194538, 16194537, 16160612, 16160585, 16152330, 16154999, 16151052, 16157084, 16141711, 16141680, 16142224, 16141001, 16142575

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical	LOAEL	Lowest Observed Adverse Effect

## Safety Data Sheet

### SODIUM BISULFITE 5-27%

Version 1.3

Revision Date: 04/07/2023

	Substances		Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

CERTIFICATE OF ANALYSIS



Univar Solutions  
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PH 562-944-7244  
FAX 562-903-0058  
[www.univarsolutions.com](http://www.univarsolutions.com)

DATE: 9/20/2021

PRODUCT: Sodium Hypochlorite, 12.5%

PRODUCT GRADE: NSF

UNIVAR PRODUCT CODE: 16140525

UNIVAR LOT/PJO NUMBER: 0844L01895

TEST			RESULTS	SPECIFICATIONS
Assay NaHClO	wt %		13.45	12.5 % minimum
Excess Alkalinity	wt %		0.50	0.1 to 0.6
Specific Gravity @ 60°F			1.207	>1.200
Available Chlorine			12.50	-
Chlorine	Cl	wt/gal	1.26	-

Univar Solutions

\_\_\_\_\_  
*Julie Hordyk* (Signature)

\_\_\_\_\_  
Julie Hordyk (Print Name)

\_\_\_\_\_  
Dispatcher (Job Title)



Notes:

Consult the SDS for additional information.

All information is based on data obtained from the manufacturer or other recognized technical sources. The information is believed to be accurate. Univar Solutions makes no representation or warranty, express, or implied, concerning the accuracy or sufficiency of the information. Univar Solutions is not liable for any damages resulting from the use or non-use of the information. All transactions involving this Product are subject to Univar Solutions standard Terms and Conditions, available at [www.univarsolutions.com](http://www.univarsolutions.com) or upon request. Univar Solutions makes no additional representations or warranties, express or implied, as to the Product.

**Safety Data Sheet**  
**LIQUICHLOR® 12.5% SOLUTION**

Version 1.1

Revision Date: 02/01/2023

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION****Product name** : LIQUICHLOR® 12.5% SOLUTION**Recommended use of the chemical and restrictions on use****Recommended use** : refer to EPA registered label for specific uses**Manufacturer or supplier's details****Company** : Univar Solutions USA, Inc.  
**Address** : 3075 Highland Pkwy Suite 200  
Downers Grove, IL 60515  
United States of America (USA)**Emergency telephone number:**

Transport North America: CHEMTREC (1-800-424-9300)

CHEMTREC INTERNATIONAL Tel # 703-527-3887

**Additional Information:** : Responsible Party: Product Compliance Department  
E-mail: SDSNA@univarsolutions.com  
SDS Requests: 1-855-429-2661  
Website: www.univarsolutions.com**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Corrosive to metals : Category 1

Skin corrosion : Category 1

Serious eye damage : Category 1

**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.**Precautionary statements** : **Prevention:**  
P234 Keep only in original container.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/  
face protection.  
**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT  
induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately  
all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air  
and keep comfortable for breathing. Immediately call a POISON  
CENTER/ doctor.

## Safety Data Sheet

### LIQUICHLOR® 12.5% SOLUTION

Version 1.1

Revision Date: 02/01/2023

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

**Storage:**

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Hazardous components**

CAS-No.	Chemical name	Weight percent
7681-52-9	Sodium hypochlorite	12.5
1310-73-2	Sodium hydroxide	0 - 5

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

Synonyms : Bleach,

### SECTION 4. FIRST AID MEASURES

- General advice : Show this safety data sheet to the doctor in attendance.  
Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Take victim immediately to hospital.  
Move to fresh air.  
If breathing has stopped, apply artificial respiration.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Remove contaminated clothing. If irritation develops, get medical attention.  
Burns must be treated by a physician.
- In case of eye contact : In case of eye contact  
Immediately flush eye(s) with plenty of water.  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

## Safety Data Sheet

### LIQUICHLOR® 12.5% SOLUTION

Version 1.1

Revision Date: 02/01/2023

If swallowed	<p>If easy to do, remove contact lens, if worn.            If eye irritation persists, consult a specialist.            Take victim immediately to hospital.            : Take victim immediately to hospital.            Do NOT induce vomiting.            Rinse mouth with water.            If victim is fully conscious, give a cupful of water.            If a person vomits when lying on his back, place him in the recovery position.</p>
--------------	---

#### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	<p>: Carbon dioxide (CO<sub>2</sub>)            Foam            Dry powder</p>
Unsuitable extinguishing media	<p>: High volume water jet</p>
Specific hazards during fire-fighting	<p>: Do not allow run-off from fire fighting to enter drains or water courses.</p>
Hazardous combustion products	<p>: No hazardous combustion products are known</p>
Further information	<p>: Collect contaminated fire extinguishing water separately. This must not be discharged into drains.            Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.</p>
Special protective equipment for firefighters	<p>: Wear self-contained breathing apparatus for firefighting if necessary.</p>

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	<p>: Use personal protective equipment.</p>
Environmental precautions	<p>: Prevent product from entering drains.            Prevent further leakage or spillage if safe to do so.            If the product contaminates rivers and lakes or drains inform respective authorities.</p>
Methods and materials for containment and cleaning up	<p>: Neutralise with acid.            Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).            Keep in suitable, closed containers for disposal.</p>

#### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	<p>: Normal measures for preventive fire protection.</p>
Advice on safe handling	<p>: Do not breathe vapours/dust.</p>

## Safety Data Sheet

### LIQUICHLOR® 12.5% SOLUTION

Version 1.1

Revision Date: 02/01/2023

- Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
To avoid spills during handling keep bottle on a metal tray.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7681-52-9	Sodium hypochlorite	STEL	2 mg/m <sup>3</sup>	US WEEL
1310-73-2	Sodium hydroxide	C	2 mg/m <sup>3</sup>	ACGIH
		C	2 mg/m <sup>3</sup>	NIOSH REL
		TWA	2 mg/m <sup>3</sup>	OSHA Z-1
		C	2 mg/m <sup>3</sup>	OSHA P0
		C	2 mg/m <sup>3</sup>	CAL PEL

##### Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

##### Hand protection

- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.



## Safety Data Sheet

### LIQUICHLOR® 12.5% SOLUTION

Version 1.1

Revision Date: 02/01/2023

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: clear yellow
Odour	: Chlorine
Odour Threshold	: No data available
pH	: 11.5 - 13
Freezing Point (Melting point/freezing point)	: -20 - -15 °C (-4 - 5 °F)
Boiling Point ( )	: 230 °F (230 °F) Decomposition: Decomposition temperature
Flash point	: Not Flammable
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: 12 - 17.5 mmHg @ 20 °C (68 °F)
Relative vapour density	: No data available
Relative density	: 1.17 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: 1.17 g/cm <sup>3</sup>
Solubility(ies)	
Water solubility	: completely soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable
Possibility of hazardous reactions	: No hazards to be specially mentioned.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	: Acids Combustible material Halogenated compounds Metals metal salts Organic materials

**Safety Data Sheet**  
**LIQUICHLOR® 12.5% SOLUTION**

Version 1.1

Revision Date: 02/01/2023

organic nitro compounds  
Zinc**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Components:****7681-52-9:**

Acute oral toxicity : LD50 (Rat, male): &gt; 2,000 mg/kg

**1310-73-2:**

Acute oral toxicity : LD50 (Rabbit): 325 mg/kg

**Skin corrosion/irritation****Components:****7681-52-9:**

Species: Rabbit

Result: Causes burns.

**1310-73-2:**

Species: Rabbit

Result: Causes severe burns.

**Serious eye damage/eye irritation****Components:****7681-52-9:**

Species: Rabbit

Result: Risk of serious damage to eyes.

**1310-73-2:**

Species: Rabbit

Result: Risk of serious damage to eyes.

**Carcinogenicity****IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Safety Data Sheet**  
**LIQUICHLOR® 12.5% SOLUTION**

Version 1.1

Revision Date: 02/01/2023

**STOT - single exposure****Components:****7681-52-9:**

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

**Further information****Product:**

Remarks: No data available

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****7681-52-9:**

- Toxicity to fish : LC50 (Salmo gairdneri (Rainbow Fish)): 0.06 mg/l  
Exposure time: 96 h  
Test Type: flow-through test
- LC50 (Pimephales promelas (fathead minnow)): 5.9 mg/l  
Exposure time: 96 h  
Test Type: static test
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.141 mg/l  
Exposure time: 48 h  
Test Type: flow-through test
- EC50 (Ceriodaphnia dubia): 0.035 mg/l  
Exposure time: 48 h  
Test Type: flow-through test
- Toxicity to algae : IC50: 0.023 mg/l  
Exposure time: 7 d  
Test Type: flow-through test
- M-Factor (Acute aquatic toxicity) : 10
- Acute aquatic toxicity- Assessment : Very toxic to aquatic life.
- Chronic aquatic toxicity- Assessment : Toxic to aquatic life with long lasting effects.

