RESOLUTION NO. 76-2021

Introduced by Joe Dike

A RESOLUTION AUTHORIZING THE CITY MANAGER TO AWARD THE BID AND AUTHORIZE THE EXPENDITURE OF FUNDS FOR THE PURCHASE OF WATER TREATMENT CHEMICALS TO UNIVAR SOLUTIONS USA INC. IN AN AMOUNT NOT TO EXCEED THIRTEEN THOUSAND THREE HUNDRED EIGHTY AND XX/100 DOLLARS (\$13,380.00)

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF HURON, OHIO:

SECTION 1. That the City of Sandusky having advertised for bids on behalf of the City of Huron and other entities, has provided a final bid tabulation indicating the lowest and best bid for each chemical and that based on that tabulation, the City Manager is authorized and directed to award the bid and expenditure of funds for the purchase of 6,000 Gallons of Hydrofluosilicic Acid to Univar Solutions USA Inc. in an amount not to exceed Thirteen Thousand Three Hundred Eighty and xx/100 Dollars (\$13,380.00), bid in the form of Exhibit "A" attached hereto and made a part hereof.

SECTION 2. That this Council hereby finds and determines that all formal actions relative to the adoption of this Resolution were taken in an open meeting of this Council and that all deliberations of this Council and of its Committees, if any, which resulted in formal action, were taken in meetings open to the public in full compliance with applicable legal requirements, including O.R.C. §121.22.

SECTION 3. That this Resolution shall be in full force and effect from and immediately after its adoption.

ADOPTED: 0 9 NOV

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BIDDER'S NAME:	Shelley Riggle
Authorized Signature:	By Shilley Rigde
Print Name of Authorized Signatory:	Shelley Riggle
Title:	Municipal Specialist
Participant Name (If different from Bidder).	
Company Name:	Univar Solutions USA class
Mailing Address:	4600 Dues Deive
	Cincinnati Ohio 45246
Telephone Number	513-969-7393
Facsimile Number:	
E-Mail Address:	Shelley Riggle o UNIVARSOLUTIONS
Where Incorporated:	Washington
Federal Tax Identification Number	91-1341935
Contact Person for Contract processing.	Shelley Riggle
ADDITIONAL SIGNATI	URE FOR JOINT VENTURE
Authorized Signature	
20 10 00 00 00 00 00 00 00 00 00 00 00 00	Ву:
Print Name of Authorized Signature	
Title:	1/4
Participant Name:	NI.
Mailing Address:	
Telephone Number.	
Facsimile Number:	/
(00341693.DOC;6) CITY	Y-BF-6

CITY OF SANDUSKY, HURON AND ERIE COUNTY CHEMICALS FOR CALENDAR YEAR 2022

ITEM NO.	CHEMICAL DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST
1	Liquid Sodium Permanganate (NaMnO ₄)	12,000 Gallons More or Less	4	4
2	# 4,000 gailen minimum order oly # Hydrofluosilicic Acid (H;SIFs)	17,000 Gallons More or Less	59.13 gallon \$ 36,210.00	\$ 36,210, 00 33/19
m	Sodium Hydroxide Liquid (NaDH) 50%	50,000 Gallons More or Less	s 3.368 gallan	s/68 400.00
4	Sodium Hypochlorite (NaOCI)	90,000 Gallons More or Less	s.	P
2	Aluminum Sulfate Polymer Blend - Liquid (Type One) (AL ₂ (SO ₄) ₃)	101,500 Gallons More or Less/ 600 Wet Tons	8	P
9	Powdered Activated Carbon (PAC)	123,000 Pounds Mare or Less	S	8
7	Ferrous Chloride Solution (FeC12)	350,000 Pounds More or Less Dry Weight \$/dry lbs of Fe	S	4
80	Polymer - Liquid	88,000 Pounds More or Less	s Ø	\$
6	Ferrous Chloride Solution (FeC12)	25,000 Gallons More or Less	s	4
10	Sodium Aluminate - Liquid	16,000 Gallons More or Less in bulk loads and/or 300 gallon totes	9	p
		7,000 Gallons in 300 Gallon Totes 900		
11	Sadium Bisulfite Solution (Reducite)	Gallons in 15 Gallon Drums More or Less	9	P
12	Sodium Hypochlorite (NaDCI)	15,000 Gallons in 300 Gallon Totes 2,700 Gallons in 50 Gallon Drums 2,600 Gallons in 15 Gallon Drums More on Less	þ	þ
13	Polymer - Liquid	10,000 Pounds more or less in 2,300 Pound Totes	s d	\$
41	Liquid Chlorine (Ct.)	28,000 Paunds More or Less \$/lbs Deposit fee per 150 lb. cyclinder, if applicable	Ď	\$
15	Powdered Activated Carbon (PAC)	8 Tans More or Less	S	\$

CITY OF SANDUSKY, HURON AND ERIE COUNTY CHEMICALS FOR CALENDAR YEAR 2022

19.788. 17.840 ф Shelley. Riggle e univaksolutions, com le 49 gallon gallon Φ 23 φ φ 6. (300 gallon) Totes More or Less 250,000 Pounds More or Less 10 (275 gaillon) Totes More or Le 12,000 Pounds More or Less 8,000 Gallons More or Less 4,000 Gallons More or Less 20,000 Gallons More or Less 7,200 Gallons More or Less 18,000 Pounds More or 12,000 Gallons More 17 (300 gallon) Totes 1,800 gailon minimism order Oby A tydrofluosilice Acid (H,SIF.) iquid Sodium Perma 18 5

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Shelley Riggle 124 Chapel Hill Drive Fairfield Ohio 45014

CITY OF SANDUSKY BID GUARANTY AND CONTRACT BOND

(Section 153.571, Ohio Revised Code)

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned

Univar Solutions USA Inc., 4600 Dues Drive, Cincinnati, OH 45246 (Name and Address) as Principal, and __Travelers Casualty and Surety Company of America

(Name of Surety)

as Surety, are hereby held and firmly bound unto the City of Sandusky, Ohio, as Obligee, in the penal sum of the dollar amount of the bid submitted by the Principal to the Obligee on October 14 20 21 to undertake the Project known as:

CHEMICALS FY2022

The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Obligee, incorporating any additive Alternate bids proposals made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of Dollars (\$ above lines are left blank, the penal sum will be the full amount of the Principal's bid. including additive Alternates. Alternatively, if completed, the amount stated must not be less than the full amount of the bid, including additive Alternates, in dollars and cents. A PERCENTAGE IS NOT ACCEPTABLE.). For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH that whereas the abovenamed Principal has submitted a bid for the above-referenced Project:

NOW, THEREFORE, if the Obligee accepts the bid of the Principal and the Principal fails to enter into a proper Contract in accordance with the Contract Documents, including the bid, Plans, Specifications and details; and in the event the Principal pays to the Obligee the difference, not to exceed 10% of the penal sum hereof, between the amount specified in the bid and such larger amount for which the Obligee may in good faith contract with the Bidder determined by the Obligee to be the next lowest and best Bidder to perform the Work covered by the bid; or in the event the Obligee does not award the Contract to such next lowest and best Bidder and resubmits the Contract for bidding, the Principal pays to the Obligee the difference not to exceed 10% of the penal sum hereof, between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new Contract Documents, required advertising, and printing and mailing notices to prospective Bidders, whichever is less, then this obligation

(02436332 DOC;2)

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shall be null and void, otherwise to remain in full force and effect. If the Obligee accepts the bid of the Principal and the Principal within 10 days after written notice of intent to award the Contract executes the Contract Form in accordance with the Contract Documents, including the bid, Plans, Specifications and details, which said Contract is made a part of this Bond the same as though set forth herein;

NOW ALSO, IF THE SAID Principal shall well and faithfully perform each and every condition of such Contract; and indemnify the Obligee against all damage suffered by failure to perform such Contract according to the provisions thereof and in accordance with the Contract Documents, including the Plans, Specifications and details therefor, and shall pay all lawful claims of Subcontractors, Material Suppliers, and laborers for labor performed and materials furnished in the carrying forward, performing, or completing of said Contract; we agreeing and assenting that this undertaking shall be for the benefit of any Subcontractor, Material Supplier or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void, otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal sum of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions, or additions in or to the terms of the said Contract, the Work thereunder or the Contract Documents, including the Plans and Specifications therefor shall in anyway affect the obligations of said Surety on this Bond, and the Surety does hereby waive notice of any such modifications, omissions or additions in or to the terms of the Contract, the Work or the Contract Documents, including the Plans and Specifications.

