

**RESOLUTION NO. 2020-75**

Introduced by: Joel Hagy

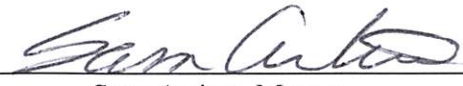
**A RESOLUTION AUTHORIZING THE CITY MANAGER TO AWARD THE BID AND AUTHORIZE THE EXPENDITURE OF FUNDS FOR THE PURCHASE OF WATER TREATMENT CHEMICALS TO THATCHER COMPANY OF NEW YORK, INC. IN AN AMOUNT NOT TO EXCEED TWELVE THOUSAND FIVE HUNDRED TWENTY AND 00/100 DOLLARS (\$12,520.00)**

**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 8 Tons of Powdered Activated Carbon to Thatcher Company of New York, Inc. in an amount not to exceed Twelve Thousand Five Hundred Twenty and 00/100 dollars (\$12,520.00), 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.

  
\_\_\_\_\_  
Sam Artino, Mayor

ATTEST:   
Clerk of Council

ADOPTED: 27 OCT 2020



BIDDER'S NAME:

Thatcher Company of New York, Inc.

Authorized Signature:

By:



Print Name of Authorized Signatory:

Craig N. Thatcher

Title:

President

Participant Name (If different from Bidder):

Company Name:

Thatcher Company of New York, Inc.

Mailing Address:

P. O. Box 27407

Salt Lake City, UT 84127-0407

Telephone Number:

(315) 589-9330

Facsimile Number:

(315) 589-9835

E-Mail Address:

wendy.richmond@tchem.com;  
steve.horrocks@tchem.com

Where Incorporated:

New York

Federal Tax Identification Number:

06-1289349

Contact Person for Contract processing:

Craig N. Thatcher

ADDITIONAL SIGNATURE FOR JOINT VENTURE

Authorized Signature:

By:

Print Name of Authorized Signature:

Title:

Participant Name:

Mailing Address:

Telephone Number:

Facsimile Number:

**E-Mail Address:**

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**Where Incorporated:**

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**Federal Tax Identification Number:**

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**Contact Person for Contract processing:**

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**CITY OF SANDUSKY, HURON AND ERIE COUNTY  
CHEMICALS FOR CALENDAR YEAR 2021**

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ITEM NO.	CHEMICAL DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST
1	Liquid Sodium Permanganate (NaMnO <sub>4</sub> )	12,000 Gallons More or Less	\$ 6.416/gal. (FTL) * \$ 7.140/gal. (LTL) **	\$ 76,992.00 (FTL) \$ 85,680.00 (LTL)
2	Hydrofluosilicic Acid (H <sub>2</sub> SiF <sub>6</sub> )	17,000 Gallons More or Less	\$ No Bid	\$ Not Applicable
3	Sodium Hydroxide Liquid (NaOH)	50,000 Gallons More or Less	\$ No Bid	\$ Not Applicable
4	Sodium Hypochlorite (NaOCl)	90,000 Gallons More or Less	\$ No Bid	\$ Not Applicable
5	Aluminum Sulfate Polymer Blend - Liquid (Type One) (AL <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> )	101,250 Gallons More or Less/ Wet Tons 550	\$ No Bid	\$ Not Applicable
6	Powdered Activated Carbon (PAC)	123,000 Pounds More or Less	\$ No Bid	\$ Not Applicable
7	Ferrous Chloride Solution (FeCl <sub>2</sub> )	350,000 Pounds More or Less Dry Weight \$/dry lbs of Fe	\$ No Bid	\$ Not Applicable
8	Polymer - Liquid	60,000 Pounds More or Less	\$ No Bid	\$ Not Applicable
9	Ferrous Chloride Solution (FeCl <sub>2</sub> )	25,000 Gallons More or Less	\$ No Bid	\$ Not Applicable
10	Sodium Aluminate - Liquid	16,000 Gallons More or Less in bulk loads and/or 300 gallon totes	\$ 2.5945/gal. (Bulk)* \$ 3.7900/gal. (243GTote)***	\$ 41,512.00 (Bulk) \$ 60,640.00 (243GTote)
11	Sodium Bisulfite Solution (Reducite)	7,000 Gallons in 300 Gallon Totes 900 Gallons in 15 Gallon Drums More or Less	\$ No Bid	\$ Not Applicable
12	Sodium Hypochlorite (NaOCl)	15,000 Gallons in 300 Gallon Totes 2,700 Gallons in 50 Gallon Drums 2,600 Gallons in 15 Gallon Drums More or Less	\$ No Bid	\$ Not Applicable
13	Polymer - Liquid	10,000 Pounds more or less in 2,300 Pound Totes	\$ No Bid	\$ Not Applicable
14	Liquid Chlorine (Cl <sub>2</sub> )	24,000 Pounds More or Less \$/lbs Deposit fee per 150 lb. cyclinder, if applicable	\$ No Bid	\$ Not Applicable
15	Powdered Activated Carbon (PAC)	8 Tons More or Less	\$ 1,565.00/ton ****	\$ 12,520.00

\* Minimum Order Quantity: 4,000 gals. Lead Time: 3 to 5 days ARO.  
\*\* Minimum Order Quantity: 2,000 gals. Lead Time: 3 to 5 days ARO.