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

# Safety Data Sheet

## LIQUICHLOR® 12.5% SOLUTION

Version 1.1

Revision Date: 02/01/2023

### Mobility in soil

No data available

### Other adverse effects

#### Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life.  
Harmful to aquatic life with long lasting effects.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.  
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

## SECTION 14. TRANSPORT INFORMATION

### DOT (Department of Transportation):

UN1791, Hypochlorite solutions, 8, III, Marine Pollutant (SODIUM HYPOCHLORITE)

### IATA (International Air Transport Association):

UN1791, Hypochlorite solution, 8, III

### IMDG (International Maritime Dangerous Goods):

UN1791, HYPOCHLORITE SOLUTION, 8, III, Marine Pollutant (SODIUM HYPOCHLORITE)

## SECTION 15. REGULATORY INFORMATION

### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)

## Safety Data Sheet

### LIQUICHLOR® 12.5% SOLUTION

Version 1.1

Revision Date: 02/01/2023

Sodium hypochlorite	7681-52-9	100	800
Sodium hydroxide	1310-73-2	1000	20000

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Corrosive to metals  
 Skin corrosion or irritation  
 Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

#### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7681-52-9 Sodium hypochlorite  
 1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7681-52-9 Sodium hypochlorite  
 1310-73-2 Sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

#### Massachusetts Right To Know

7681-52-9 Sodium hypochlorite  
 1310-73-2 Sodium hydroxide

#### Pennsylvania Right To Know

7732-18-5 Water  
 7681-52-9 Sodium hypochlorite  
 1310-73-2 Sodium hydroxide

**California Prop 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

# Safety Data Sheet

## LIQUICHLOR® 12.5% SOLUTION

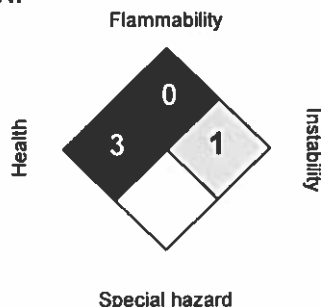
Version 1.1

Revision Date: 02/01/2023

NZIoC	:	Not in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory

### SECTION 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3/
FLAMMABILITY	0
PHYSICAL HAZARD	1

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) [SDSNA@univarsolutions.com](mailto:SDSNA@univarsolutions.com).

Revision Date : 02/01/2023

#### Material number:

16179440, 16173035, 16172686, 16173104, 16185315, 16172598, 16146040, 16151002, 16149524, 16158615, 16145640, 16148059, 16144666, 16147989, 16163791, 16180800, 16164756, 16164592, 16164731, 16164730, 16203820, 16203821, 16203184, 16194505, 16158853, 16151253, 16149870, 16148071, 16148060, 16147684, 16145965, 16145895, 16145890, 16145584, 16145144, 16145142, 16145140, 16145138, 16145137, 16145133, 16145130, 16145079, 16159810, 16150495, 16149123, 16147041, 16145471, 16144665, 16145772, 16148183, 16145046, 16143737, 16135287, 16163624, 16148721, 16155765, 16158840, 16145484, 16166710, 16148748, 16148260, 16166763, 16166591, 16145834, 16166014, 16159793, 16162934, 16165524, 16165444, 16165066, 16137823, 16137455, 16137753, 16147687, 16144215, 16150496, 16149504, 16145673, 16149243, 16136536, 16160181, 16160290, 16144046, 16145139, 16150462, 16149046, 16149516, 16148083, 16150461, 16135216, 16156005, 16151878, 16151501, 16150223, 16149931, 16148522,

## Safety Data Sheet

### LIQUICHLOR® 12.5% SOLUTION

Version 1.1

Revision Date: 02/01/2023

16148259, 16147092, 16145877, 16145876

<b>Key or legend to abbreviations and acronyms used in the safety data sheet</b>			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