PRINCIPAL: Univar Solutions USA Inc. BY: Julia Malperin, Assistant Secretary	
SURETY: <u>Travelers Casualty and Surety Company</u> of America	SURETY ADDRESS:
	One Tower Square, Bond 5/PB
	Street
BY: Mother &	Harrford, CT 06183
Attorney-in-Fact Misty Wright	City State Zip
onsty wingth	925-945-4121
	Telephone Number
	SURETY AGENT'S ADDRESS:
	AON
	Agency Name
	5555 San Felipe, Suite 1500
	Street
	Houston, Texas 77056
	City State Zip
	()832 476-6803
	Telephone Number

September

SIGNED This 24th day of



Travelers Casualty and Surety Company of America Travelers Casualty and Surety Company St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casuaty and Surety Company of America, Travelers Casuaty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectivety celled the "Companies"), and that the Companies do hereby make, constitute and appoint Mistry Wright of

HOUSTON Taxas . Their true and lawful appoint starty wright and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seeks to be hereto affixed, this 21st day of April 2021.







State of Connecticut

City of Hartford ss

By Robert L. Raney Senior Vice President

On this the 21st day of April. 2021, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes thatein contained by signing on behalf of said Companies by himself as a duty authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2026



Anna & Marie Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Charman, the President, any Vice Chairman, any Executive Vice President, any Servor Vice President, and ship of the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointed and trivote the power given him or her, and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Sonior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is field in the officer of the Socretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chalman, any Exceptive Vice President or any Vice President or the Corporate Secretary or any Assistant Secretary and duly attested and seeled with the Company's seal by a Secretary or Assistant Secretary or (b) duly executed funder seal, if required by one or more Attorneys-in-Pact and Agents pursuant to the power prescribed in his or her certification of their confinediate of authority of by one or more Company officers pursuant to a written delegation of authority, and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Senior Vice President Senior Vice President Senior Vice President Senior Vice President Senior Assistant Secretises or Attorneys-in-Fact for purposes only of oxecuting and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorneys or certificate boaring such faccinities signature or foscinities and shall be visit and binding upon the Company and any such power so executed and certified by such faccinities signature or foscinities sent shall be visit and binding upon the future with respect to any bond or understanding to which it is statched.

1. Kevin E. Hughes, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 24th day of September , 2021







Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, pleaso call us at 1-600-421-3880. Please rafer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached. Effective Pater November 27, 1984
**Expiration Bute: April 1, 2022

State of Phio

Department of Insurance

Vertificate of Authority

Chie is to Certify, that

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

NAIC No. 31194

is authorized in Ohio to transact the business of insurance as defined in the following section(s) of the Ohio Revised Code:

Section 3929.01 (A)

Aircraft

Allied Lines

Boiler & Machinery

Burglary & Theft

Commercial Auto - Liabilin

Commercial Auto - No Fault

Commercial Auto - Physical Damage

Earthquake

Fidelity

Financial Guarani

Fire

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Medical Maloractics

Multiple Peril - Commercia

Multiple Peril - Farmowners

Accident & Health

Multiple Peril - Homeowner

Occan Marine

Other Liability .

Private Passenger Auto - Liability
Private Passenger Auto - No Fault

Private Passenger Auto - Physical Dinnage

Suzety

Workers Compensation

This Certificate of Authority is subject to the laws of the Sinte of Chio.



Mike DeWine, Governor

Sulith L. French

Judith French, Director

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

HARTFORD, CONNECTICUT 00183

FINANCIAL STATEMENT AS OF DECEMBER 31, 2020.

CAPITAL STOCK \$ 6,480,000

ASSETS		DABRITIES & SURPLUS	
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STATE OF CONNECTICUT

COUNTY OF HARTFORD

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JICHAEL J. DODDY, BEING DULY SWORN, SAYS THAT HE IS VICE PRESIDENT - FINANCE, OF TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA, IND THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT STATEMENT OF THE FINANCIAL CONDITION OF SAID COMPANY AS OF THE SIST DAY OF DECEMBER, 2020

VICE PRESIDENT - FINANCE

JUBSCRIRED AND SWORN TO BEFORE ME THIS 5TH DAY OF MARCH 2021



NOTARY PUBLIC

SUSAN M. WEISSLEDER

Notacy Public

My Computssion Expires Navember 39, 2022



NATIONAL ASSOCIATION OF SURETY BOND PRODUCERS

7735 Old Georgetown Road, Suite 900 Bethesda, MD 20814 Tel: 240,200,1270 Fax: 240.200.1295 www.nasbp.org

NASBP White Paper: Resident Agent Countersignature Laws Have Been Eradicated and Violate the Law in Every U.S. State

The purpose of this short white paper is to inform the reader that resident agent countersignature laws have been eradicated throughout the United States and its territories (with the exception of Guam, where it has not been challenged). Any bid, performance, or payment bond that requires a resident agent countersignature or a resident agent signature violates the law, as such requirements have been held unconstitutional by federal courts throughout the United States or have been repealed by state legislatures, because such requirements impermissibly favor licensed resident agents over licensed non-resident agents. It is not the countersignature requirement that is problematic; it is the resident agent countersignature requirement that violates the law.

The National Association of Surety Bond Producers (NASBP) is aware that officials in some state and local agencies are not informed about the illegality of resident agent countersignature mandates. These officials will improperly reject a bid based on lack of a required resident agent countersignature or improperly refuse to accept performance and payment bonds based on lack of a required resident agent countersignature. NASBP receives dozens of member requests each year to send comment letters to public agencies that have included the unlawful resident agent countersignature requirement in their surety bonds.

Countersignature laws date back to the early twentieth century when states passed the laws as a consumer protection measure. The regulations requiring non-resident agents to receive signoff by a local resident agent were originally intended to ensure compliance with local insurance laws. Those regulations also meant that out-of-state agents had to pay local agents for their signatures. By the 1990s, technology made the countersignature laws an anachronism of regulation. The movement to repeal countersignature laws began in the 1990s and ended in 2008 when the Ninth Circuit struck down Nevada's countersignature law. This movement was spearheaded by The Council of Insurance Agents & Brokers.

One of the most well-known and widely quoted cases on this matter is Council of Insurance Agents and Brokers v. Tom Gallagher, 287 F. Supp. 2d 1302 (N.D. Fla. 2003), in which the U.S. District Court for the Northern District of Florida struck down a Florida statute that impermissibly favored resident agents. The district court determined that there was no rational basis for a distinction between Florida licensed resident agents and Florida licensed nonresident agents and declared unconstitutional the Florida statute at issue that discriminated against Florida-licensed non-resident agents.