\*\*\* Minimum Order Quantity: 729 gals. (3 totes) Lead Time: 3 to 5 days ARO.  
\*\*\*\* Minimum Order Quantity: 8,000 lbs. Lead Time 7 to 10 days ARO.

Updated 9/22/2020

CITY-BF-2

**CITY OF SANDUSKY, HURON AND ERIE COUNTY  
CHEMICALS FOR CALENDAR YEAR 2021**

**HURON**

**VERMILION**

16	Sodium Hydroxide Liquid (NaOH)	12,000 Gallons More or Less	\$ No Bid	\$ Not Applicable
17	Aluminum Chlorhydrate Polymer Blend - Liquid (Al <sub>2</sub> (OH) <sub>5</sub> Cl)	16,000 Gallons More or less	\$ No Bid	\$ Not Applicable
18	Hydrofluosilicic Acid (H <sub>2</sub> SiF <sub>6</sub> )	4,000 Gallons More or Less	\$ No Bid	\$ Not Applicable
19	Liquid Sodium Permanganate (NaMnO <sub>4</sub> )	4,000 Gallons More or Less	\$ No Bid	\$ Not Applicable
20	Chlorine (Cl <sub>2</sub> )	24,000 Pounds More or Less	\$ No Bid	\$ Not Applicable
21	Liquid Caustic Soda - 50% NaOH	4,000 Gallons More or Less.	\$ No Bid	\$ Not Applicable
22	Hydrofluosilicic Acid - 25%	18,000 Pounds More or Less	\$ No Bid	\$ Not Applicable
23	Polyaluminum Chloride Solution	250,000 Pounds More or Less	\$ No Bid	\$ Not Applicable
24	Liquid Ferrous Chloride	40,000 Gallons More or Less	\$ No Bid	\$ Not Applicable
25	Clarifloc CE-1593 Polymer	10 (275 gallon) Totes More or Less	\$ No Bid	\$ Not Applicable
26	Sodium Hypochlorite (NaOCl)	17 (300 gallon) Totes More or Less	\$ No Bid	\$ Not Applicable
27	Sodium Bisulfite Solution	15 (300 gallon) Totes More or Less	\$ No Bid	\$ Not Applicable
Total Amount of Bid:				\$ 158,840.00
Bidder Name: Thatcher Company of New York, Inc.				
Bidder Address: P. O. Box 27407, Salt Lake City, UT 84127-0407				
Telephone Number: (315) 589-9330				
Fax Number: (315) 589-9835 Email Address: wendy.richmond@tchem.com; steve.horrocks@tchem.com				
Date: October 6, 2020				

Do not leave any boxes blank. If not bidding an item, state in cost box.  
See specifications for exact details

**NOTE**

**Appendices A and B form part of our proposal.**

**THATCHER COMPANY OF NEW YORK, INC.**  
P. O. Box 118, Williamson, NY 14589

Phone (315) 589-9330  
Fax (315) 589-9835



PROJECT NAME: CHEMICALS FOR THE CALENDAR YEAR 2021  
CONTRACT NUMBER: \_\_\_\_\_


PERSONAL PROPERTY TAX  
CERTIFICATION  
REQUIRED BY OHIO REVISED CODE  
SECTION 5719.042

FINANCE DIRECTOR  
CITY OF SANDUSKY

**THATCHER COMPANY OF NEW YORK, INC.**  
BIDDER'S NAME

STATE OF UTAH                    )  
  §  
COUNTY OF SALT LAKE        )

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.

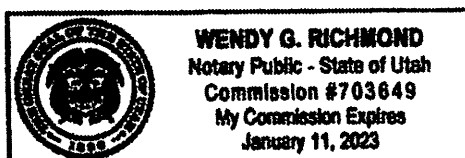
  
\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
CRAIG N. THATCHER  
NAME PRINTED

\_\_\_\_\_  
PRESIDENT  
TITLE

STATE OF UTAH                    )  
  §  
COUNTY OF SALT LAKE        )

SWORN TO BEFORE ME AND SUBSCRIBED IN MY PRESENCE THIS 6TH DAY  
OF OCTOBER, 2020.