Univar Material: 16140763  
 Univar Batch: 03123  
 By: Nicole Barker  
 Date: 03/28/2023

**CERTIFICATE OF ANALYSIS**

Date: January 31, 2023

Certificate Number: 56393

To : Univar

Product: 93 % Sulfuric Acid

Bill of Lading Number: 9642997

Rail Car Number: UTLX 125226

Lot Number: 031 23

Other Information: \_\_\_\_\_  
 \_\_\_\_\_

PARAMETER	SPECIFICATION		SAMPLE
	Minimum	Maximum	ANALYSIS
Sulfuric Acid , % H <sub>2</sub> SO <sub>4</sub>	93.2	93.9	93.4
Iron , ppm Fe		20.0	1.5
Specific Gravity at 68°F			1.832

By : *Cynthia Becerra*  
 Laboratory



## Safety Data Sheet

### SULPHURIC ACID 66 Be°

Version 1.6

Revision Date: 09/30/2022

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** : SULPHURIC ACID 66 Be°

**Recommended use of the chemical and restrictions on use**

**Recommended use** : industrial chemical

**Manufacturer or supplier's details**

**Company** : Univar Solutions USA, Inc.  
**Address** : 3075 Highland Pkwy Suite 200  
 Downers Grove, IL 60515  
 United States of America (USA)

**Emergency telephone number:**

Transport North America: CHEMTREC (1-800-424-9300)  
 CHEMTREC INTERNATIONAL Tel # 703-527-3887

**Additional Information:** : Responsible Party: Product Compliance Department  
 E-mail: SDSNA@univarsolutions.com  
 SDS Requests: 1-855-429-2661  
 Website: www.univarsolutions.com

#### SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification**

**Corrosive to metals** : Category 1

**Skin corrosion** : Category 1A

**Serious eye damage** : Category 1

**Carcinogenicity** : Category 1A

**Specific target organ toxicity - single exposure** : Category 3 (Respiratory system)

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.  
 H335 May cause respiratory irritation.  
 H350 May cause cancer.

**Precautionary statements** : **Prevention:**  
 P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P234 Keep only in original container.  
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

## Safety Data Sheet

### SULPHURIC ACID 66 Be°

Version 1.6

Revision Date: 09/30/2022

P264 Wash skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
 P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
 P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.  
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
 P363 Wash contaminated clothing before reuse.  
 P390 Absorb spillage to prevent material damage.  
**Storage:**  
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.  
 P406 Store in corrosive resistant container with a resistant inner liner.  
**Disposal:**  
 P501 Dispose of contents/ container to an approved waste disposal plant.

#### Other hazards

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Hazardous components

CAS-No.	Chemical name	Weight percent
7664-93-9	Sulfuric acid	90 - 100

Any Concentration shown as a range is due to batch variation.

Molecular formula : H<sub>2</sub>O<sub>4</sub>S

### SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.  
 Consult a physician.  
 Show this safety data sheet to the doctor in attendance.  
 Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.  
 If symptoms persist, call a physician.

## Safety Data Sheet

### SULPHURIC ACID 66 Be°

Version 1.6

Revision Date: 09/30/2022

- |                         |  |
|-------------------------|--|
| In case of skin contact | : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.<br>If on skin, rinse well with water.<br>If on clothes, remove clothes.   |
| In case of eye contact  | : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.<br>In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.<br>Continue rinsing eyes during transport to hospital.<br>Remove contact lenses.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist.<br>Take victim immediately to hospital. |
| If swallowed            | : Clean mouth with water and drink afterwards plenty of water.<br>Keep respiratory tract clear.<br>Do NOT induce vomiting.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.<br>Take victim immediately to hospital.   |

#### SECTION 5. FIREFIGHTING MEASURES

- |   |   |
|---|---|
| Suitable extinguishing media                  | : Dry chemical<br>Carbon dioxide (CO <sub>2</sub> )   |
| Unsuitable extinguishing media                | : High volume water jet<br>Water  |
| Hazardous combustion products                 | : sulfur oxides<br>Gases hazardous to health may be formed.<br>Sulphuric acid   |
| Specific extinguishing methods                | : Use a water spray to cool fully closed containers.  |
| Further information                           | : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.<br>Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| Special protective equipment for firefighters | : Wear self-contained breathing apparatus for firefighting if necessary.  |