Agency officials may want to have the agency's bond forms reviewed to ensure that its bonds do not contain an illegal resident agent signature or countersignature requirement. The bonds should contain a licensed (resident OR non-resident) agent requirement.

October 2018

CERTIFICATION CE	ICATE OF LI	IABILITY I	NSUR	NCE	OS/20/2021	, m
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Univar Solution:

4600 Dues Drive Cincinnati Ohio 45246 45246 USA

PROJECT NAME: Chemicalo FY 2022 CONTRACT NO.:

PERSONAL PROPERTY TAX CERTIFICATION REQUIRED BY OHIO REVISED CODE SECTION 5719.042

FINANCE DIRECTOR CITY OF SANDUSKY

Univar Solutions USA clave

STATE OF Chio

COUNTY OF BIHLIA S

THE UNDERSIGNED HEREBY CERTIFIES THAT THE BIDDER TO WHOM CONTRACT AWARD IS BEING CONSIDERED WAS NOT CHARGED WITH ANY DELINQUENT PERSONAL PROPERTY TAX ON THE GENERAL TAX LIST OF PERSONAL PROPERTY FOR ANY COUNTY IN THE STATE OF OHIO AT THE TIME THE BID WAS SUBMITTED FOR THE ABOVE-REFERENCED CONTRACT.

NAME: Shelley Rigg

TITLE: Municipal Specialis

STATE OF ALLO COUNTY OF BUTTLE SS:

SWORN TO BEFORE ME AND SUBSCRIBED IN MY PRESENCE THIS 1 DAY

NOTARY PUBLIC

NOTE: THIS AFFIDAVIT' IS TO BE REPRODUCED ON THE BIDDER'S LETTERHEAD AND SIGNED BY THE APPROPRIATE SIGNATORY BEFORE A NOTARY PUBLIC.

{\$JD0318,DOC;4}

CITY-IB-19



4500 Dues Drive Cincinnati Ohio 45246 45246 USA

CITY OF SANDUSKY BIDDER'S AFFIDAVIT

[NOTE: THIS AFFIDAVIT IS TO BE REPRODUCED ON THE BIDDER'S LETTERHEAD AND SIGNED BY THE APPROPRIATE SIGNATORY BEFORE A NOTARY PUBLIC. CROSS OUT EITHER PARAGRAPH 3 OR 4, WHICHEVER IS NOT APPLICABLE. IF PARAGRAPH 3 IS NOT CROSSED OUT, EXHIBIT A MUST BE COMPLETED AND ATTACHED TO NAME AND DESCRIBE THE INTERESTS OF ALL RELATED PERSONS.1

PROJECT NAME: Chemical FY 2022
CONTRACT:

ETHICS CERTIFICATION PURSUANT TO OHIO REVISED CODE SECTIONS 9.24, 102.03, 102.04, 2921.42 AND 3517.13

DIRECTOR OF ENGINEERING SERVICES CITY OF SANDUSKY

HRIVAY SOLUTIONS / ISI CLARCE
BIDDER'S NAME
STATE OF Phio
COUNTY OF BULLIA SS.

The undersigned being duly swom, deposes and states as follows:

- $\label{eq:local_local_local} \textbf{I} \text{ The undersigned is duly authorized to make the statements herein on behalf of the } \\ \textbf{Bidder.}$
- No unresolved finding for recovery has been issued against the Bidder by the Auditor of State.
- 3. No official or employee of the City of Sandusky is officer, director, trustee, shareholder, partner, member or owner of the Bidder (each, a "Related Person"), or is a business associate or a member of the family of the Bidder or a Related Person.
- 4. An official or an employee of the City of Sandusky is an officer, director, trustee, shareholder, partner, member or owner (each, a "Related Person") of the Bidder, or is a business associate or a member of the family of the Bidder or Related Person, but
 - the subject of the Contract is necessary supplies or services for the City of

[02/66332 DOC2] CITY-BA-1	
---------------------------	--



4600 Dues Drive Cincinnati Ohio 45246

45246 USA

- the supplies or services are unobtainable elsewhere for the same or lower cost, or are being furnished to the City of Sandusky as part of a continuing course of dealing established prior to the Related Person becoming a City official or employee:
- the treatment accorded the City of Sandusky is either preferential to or the same as that accorded other customers of the Bidder in similar transactions:
- the entire transaction resulting in the Contract has been conducted at armslength, with full knowledge by the City of the interest of the Related Persons as described in Exhibit A attached hereto; and
- the Related Person has taken no part in the deliberations or decision of the City with respect to the Contract.
- The Bidder is a/an (select one):

☐ Individual, partnership, or other unincorporated business association (including a professional association organized under Ohio Revised Code Chapter 1785),

Proporation organized and existing under the laws of the State of Washington ☐ Labor organization.

The undersigned hereby affirms that the Bidder and each of the individuals specified in Section 3517.13(1)(3), ORC, (with respect to non-corporate entities and labor organizations) or Section 3517.13(I)(3), ORC, (with respect to corporations) are in full compliance with the political contributions limitations set forth in Sections 3517.13(I) and (J), ORC, as applicable. I understand that a false representation on this certification constitutes a felony of the fifth degree pursuant to Sections 3517.13(AA) and 3517.992(R)(3), ORC. Any contract that contains a falsified certification shall be rescinded.

Sworn to before me and subscribed in who presence this

(02436332.DOC;2)

CITY OF SANDUSKY BIDDER'S AFFIDAVIT EXHIBIT A

Project Name: Chun	icals for the Calendar Year 2024
Contract:	
Bidder's Name:	ivar Solutions USA cluc
Related official/public e	mployee
Name:	NA
Title/Position:) '
Relation to Bidd	*

(02436332.DOC;2)

CITY-BA-3



4600 Dues Drive Cincinnati Ohlo 45246 45246 USA

CITY OF SANDUSKY BIDDER'S AFFIDAVIT #2

CONTRACT NAME: Chemicals FY22

LOBBYING AND CAMPAIGN FINANCING CERTIFICATION

DIRECTOR OF ENGINEERING SERVICES CITY OF SANDUSKY

Muvar Solutions US clax
BIDDER'S NAME

STATE OF Ofice SS.

The undersigned hereby certifies as follows:

- The Bidder is and will remain in compliance with the requirements of Sections 101.70 and 121.60 et seq. of the Ohio Revised Code relating to lobbying.
- 2. The Bidder is and will remain in compliance with Chapter 3517 of the Ohio Revised Code, Campaign Financing, including that all applicable parties listed in division (I)(3) (with respect to non-corporate entities and labor organizations) or (I)(3) (with respect to corporations) are in full compliance with divisions (I)(1) and (I)(1) of the Ohio Revised Code Section 3517.13.

NAME Skilley Riggle (SIGNATURE)

NAME: Shelley Kiggle

TITLE: Muricipal Speadost

UnivarSolutions

4600 Dues Drive Cincinnati Ohlo 45246 45246 USA

STATE OF Ohio

SWORN TO BEFORE ME AND SUBSCRIBED IN MY PRESENCE THIS

NOTARY PUBLIC

NOTE: THIS AFFIDAVITY STOOTS REPRODUCED ON THE BIDDER'S LETTERHEAD AND SIGNED BY THE APPROPRIATE SIGNATORY BEFORE A NOTARY PUBLIC.