  
\_\_\_\_\_  
WENDY G. RICHMOND, NOTARY PUBLIC

**THATCHER COMPANY OF NEW YORK, INC.**  
P. O. Box 118, Williamson, NY 14589

Phone (315) 589-9330  
Fax (315) 589-9835



**CITY OF SANDUSKY  
BIDDER'S AFFIDAVIT**

PROJECT NAME: CHEMICALS FOR THE CALENDAR YEAR 2021  
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

**THATCHER COMPANY OF NEW YORK, INC.**  
BIDDER'S NAME

STATE OF UTAH                     )  
  ) §  
COUNTY OF SALT LAKE        )

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

1. The undersigned is duly authorized to make the statements herein on behalf of the Bidder.

2. 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~~

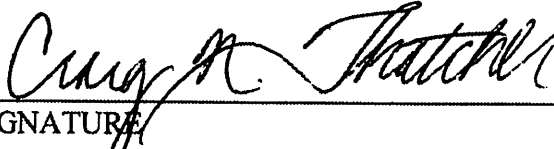
- ~~a. the subject of the Contract is necessary supplies or services for the City of Sandusky;~~
- ~~b. the supplies or services are unobtainable elsewhere for the same or lower cost, or are being furnished to the City of Sandusky as part of a continuing course of dealing established prior to the Related Person becoming a City official or employee;~~

- ~~e. 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;~~  
~~d. the entire transaction resulting in the Contract has been conducted at arms-length, 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.~~

5. The Bidder is a/an (select one):

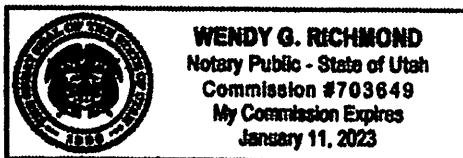
- ☐ Individual, partnership, or other unincorporated business association (including a professional association organized under Ohio Revised Code Chapter 1785), estate, or trust.  
☒ Corporation organized and existing under the laws of the State of New York.  
☐ Labor organization.

6. The undersigned hereby affirms that the Bidder and each of the individuals specified in Section 3517.13(I)(3), ORC, (with respect to non-corporate entities and labor organizations) or Section 3517.13(J)(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.

  
\_\_\_\_\_  
SIGNATURE  
  
\_\_\_\_\_  
CRAIG N. THATCHER  
NAME PRINTED  
  
\_\_\_\_\_  
PRESIDENT  
TITLE

STATE OF UTAH                    )  
  ) §  
COUNTY OF SALT LAKE    )

Sworn to before me and subscribed in my presence this 6th day of October, 2020.



  
\_\_\_\_\_  
WENDY G. RICHMOND, NOTARY PUBLIC



**CITY OF SANDUSKY  
BIDDER'S AFFIDAVIT  
EXHIBIT A**

Project Name: Chemicals for the Calendar Year 2021

Contract: Chemicals for the Calendar Year 2021

Bidder's Name: Thatcher Company of New York, Inc.

Related official/public employee:

Name: N/A

Title/Position: N/A

Relation to Bidder: N/A

**THATCHER COMPANY OF NEW YORK, INC.**  
P. O. Box 118, Williamson, NY 14589



Phone (315) 589-9330  
Fax (315) 589-9835

**CITY OF SANDUSKY  
BIDDER'S AFFIDAVIT #2**

PROJECT NAME: CHEMICALS FOR THE CALENDAR YEAR 2021

LOBBYING AND CAMPAIGN  
FINANCING CERTIFICATION

DIRECTOR OF ENGINEERING SERVICES  
CITY OF SANDUSKY

**THATCHER COMPANY OF NEW YORK, INC.**  
BIDDER'S NAME

STATE OF UTAH                    )  
  §  
COUNTY OF SALT LAKE    )

The undersigned hereby certifies as follows:

1. 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 (J)(3) (with respect to corporations) are in full compliance with divisions (I)(1) and (J)(I) of the Ohio Revised Code Section 3517.13.

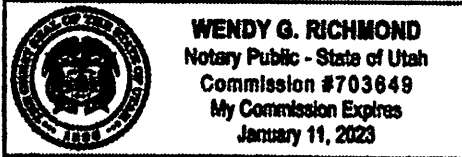
  
\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
CRAIG N. THATCHER  
NAME PRINTED

\_\_\_\_\_  
PRESIDENT  
TITLE

STATE OF UTAH                     )  
  ) §  
COUNTY OF SALT LAKE    )

SWORN TO BEFORE ME AND SUBSCRIBED IN MY PRESENCE THIS 6<sup>TH</sup> DAY  
OF OCTOBER, 2020.