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

- |   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment.  |
| Environmental precautions   | : Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<br>If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for   | : Soak up with inert absorbent material (e.g. sand, silica gel,   |

## Safety Data Sheet

### SULPHURIC ACID 66 Be°

Version 1.6

Revision Date: 09/30/2022

containment and cleaning up : acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

#### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
To avoid spills during handling keep bottle on a metal tray.  
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Do not store near acids.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7664-93-9	Sulfuric acid	TWA (Thoracic particulate matter)	0.2 mg/m <sup>3</sup>	ACGIH
		TWA	1 mg/m <sup>3</sup>	NIOSH REL
		TWA	1 mg/m <sup>3</sup>	OSHA Z-1
		TWA	1 mg/m <sup>3</sup>	OSHA P0
		PEL	0.1 mg/m <sup>3</sup>	CAL PEL
		STEL	3 mg/m <sup>3</sup>	CAL PEL

##### Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air

## Safety Data Sheet

### SULPHURIC ACID 66 Be°

Version 1.6

Revision Date: 09/30/2022

Hand protection	purifying respirators may not provide adequate protection.
Remarks	: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	: Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: Clear, colorless, amber
Odour	: pungent
Odour Threshold	: No data available
pH	: 0.3 @ 25 °C (77 °F)
Freezing Point (Melting point/range)	: -31 - 10.56 °C (-24 - 51.01 °F)
Boiling Point (Boiling point/boiling range)	: 217 - 330 °C (423 - 626 °F)
Flash point	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: < 0.3 mmHg @ 25 °C (77 °F)
Relative vapour density	: 3.4 @ 20 °C (68 °F) (Air = 1.0)
Relative density	: 1.8347 - 1.8437 @ 25 °C (77 °F) Reference substance: (water = 1)
Density	: Estimated 1.837 g/cm <sup>3</sup> @ 20 °C (68 °F)  15.3 - 15.4 lb/gal @ 25 °C (77 °F)
Solubility(ies)	
Water solubility	: completely miscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available

**Safety Data Sheet**  
**SULPHURIC ACID 66 Be°**

Version 1.6

Revision Date: 09/30/2022

Thermal decomposition : 340 °C

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No dangerous reaction known under conditions of normal use.  
Chemical stability : Stable under normal conditions.  
Possibility of hazardous reactions : Acid reacts with most metals to release hydrogen gas which can form explosive mixtures with air.  
Reacts with organic materials and may cause ignition of finely divided materials on contact.

Conditions to avoid : Avoid contact with combustible material (paper, wool, oil).  
Incompatible materials : Alkalis  
Metals  
carbide  
chlorates  
fuminates  
nitrates  
Organic materials  
Strong oxidizing agents  
strong reducing agents  
water  
Sulphur compounds  
acetylenes  
Acids  
Ammonia  
Combustible material  
Flammable materials  
Metals  
nitrates  
Nitriles  
nitrites  
Organic materials  
Oxidizing agents  
phosphorus  
Powdered metals  
Reducing agents  
water  
Peroxides

Hazardous decomposition products : corrosive vapors  
Sulphur oxides  
toxic fumes

**SECTION 11. TOXICOLOGICAL INFORMATION****Skin corrosion/irritation****Product:**

**Safety Data Sheet**  
**SULPHURIC ACID 66 Be°**

Version 1.6

Revision Date: 09/30/2022

Remarks: Extremely corrosive and destructive to tissue.

**Components:****7664-93-9:**

Species: Rabbit

Result: Causes severe burns.

**Serious eye damage/eye irritation****Product:**

Remarks: May cause irreversible eye damage.

**Components:****7664-93-9:**

Species: Rabbit

Result: Risk of serious damage to eyes.

**Germ cell mutagenicity****Components:****7664-93-9:**

Genotoxicity in vitro

: Test Type: Ames test

Species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

**Carcinogenicity****Product:**

Carcinogenicity - Assessment

**IARC**

: Human carcinogen.