CITY-BA2-2

CITY OF SANDUSKY NON-COLLUSION AFFIDAVIT

COUNTY OF TATIFICA
The undersigned hereby certifies as follows:
(1) The bid to the City of Sandusky, Ohio, submitted by the Bidder on 10-6-2021 in accordance with the Contract Documents dated 10-6-2021 (the "Bid") has been prepared by the Bidder without collusion or fraud with any Person.
(2) The Bid is not made in the interest of or on behalf of any undisclosed Person.
(3) The Base Bid, any Unit Price and any Alternate bid in the Bid have been arrived at independently without collusion, consultation, communication or agreement, or for the purpose of restricting competition as to any matter relating to such Base Bid, Unit Price or Alternate with any other Bidder.
(4) Unless otherwise required by law, the Base Bid, any Unit Price and any Alternate bid in the Bid have not been knowingly disclosed by the Bidder and will not be knowingly disclosed by the Bidder prior to the bid opening, directly or indirectly, to any other Bidder who would have any interest in the Base Bid, Unit Price or Alternate bid.
(5) No attempt has been made or will be made by the Bidder to induce any other Person to submit or not to submit a bid for the purpose of restricting competition.
Date: 10-6, 2021 Linux Solutions USI clare (Namo of Bidder)
By: Milley Right Signature of person authorized to bind the Bidder
•

CTTY-NCA-1

(STREET RESURFACENCE)

STATE OF Ohio	
COUNTY OF DUTLE	
SWORN TO BEFORE ME AND SUBS	SCRIBED IN MY PRESENCE THIS CODAY OF
	Mayor side

(STREET RESURFACINO:9)

CITY-NCA-2

Tech Data Sheet

Univar Solutions

Caustic Soda Diaphragm Grade 25%

Specifications			
PROPERTIES	PARAMETERS		
NaOH, % wt.	23.0 – 27.0		
Ne ₂ O, % wt.	17.4 - 21.3		
NaCl, % wt.	0.55 max		
Na ₂ GO _{3, % we.}	0.1 max.		
NaClO ₃ %wt	0.2 max.		
Na ₂ SO ₄ , % wt.	0.0375 max.		
Fe, ppm	5.0 max		

UTDS-0445 - Caustic Soda Diaphragm Grade 25% - 04-14-2021

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. Univer Solutions USA linc. ("Univer") makes no representation or werrarry, express, or implied, concerning the accuracy or sufficiency of the information. Univer Solutions in Contral late for any damages resulting from the use or non-use of the information. All transactions whole give however the subject to Univer Solutions is not late for any damages resulting from the use or non-use of the information. All transactions whole give how the sufficiency of the product.

Solutions 'standard Terms and Conditions, available at universolutions com or upon request. Univer Solutions makes no additional representations or warrantes, express or implied, as to the Product.

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Tech data sheet

Univarsalutions

Caustic Soda 50% - Diaphragm Grade

Product details

- Caustic Soda Diaphragm Grade 50% is a clear or opaque liquid.
- Univar Solutions supplied 50% Liquid Sodium Hydroxide meets the purity standards of the Food Chemical Codex

PROPERTIES	PARAMETERS
Sodium Hydroxide (NaOH), % wt.	49.00 - 51.50
Sodium Oxide (Na ₂ O), % wt.	38.00 - 39.90
Sodium Chloride (NaCl), % wt.	1.10
Sodium Carbonate (Na ₂ CO ₃), % wt.	0.20 max.
Sodium Chlorate (NaClO ₃), % wt.	0.40 max
Sodium Sulfate (Na ₂ SO ₄), % wt.	0.075 max
Iron (Fe), ppm	10.0 max.
EXSTRACTION AND ENTRY IN THE	

UTDS - 0107 Caustic Soda 50% Diaphragm Grade 06.03.2020

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 USA I in: "Univars" makes no representation or warrary, express, or impled, concerning the accuracy or sufficiency of the information. Univar Solutions is not liable for any dramages resulting from the use or non-use of the information. All instanctions involving this Product are subject to Univar Solutions' standard Terms and Conditions, available at univarsolutions, com or upon request. Univar Solutions makes no additional representations or warrantes, express or implicit, as to the Product.

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Product Name: Hydrofluorosilicic Acid (HFSA)

23% H2SiF8

Grade: Industrial Order Code: HFSA

SDS No.: 217

Source: Aurora

Alternate Names: Fluorosificic Acid, FSA

page 1 of 1

TYPICAL ANALYSIS	TYPICAL	GUARANTEED
HFSA, as H ₂ SF ₆	24.1	23.0 min.
H ₂ SiF ₆ , as F	19.1	
Heavy Metals, as lead (Pb)	<0.02%	
Phosphales, as P ₂ O ₃	0.2	
Lead, as Pb	1.0 ppm	
tron, as Fe ₂ O ₃	70 ppm	
lodide, as 1	18 ppm	
Arsenic, as As	8.0 ppm	

PHYSICAL DATA	TYPICAL GUARANT	166 (1)
Appearance	Water White to Straw Yellow	
Specific Grantly @ 75'F	1.23	
Weight, bulgal @ 75°F	10.3	





Safety Data Sheet CAUSTIC SODA 25%

Version 1.2

Revision Date: 06/04/2020

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 Address

Univer Solutions USA, Inc.

Oniver Scittoris USA, Inc. 3075 Highland Plwy Suite 200 Downers Grove, IL 60515 United States of America (USA)

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-8300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information:

Responsible Party: Product Compliance Department

E-mail: SDSNA@univarsolutions.com SDS Requests: 1-855-429-2681 Website: www.universulutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals

: Catagory 1

Skin corresion

: Category 1A

Serious eye damage

: Category 1

GHS tabel elements

Hazard pictograms



Signal word

Hazard statements

: H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary statements

Provention:
P234 Keep only in original container.
P264 Wash skin thoroughly after handling
P260 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.

SDS Number: 100000038904

1/11

CAUSTIC SODA 25%

05/2016

PCS Selse (USA), Inc. • 1101 Stotic Blvd., Northbrook, Elinois 60062 Phone: (847) 849-4200 • 1 (800) 654-4514



Safety Data Sheet CAUSTIC SCHARM

Version 1.2

Revision Date: 06/04/2020

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

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for savaral 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.

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner

Disposal:

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

Other hazante

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mbdure

CAS-No.	Chemical name	Weight percent
1310-73-2	Sodium hydroxide	10 - 20

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

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 difficul-

If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact

: Small amounts splashed into eyes can cause irraversible tis-

sue damage and blindness.

SDS Number: 100000038904

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CAUSTIC SODA 25%



Safety Data Sheet GAUSTIC SODA 28%

Version 1.2

Revision Date: 08/04/2020

In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice

Continue rinsing eyes during transport to hospital. Remove contact lenses.

Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

Take victim immediately to hospital.

If swellowed : Keep respiratory tract clear.

Do not induce varniting 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

Unsuitable extinguishing

: High volume water jet

Specific hazards during fire-

fighting

Do not allow run-off from the fighting to enter drains or water

Hazardous combustion prod-

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 nec-

ossary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- : Use personal protective equipment.

tive equipment and emer-

gency procedures

Environmental preceutions

Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and takes or drains inform

respective authorities

Methods and materials for

containment and cleaning up

Neutralisa with acid

Soak up with inert absorbent material (e.g. sand, silica gal,

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

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Safety Data Sheet CAUSIIC SODA 28%

Version 1,2

Revision Date: 06/04/2020

SECTION 7. HANDLING AND STORAGE

fire and explosion

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

Advice on safe handling

: Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national

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 B. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parame- tors / 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 PO

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

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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 concen-

tration 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

: liguid

Colour

: colorless

Odour

: ododess

Odour Threshold

: No data available

: 14 @ 20 - 25 °C (68 - 77 °F)

Freezing Point

: No data available

Bolting Point

: No data available

Flash point

No data available

Evaporation rate

: No data available

Flammability (solid, gas)

: No data available

Upper explosion limit

: No data available

Lower explosion (imit

: No data available

Vapour pressure

: No data avaitable

Relative vapour density

: No data avallable

Relative density

Water solubility

: 1.27 - 1.28Reference substance: (water = 1)

Density

: No data available

Solubility in other solvents

: No data available

Partition coefficient n-

: No data available : No data available

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Safety Data Sheet CAURTIC SODA 26%

Version 1.2

Revision Date: 08/04/2020

octanol/water

Auto-ignition temperature

: No data available

Thermal decomposition

: No data avaitable

SECTION 10. STABILITY AND REACTIVITY

Reactivity

: No decomposition if stored and applied as directed.

Chemical stability

: No decomposition if stored and applied as directed.

Possibility of hazardous reac- : No decomposition if stored and applied as directed.

: No data avaitable

Conditions to avoid incompatible materials

Acids

Halogenated compounds

Metels

organic nitro compounds

SECTION 11. TOXICOLOGICAL INFORMATION

Skin corrosion/initation

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.

Carchogenicity

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.

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

SD3 Number: 100000038904

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CAUSTIC SODA 25%



Safety Data Sheet GAUSTIC SODA 25%

Version 1.2

Revision Date: 06/04/2020

human carcinogen by IARC.

No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

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

NTP

OSHA

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.

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

Further Information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential

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

Substances

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

Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratespheric Ozone - CAA Section 602 Class I

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S.

8DS Number: 100000038904

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Safety Data Sheet EAVETIC SODA 24%

Version 1.2

Revision Date: 06/04/2020

Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information

: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Dispossi methods

Waste from residues

Contaminated packaging

: Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with chemi-

cal 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 Univer Solutions ChemCare: 1-800-908-4897

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, 11

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

IMDG (International Maritime Dangerous Goods): UN1824, SODIUM HYDROXIDE SOLUTION, 8, II

SECTION 15. REGULATORY INFORMATION

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

CERCLA Reportable Cu

OERIOCA ROPORTEDIO GUERR	aty			
Components	CAS-No.	Component RQ	Calculated product RQ	
<u> </u>		(fbs)	(Ibs)	
Sodium hydroxide	1310-73-2	1000	10000	

SARA 304 Extremely Hazardous Substances Reportable Quantity This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazarda

: Corrosive to metals

Skin corrosion or irritation

8DS Number: 100000038904 CAUSTIC SODA 25% 8/11



Safety Data Sheet CAUSTIC SODA 28%

Version 1.2

Revision Date: 06/04/2020

Serious eye damage or eye imitation

SARA 302

: This material does not contain any components with a section

302 FHS TPO

SARA 313

This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

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

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

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

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

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A: 1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3: 1310-73-2 Sodium hydroxide

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

Massachusetts Right To Know

1310-73-2

Sodium hydroxide

Pennsylvania Right To Know

California Prop 65

7732-18-5 1310-73-2

Sodium hydraxide

This product does not contain any chemicals known to State

of California to cause cancer, birth defects, or any other re-

productive 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

NZIcC : 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

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

5DS Number: 100000038904

CAUSTIC SODA BIN



Safety Data Sheet CAUSTIC SODA 25%

Version 1.2

Revision Date: 06/04/2020

SECTION16. OTHER INFORMATION

NFPA:



HMIS III:

HFA: TH	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

: 06/04/2020

Material number:

Material number: 61616982, 16137474, 16137324, 16152197, 16158393, 16162426, 16144481, 16147885, 16159715, 16143521, 16160487, 16160771, 16160572, 16160486, 16147888, 16147815, 16143784, 16147891, 16148872, 16144724, 16144461, 16148802, 16152705, 16145049, 16136108, 16135898, 16135793, 16135298, 16143511, 161443409, 1614372, 16143461, 16143389, 16142429, 16140624, 16142307, 16142009, 16141867, 16140353, 16141665, 16140988, 16140988, 16140375, 16140289, 16140999, 16141187, 1614500, 16145399, 16140966, 16140066, 16140704

ACGIH	gend to abbreviations and acronym	Lines	the salety data sheet	
	ment 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 Substanc- es 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 Chemi-	

SDS Number: 100000038904

10/11

CAUSTIC SODA 25%



Safety Data Sheet CAUSTIC SODA 25%

Version 1.2

Revision Date: 06/04/2020

EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenar- io Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chem- icals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commer- cial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery
>=	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 Composi- tion, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		7

SDS Number: 100000038904 11/11 CAUSTIC SODA 25%



Safety Data Sheet CAUGITE SODA 50%

Version 1.5

Revision Date: 12/11/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name CAUSTIC SODA 50% CAS Neme 1310-73-2 (50%)

Recommended use of the chemical and restrictions on use

Recommended use Determent

Industrial chemical

Manufacturer or supplier's details

Company Address

Univar Solutions USA, Inc. 3075 Highland Pkwy Suite 200

Downers Grove, IL 60515 United States of America (USA)

Emergency telephone number: Transport North America: CHEMTREC (1-800-424-8300) 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.universolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals

: Category 1

Skin corresion

: Catagory 1A

Serious eye damage

: Category 1

GHS label elements

Hazard pictograms



Signal word

Hazard statements

: H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Preceutionary statements

P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/

tace protection. Response:

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

induce vomiting.

803 Number: 100000010761

1/11

CAUSTIC SODA 50%



Safety Data Sheet CAUSTICS ODX BOX

Version 1.5

Revision Date: 12/11/2019

P303 + P381 + 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 cell a POISON CENTER/doctor

P383 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage. Storage: P405 Store tocked up.

P406 Store in corrosive resistant container with a resistant inner

liner.

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mbdure

Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
1310-73-2	Sodium hydroxide	50 - 70
Any Concentrat	ion shown as a range is due to batch variation.	30 - 70

SECTION 4. FIRST AID MEASURES

General edvice

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 difficul-

If on skin, rinse well with water. If on clothes, remove clothes.

: Small amounts splashed into eyes can cause irreversible tis-

sue damage and blindness.

In the case of contact with eyes, rinse immediately with plenty

SDS Number: 100000010751

in case of eye contact

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Safety Data Sheet CAUÉTIC SORA POX

Version 1.5

Revision Date: 12/11/2019

of water and seek medical advice.

Continue rinsing eyes during transport to hospital. Remove contact lenses.

Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

Take victim immediately to hospital

If swallowed

Keep respiratory tract clear. Do not induce vomiting without medical advice.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Unsuitable extinguishing media

: High volume water jet

Specific hazards during fire-

: Do not allow run-off from fire fighting to enter drains or water

Hazardous combustion prod- : No hazardous combustion products are known

ucts

Specific extinguishing meth-

: Fire residues and contaminated fire extinguishing water must

Further information

be disposed of in accordance with local regulations.

Wear self-contained breathing apparatus for firefighting if nec-

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Special protective equipment

for firefighters

essary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- : Use personal protective equipment. tive equipment and emer-

gency procedures

Environmental precautions

Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and takes or drains inform

respective authorities.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, sitica gel,

acid binder, universal binder, sawdust).

Keep in sultable, closed containers for disposal.