Group 1: Carcinogenic to humans

7664-93-9

Sulfuric acid

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

Known to be human carcinogen

7664-93-9

Sulfuric acid

**STOT - single exposure****Product:**

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

**Further information****Product:**

**Safety Data Sheet**  
**SULPHURIC ACID 66 Be°**

Version 1.6

Revision Date: 09/30/2022

Remarks: No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects****Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.  
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION**

**DOT (Department of Transportation):**  
UN1830, SULFURIC ACID, 8, II



# Safety Data Sheet

## SULPHURIC ACID 66 Be°

Version 1.6

Revision Date: 09/30/2022

**IATA (International Air Transport Association):**  
UN1830, SULPHURIC ACID, 8, II

**IMDG (International Maritime Dangerous Goods):**  
UN1830, SULPHURIC ACID, 8, II

### SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** : D2A: Very Toxic Material Causing Other Toxic Effects  
D2B: Toxic Material Causing Other Toxic Effects  
E: Corrosive Material

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric acid	7664-93-9	1000	1000

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric acid	7664-93-9	1000	1000

**SARA 311/312 Hazards** : Corrosive to metals  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Carcinogenicity  
Specific target organ toxicity (single or repeated exposure)

**SARA 302** :

7664-93-9 Sulfuric acid

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

7664-93-9 Sulfuric acid

#### Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

#### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7664-93-9 Sulfuric acid

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7664-93-9 Sulfuric acid

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

#### Massachusetts Right To Know

# Safety Data Sheet

## SULPHURIC ACID 66 Be°

Version 1.6

Revision Date: 09/30/2022

7664-93-9 Sulfuric acid

### Pennsylvania Right To Know

7664-93-9 Sulfuric acid  
7732-18-5 Water

### California Prop 65

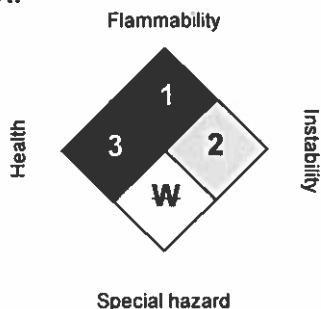
**⚠ WARNING:** This product can expose you to chemicals including Sulfuric acid, which is/are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory  
 DSL : All components of this product are on the Canadian DSL  
 AICS : On the inventory, or in compliance with the inventory  
 NZIoC : Not in compliance with the inventory  
 ENCS : On the inventory, or in compliance with the inventory  
 KECI : On the inventory, or in compliance with the inventory  
 PICCS : On the inventory, or in compliance with the inventory  
 IECSC : On the inventory, or in compliance with the inventory

## SECTION 16. OTHER INFORMATION

### NFPA:



### HMIS III:

HEALTH	3*
FLAMMABILITY	1
PHYSICAL HAZARD	2

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by

## Safety Data Sheet

### SULPHURIC ACID 66 Be°

Version 1.6

Revision Date: 09/30/2022

Univar Solutions Product Compliance Department (1-855-429-2661)  
SDSNA@univarsolutions.com.

Revision Date : 09/30/2022

**Material number:**

16140266, 16187970, 16186715, 16177232, 16178973, 16178227, 16176163, 16176386, 16176196, 16177166, 16162887, 16169706, 16173568, 16173209, 16152466, 16163888, 16172838, 16145761, 16145532, 16145325, 16145036, 16144466, 16158800, 16152844, 16146037, 16147599, 16147477, 16158884, 16158841, 16145294, 16144737, 16143905, 16148041, 16144253, 16148755, 16163605, 16163600, 16148558, 16166436, 16166263, 16149587, 16138737, 16144430, 16159796, 16144634, 16144492, 16148416, 16152198, 16151380, 16151346, 16148456, 16148188, 16144447, 16144280, 16144100, 16144089, 16159794, 16143770, 16143771, 16160331, 16136043, 16149274, 16158943, 16149737, 16149062, 16148018, 16147993, 16145633, 16145526, 16144840, 16144220, 16143768, 16147033, 16147042, 16144370, 16144451, 16142210, 16140162, 16141097, 16140348, 16141851, 16141877, 16140763, 16143767, 16143769, 16142063, 16142367, 16142360, 16140603, 16142270

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act

**Safety Data Sheet**  
**SULPHURIC ACID 66 Be°**

Version 1.6

Revision Date: 09/30/2022

KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

**EXHIBIT "B"**

**CERTIFICATES OF INSURANCE AND ENDORSEMENTS**