SD8 Number: 100000010751

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CAUSTIC SODA 50%



Safety Data Sheet CAUSTIC SODA SOX

Version 1.5

Revision Date: 12/11/2019

SECTION 7. HANDLING AND STORAGE

fire and explosion

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

Advice on safe handling

: Do not breathe vapours/dust. Avoid contact with skin and eyes.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Container may be opened only under exhaust ventilation

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

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	(Form of exposure)	Control parame- ters / 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 PO

Personal protective equipment

Respiratory protection

No personal respiratory protective equipment normally re-

In the case of vapour formation use a respirator with an ap-

proved filter,

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.

: Impervious clothing

Skin and body protection SDS Number: 100000010751

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Safety Data Sheet CAUSTIC SODA 50%

Version 1.5

Revision Date: 12/11/2019

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

Colour

: clear, opaque

Odour

: odoriess

Odour Threshold

: No data available

Freezing Point (Freezing

: 14 @ 20 °C (68 °F) : -32 - 15 °C (-26 - 59 °F)

Point)

Flash point

Boiling Point (Boiling

: 110 - 148 °C (230 - 298 °F)

point/boiling range)

: > 200 °C (> 392 °F)

Evaporation rate

: < 1.0

Flammability (solid, gas)

(Butyl Acetate = 1) : No data available

Upper explosion limit

: No data available

Lower explosion limit

: No data available

Vapour pressure

: 50 mmHg @ 20 °C (68 °F)

Relative vapour density

: < 1.0 @ 20 - 25 °C (68 - 77 °F)

Relative density

: 1.11 - 1.55 @ 20 °C (68 °F)

Reference substance: (water = 1)

Density

: 1.5298 g/cm3 @ 15.6 °C (59.9 °F)

Solubility(ies)

Water solubility

: No data available

Solubility in other solvents

: completely soluble

Partition coefficient n-

: No data available

octanol/water Auto-ignition temperature

: No data available

SDS Number: 100000010751

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CAUSTIC SODA 50%



Safety Data Sheet CAUSTIC SODA 50%

Version 1.5

Revision Date: 12/11/2019

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 reac-

: No hazards to be specially mentioned.

: Exposure to water vapour. Keep away from heat, flame, sparks and other ignition

Incompatible materials

Conditions to avoid

: Organic materials

Strong acids

Strong oxidizing agents metals subject to acid corrosion

Hazardous decomposition

: Sodium exides

products

Hydrogen

SECTION 11. TOXICOLOGICAL INFORMATION

Skin corresion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

Components: 1310-73-2:

Species: Rebbit

Rosult. Causes severe burns.

Serious eye damage/eye irritation

Remarks: May cause irreversible eye damage.

Components:

1310-73-2:

Species: Rabbit

Result: Risk of serious damage to eyes.

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Safety Data Sheet CAUSTIC SODA 86%

Version 1.5

Revision Date: 12/11/2019

Carcinogenicity

IAPC

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.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcino-

gen by ACGIH.

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data avallable

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 manufac-

tured 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).

SDS Number: 100000010751

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CAUSTIC SODA 50%



Safety Data Sheet CAUSTIC BOOM NO.

Revision Date: 12/11/2019

Additional ecological infor-

: 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 Uni-

var Solutions ChemCare: 1-800-909-4897

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, 11

IMDG (international Maritime Dangerous Goods): UN1824, SODIUM HYDROXIDE SOLUTION, 8, II, Flash Point> 200 °C(> 392 °F)

SECTION 15. REGULATORY INFORMATION

WHMIS Classification

: E: Corrosive Material

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

CERCLA Reportable Quantity

	product RQ
(lbs) (lbs)	
Sodium hydroxide 1310-73-2 1000 194	42

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 initation

Serious eye damage or eye irritation

SDS Number: 100000010751

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Safety Data Sheet CAUSTIC SODA 50%

Version 1.5

Revision Date: 12/11/2019

SARA 302

No chemicals in this material are subject to the reporting re-

quirements 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).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68 130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60 489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A: 1310-73-2 Sodium hydroxide

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

Sodium hydroxide

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

	1310-73-2	Sodium hydroxide	50 - 70 %
Pennsylva	nla Right To Know	,	
	7732-18-5	Water	50 - 70 %
	1310-73-2	Sodium hydroxide	50 - 70 %
New Jersey	Right To Know		
	7732-18-5	Water	50 - 70 %
	1310-73-2	Sodium hydroxide	50 - 70 %

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other re-

productive 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.

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

SDS Number: 100000010751 9/11 CAUSTIC SODA 50%



Safety Data Sheet CAUSTIC SODA 50%

Version 1.5

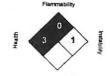
Revision Date: 12/11/2019

IECSC

: On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION

NFPA:



Special hazerr

HMIS III:



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

: 12/11/2019

Material number:

16160438, 16134981, 16141290, 16152709, 16141049, 16145955, 16143347, 16141315, 16141131, 16141316, 16141316, 1614081, 16140281, 16140281, 16140281, 16140280, 16140280, 16140280, 16140280, 1614081, 161

Key or k	gend to abbreviations and acronyn	ns used in	the safety data sheet
ACGIH	American Conference of Govern- ment Industrial Hygienists	LD50	Lethal Dose 50%
AICS		LOAEL	Lowest Observed Adverse Effect
DSL	Canada, Domestic Substances List	NEPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substanc-	NIOSH	National Institute for Occupations

SDS Number: 100000010751

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Safety Data Sheet CAUSTIC SON

Version 1.5

Revision Date: 12/11/2019

	es List		Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemi-
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenar- io Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oiffield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commer- cial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery
>=	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
ECSC	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 Composi- tion, Complex Reaction Products, and Biological Materials
CE	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		



Safety Data Sheet HYDROTATIONILIDIC ACID SOLUTION

Version 1.4

Revision Date: 05/24/2021

SECTION 1. PRODUCT AND COMPANY EDENTIFICATION

Product name

: HYDROFLUOSILICIC ACID SOLUTION

Recommended use of the chemical and restrictions on use

Recommended use : Industrial chemical

Manufacturer or supplier's details

Company Address

Univar Solutions USA, Inc. 3075 Highland Plowy Sulte 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@universolutions.com SDS Requests: 1-855-429-2661 Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals

: Category 1

Acute toxicity (Oral)

: Category 4

Acute toxicity (Dermai)

: Category 3

Skin corresion

: Category 1

Serious eye damage

: Category 1

GHS tabel elements

Hazard pictograms





Signal word

: Danger

Hazard statements

: H290 May be corresive to metals. H302 Hammul if swallowed. H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

Precautionary statements

P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

SDS Number: 199000035688

1/13 HYDROFLUGSILICIC ACID SOLUTION



Safety Data Sheet HYDROFIZIOSILICIC ACID SOLUTION

Version 1.4

Revision Date: 05/24/2021

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

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

Induce vorniting. 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.

P362 Take off contaminated clothing and wash before reuse. P390 Absorb spillage to prevent material damage.

Storage:

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

None known

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mbdure

Hazardous components

CAS-No.	Chemical name	Weight percent
16961-83-4	Fluorosfiicic Acid	20 - 25
7664-39-3	Hydroftuoric scid	0.1 - 1

Actual concentration is withheld as a trade secret

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

: HFS; Fluorositicic Acid; Hydrofluorosilicic Acid,

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. Symptoms of poisoning may appear several hours later.

Do not leave the victim unattended.

If inhaled

: If unconscious, place in recovery position and seek medical

SDS Number: 100900039638

2/13 HYDROFLUGSELCIC ACID SOLUTION



Safety Data Sheet INTROPLUOSILISIO ACID BOLLITION

Version 1.4

Revision Date: 05/24/2021

advica

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 difficul-

Take victim immediately to hospital. If on skin, rinse well with water. If on ciothes, remove ciothes.

In case of eye contact

: Small amounts splashed into eyes can cause irreversible tis-

sue 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.

Small amounts splashed into eyes can cause irreversible tis-sue 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 initiation persists, consult a specialist.

If swallowed

: Keep respiratory tract clear. Do NOT induce ventiting.

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 : Carbon dioxide (CO2)

Form

Dry powder Water mist

Unsuitable extinguishing

: High volume water jet

Specific hazards during fire-

Bahtina

Do not allow run-off from fire lighting to enter drains or water

courses.

Hazardous combustion prod- : No hazardous combustion products are known

SD9 Number: 100000039688

3 / 12 HYDROFLUOSILICIC ACID SOLUTION



Safety Data Sheet HYDROPLIGRESCO ACID SOLUTION

Version 1.4

Revision Date: 05/24/2021

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 nec-

essary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment.

tive equipment and emergency procedures

Environmental precautions

Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and takes or drains inform

respective authorities.

Methods and materials for containment and cleaning up : Neutralize with chelk, 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

fire and explosion

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

Advice on safe handling

Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication 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

: Prevent unauthorized access.

Keep container tightly closed in a dry and well-ventilated

Containers which are opened must be carefully resealed and kept upright to provent leakage.

Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

Materials to avoid

: Do not store near acids.

SDS Number: 100000630483

4/13 HYDROFLUGSILICIC ACID SOLUTION



Safety Data Sheet HYDROFIAICHEACHD SOLUTION

Version 1.4 Revision Date: 05/24/2021

SECTION 8, EXPOSURE CONTROL S/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
7664-39-3	Hydrofluoric scid	TWA	0.5 ppm (Fluorine)	ACGIH
		C	2 ppm (Fluorine)	ACGIH
		TWA	3 ppm 2.5 mg/m3	NIOSH REL
		С	6 ppm 5 mg/m3	NIOSH REL
		TWA	3 ppm	OSHA Z-2
		TWA	3 ppm (Filuorine)	OSHA PO
		STEL	6 ppm (Fluorine)	OSHA PO

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, expo-sure 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.

Eve protection

: Eye wash bottle with pure wate

Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection

impervious ciething

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

Hygiene measures

Avoid contact with skin, eyes and clothing.

When using do not eat or drink.

When using do not smake. Wash hands before breaks and immediately after handling the

product.

803 Number: 100000039888

6/13 HYDROFLUGSILICIC ACID SOLUTION



Safety Data Sheet HYDROFLUGSEECHCACID SOLUTION

Version 1.4

Revision Date: 05/24/2021

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

: Equid

Colour

: Clear, Colorless, Straw color

Odour

: pungent

Odour Threshold

: No data available

рΗ

: 1-2

Freezing Point (Melting point/freezing point)

: -20 °C (-4 °F)

Boiling Point (Initial boiling point and boiling range)

: 136 - 163 °C (277 - 325 °F)

Flash point

: does not flash

Evaporation rate

: No data available

Flammability (solid, gas)

: No data available

Upper explosion limit

Lower explosion limit

: No data available

Vapour pressure

: No data available

: No data available

Relative vapour density

: No data available

Relative density

: 1.2 @ 25 °C (77 °F)

Reference substance: (water = 1)

6/13 HYDROFLUGSLICIC ACID SOLUTION.

Density

: 10.17 lb/gat

Solubility(ics) Water solubility

· Miscible

Solubility in other solvents

: No data available

Partition coefficient: n-

octanol/water

: No data available

Auto-ignition temperature

: No data avallable

Thermal decomposition

SDS Number: 190000038883

: No data available

Univar Solutions

Safety Data Sheet HYDROFEUGRILLICIO ACID SOLUTION

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SECTION 10. STABILITY AND REACTIVITY

Reactivity

: No dangerous reaction known under conditions of normal use.

No decomposition if stored and applied as directed.

Chemical stability

: Stable under normal conditions.

No decomposition if stored and applied as directed.

Possibility of hazardous reac-

: No decomposition if stored and applied as directed.

: Keep away from heat, flame, sparks and other ignition Conditions to avoid

sources.

No data available

Incompatible materials

Strong oxidizing agents

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity

: Acute toxicity estimate: 500.1 mg/kg

Acute inhalation toxicity

: Acute toxicity estimate: 50.01 mg/l Exposure time: 4 h

Test atmosphere: vapour

Acute dermal toxicity

: Acute toxicity estimate: 500.05 mg/kg

Components:

7664-39-3:

Acute oral toxicity

: Assessment: The component/mixture is highly toxic after sin-

gle ingestion. Remarks: No data available

Acute inhalation toxicity

: LC50 (Rat): 1610 ppm

Assessment: The component/mbdure is highly toxic after short

term inhalation.

Acute dermal toxicity

: Assessment: The component/mixture is extremely toxic after

single contact with skin.

Remarks: No data available

505 Number: 100600030656

7 / 13 HYDROFLUGSLICIC ACID SOLUTION



Safety Data Sheet HYDROFELIOSIDICIC ACID SOLUTION

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Ravision Date: 05/24/2021

Skin corresion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

Components:

16961-83-4:

Species: Rat

Result: Causes burns.

7664-39-3:

Species: Rabbit

Result: Causes severe burns.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Components:

7664-39-3:

Species: Rebbit

Result: Risk of serious damage to eyes.

Germ cell mutagenicity

Components:

7664-39-3:

Genotoxicity in vitro

: Test Type: Ames test

Species: Satmonella typhimurium

Result: negative

Genotoxicity in vivo

: Test Type: In vivo micronucleus test

Species: Mouse Result: negative

Garm cell mutagenicity -**Assessment**

: Tests on becterial or mammalian cell cultures did not show

mutagenic effects.

Carcinogenicity

Components:

7664-39-3:

Species: Rat

NOAEL: 25 mg/kg bw/day

Carcinogenicity - Assess-

: Not classifiable as a human carcinogen.

LARC

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

SDS Number: 100000039688

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Safety Data Sheet HYDROFT LICELISIC ACID SOCUTIONS

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human carchogen 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 texicity

Components:

7664-39-3: Reproductive toxicity - As-

Fertility classification not possible from current data.

Teratogenicity - Assessment : Embryotoxicity classification not possible from current data.

Further Information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

7664-39-3:

Toxicity to fish : Remarks: No data available

Toxicity to dephnia and other

: EC50 (Daphnia magna (Water flea)): 97 mg/l

aquatic invertebrates

Exposure time: 48 h

Toxicity to algae

: Remarks: No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil No data available

Other adverse effects

Product:

SDS Namber: 100000030688 0 / 13 HYDROFLUGSILICIC ACID SOLUTION

802 Number: \$00000088

10 \ 13 HADISOTTHOSETICIC WCED SOTTHAN

	2000	0-10-7487	Hydrochloric sold
10001	100	7664-39-3	Hydroftundic acid
Osh budonq betakualeO (sdt)	OSI tnenoqmoO (adi)	CV8-NO.	Sinanoqino

CERCLA Reportable Quantity

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

SECTION 15. REGULATORY INFORMATION

II, 8 , GIDA DIDILIGOROULA 8, TINU IMDG (international Maritime Dangerous Goods):

UN1778, Fluorosilicic acid, 8, II IATA (International Air Transport Association):

> UN1778, Fluorosilicic scid, 8, 11 DOT (Dopartment of Transportation):

> > Contaminated packaging

SECTION 14. TRANSPORT INFORMATION

Do not re-use empty containers.

Cispose of as unused product.

Empty remaining contents.

Send to a licensed waste management company.

cal or used container,

Do not contaminate ponds, waterways or ditches with chemi-Do not dispose of weste into sewer.

disposal, recycling and waste stream reduction, contact Univer Solutions ChemCare: 1-800-637-7922 For essistance with your weste menagement needs - including

enotatugen lerebet

Dispose of in accordance with all applicable local, state and

soublesn mont stasky Shortsen issociald

SECTION 13. DISPOSAL CONSIDERATIONS

Additional acological infor-

eldsileve eteb on :

Clean Air Act Section 602 (40 CFR 62, Subpl. A, App.A + B). tured with a Class I or Class II ODS as defined by the U.S. Remarks: This product neither contains, nor was manufac-Substances

tection of Stretospheric Ozone - CAA Section 602 Class 1 : Regulation: 40 CFR Protection of Environment, Part 62 Pro-

Seitneto9 nobelqeG-enosO

P. P. notateV

Revision Date: 05/24/2021

HYDROFILE BLANCE GOLDHON Safety Data Sheet



888629000001 medmuN EGB

productive name.

of California to cause cancer, birth defacts, or any other re-: This product does not contain any chemicals known to State **California Prop 65**

Hydrofluoric acid E-6E-1994 Hydrochtonic acid 0-10-7497 Fluorosilicic Acid 1-68-18681 3-81-SETT

won's of trigits sinsvivenned

Hydrofluoric acid E-6E-1994 Hydrochloric acid 0-10-7487 Fluorosificio Acid 16961-83-4

Massachusetta Right To Know

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

Hydrothonic acid Hydrochloric acto 0-10-7487

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 111.3: Hydroffuoric acid

Hydrochloric acid 0-10-7487

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116,4A;

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

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

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

Clean Air Act

reporting levels established by SARA Title III, Section 313.

44 \ 42 HUDBOLFROSITICIS VOID SOFILION

(climiniM eG) blorizerati erti becoxe trati snedmun 2AO riwons This material does not contain any chemical components with ERE ARAS

305 EH2 LLO"

1 Lyis matsus ques not contain anà comboneura with a section SARA 302

Skin corrosion or initation Serious eye damage or eye initation

Acute toxicity (any route of exposure)

: Corrosive to metals SAN 311/312 Hazards

*: Calculated RQ exceeds reasonably attainable upper limit.

	000G	0-10-7487	Hydrochloric scid
10001	001	E-6E-489.Y	Hydroftuoric acid
(sqt)	(sq)		
Calculated product RQ	Component RQ	CAS-No.	Components

SARA 304 Extremely Hazardous Substances Reportable Quantity

": Calculated RQ exceeds reasonably attainable upper limit.

Revision Date: 05/24/2021 A.f nolsteV NODITIOS GENERALITIES CONTROLLED ROST TO A CONTROLL



Safety Data Sheet

Solutions



Safety Data Sheet HYDROFLUOSILICIC ACID SOLUTION

Revision Date: 05/24/2021

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

SECTION16. OTHER INFORMATION





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

: 05/24/2021

16170213, 16169394, 16171091, 16145665, 16144609, 16151122, 16148601, 16159674, 16166531, 16141271, 16148010, 16150746, 16145666, 16143932, 16147890, 16140484

SDS Number: 100000039888 12 / 13 HYDROFLUGSILICIC ACID SOLUTION



Safety Data Sheet HYDROFLUOSILICIC ACID SOLUTION

Version 1.4

Revision Date: 05/24/2021

ACGIH	agend to abbreviations and acronyn American Conference of Govern- ment 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 Substanc- es 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 Chemi- cals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenar- io Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chem- icals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commer- cial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery
>=	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 Composi- tion, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
_C50	Lethal Concentration 50%		

SDS Number: 100000039888 13 / 13 HYDROFLUGSILICIC ACID SOLUTION

Listing Category Search Page | NSF International



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of Friday, September 24, 2021 at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

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http://info.nsf.org/Certified/PwsChemicals/Listings.asp?

CompanyName=Univar+Solutions+USA+Inc&ChemicalName=Sodium+Hydroxide&PlantState=Ohio+OH& PlantCountry=UNITED+STATES&

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

Univar Solutions USA Inc. DBA Univar USA Inc. 3075 Highland Parkway Suite 200 Downers Grove, IL 60515 **United States** 425-889-3400

Facility: # 2 Distribution Center - Toledo, OH

Sodium Hydroxide

Trade Designation Caustic Soda 50%

Sodium Hydroxide 50%

Product Function Corrosion Control Max Use

pH Adjustment

Corrosion Control

100mg/L

100mg/L

pH Adjustment

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

https://mfo.nst.org/Certifled/PwsChemicats/Listings.asp?CompanyName=Univar+Solutions+USA+ino8TradeName=&ChemicatName=Sodium+Hydroot... 1/2

9/24/21, 12:07 PM

Listing Category Search Page | NSF International

Facility: Distribution Center - Cincinnati, OH

Sodium Hydroxide

Trade Designation

Product Punction

Max Use

Caustic Soda 50%

Corrosion & Scale Control

100mg/L

Sodium Hydroxide 50%

pH Adjustment Corrosion & Scale Control

100mg/L

pH Adjustment

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility: Distribution Center - Walbridge, OH

Sodium Hydroxide

Trade Designation

Product Function

Max Use

Caustic Soda 25%

Corrosion & Scale Control pH Adjustment

200mg/L

Caustic Soda 50%

Corrosion & Scale Control

100mg/L

Sodium Hydroxide 25%

pH Adjustment Corrosion & Scale Control

pH Adjustment

Sodium Hydroxide 50%

Corrosion & Scale Control pH Adjustment

200mg/L 100mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Number of matching Manufacturers is a Number of matching Products is 8 Processing time was o seconds

https://mio.nsi.org/Certifled/PwsChemicals/Listings.asp?CompanyName=Univer+Solutions+USA+Inc&TradeName=&Chemicalklame=Sodum+Hydruxi... 2/2



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Thursday**, **July 16**, **2020** at 12:15 a.m. Eastern Time. Please <u>contact NSF</u> to confirm the status of any Listing, report errors, or make suggestions.

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CompanyName=NUTRIEN&ChemicalName=Hydrofluosilicic+Acid&

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

PCS Sales DBA Nutrien 1101 Skokie Boulevard, Suite 400 P.O. Box 3320 Northbrook, IL 60062 United States 847-849-4301

Facility: Aurora, NC

Fluosilicic Acid

Trade Designation

Fluosilicic Acid

Product FunctionFluoridation

Max Use 6mg/L

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

1-Y 2-Y 3-Y DUNS NO.:102971785 EIN :911347935 NAICS: 424690 Other Chemical Products Merchant Wholesalers EQUAL EMPLOYMENT OPPORTLINITY
2018 EMPLOYER INFORMATION REPORT
INDIVIDUAL ESTABLISHMENT REPORT - TYPE 4 UNIVAR USA - CINCINNATI 4800 DUES DR UNIVAR USA - DOWNERS GROVE 3075 HIGHLAND PKWY STE 200 DOWNERS GROVE, IL 60515 9259063 B374570

SECTION F - REMAI

into.nsf.org/Certified/PwsChemicats/Listings.asp?CompanyName=NUTRIEN&TradeName=&ChemicalName=Hydrofluositicic+Acid&ProductFunction=.