*Wendy G. Richmond*  
\_\_\_\_\_  
WENDY G. RICHMOND, NOTARY PUBLIC

**CITY OF SANDUSKY  
NON-COLLUSION AFFIDAVIT**

STATE OF UTAH }  
COUNTY OF SALT LAKE } ss:

The undersigned hereby certifies as follows:

- (1) The bid to the City of Sandusky, Ohio, submitted by the Bidder on October 6, 2020 in accordance with the Contract Documents dated September 21, 2020 (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: October 6, 2020

Thatcher Company of New York, Inc.  
(Name of Bidder)

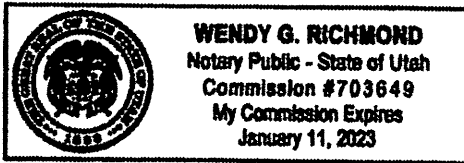
By: 

Signature of person authorized to bind  
the Bidder CRAIG N. THATCHER

STATE OF UTAH )  
COUNTY OF SALT LAKE ) ss

SWORN TO BEFORE ME AND SUBSCRIBED IN MY PRESENCE THIS 6th DAY OF October, 2020.

(seal)



Wendy G. Richmond  
Notary Public WENDY G. RICHMOND

**CITY OF SANDUSKY  
BID GUARANTY AND CONTRACT BOND**

(Section 153.571, Ohio Revised Code)

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

Thatcher Company of New York, Inc., P. O. Box 27407, Salt Lake City, UT 84127-0407,  
(Name and Address)

as Principal, and Fidelity and Deposit Company of Maryland,  
(Name of Surety)

as Surety, are hereby held and firmly bound unto the City of Sandusky, Ohio, as Oblige, in the  
penal sum of the dollar amount of the bid submitted by the Principal to the Oblige on  
October 13, 2020, to undertake the Project known as:

Chemicals for the Calendar Year 2021

The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Oblige, incorporating any additive Alternate bids proposals made by the Principal on the date referred to above to the Oblige, which are accepted by the Oblige. In no case shall the penal sum exceed the amount of \_\_\_\_\_ Dollars (\$\_\_\_\_\_). (If the 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 above-named Principal has submitted a bid for the above-referenced Project;

NOW, THEREFORE, if the Oblige 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 Oblige 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 Oblige may in good faith contract with the Bidder determined by the Oblige to be the next lowest and best Bidder to perform the Work covered by the bid; or in the event the Oblige does not award the Contract to such next lowest and best Bidder and resubmits the Contract for bidding, the Principal pays to the Oblige 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


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.

SIGNED This 13th day of October, 20 20.

PRINCIPAL: Thatcher Company of New York, Inc.

BY: 

Craig M. Thatcher

TITLE: President

SURETY: Fidelity and Deposit Company of Maryland

SURETY ADDRESS:

1299 Zurich Way.  
Street

Schaumburg, IL 60196  
City State Zip

( ) 800.382.2150  
Telephone Number

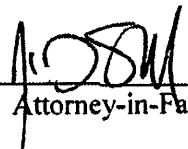
SURETY AGENT'S ADDRESS:

Gallagher  
Agency Name

6967 S. River Gate Dr. #200  
Street

Salt Lake City, UT 84047  
City State Zip

( ) 801.924.1400  
Telephone Number

BY:   
Attorney-in-Fact



**ZURICH AMERICAN INSURANCE COMPANY  
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY  
FIDELITY AND DEPOSIT COMPANY OF MARYLAND  
POWER OF ATTORNEY**


KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by **Robert D. Murray**,

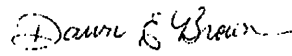
Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint, **Michael WADE, Janis HORMAN, John SCHLICHTE, Christopher HUGHES**, of Salt Lake City, Utah, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York, the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland, and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland, in their own proper persons. The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 20th day of August, A.D. 2020.



**ATTEST:**  
ZURICH AMERICAN INSURANCE COMPANY  
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY  
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

  
\_\_\_\_\_  
By: **Robert D. Murray**  
Vice President

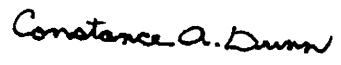
  
\_\_\_\_\_  
By: **Dawn E. Brown**  
Secretary

**State of Maryland  
County of Baltimore**

On this 20th day of August, A.D. 2020, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



  
\_\_\_\_\_  
Constance A. Dunn, Notary Public  
My Commission Expires: July 9, 2023

## EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

### CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereto subscribed my name and affixed the corporate seals of the said Companies, this 13th day of October, 2020.



Brian M. Hodges, Vice President

**TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:**

Zurich Surety Claims  
1299 Zurich Way  
Schaumburg, IL 60196-1056  
[www.reportsfcliams@zurichna.com](mailto:www.reportsfcliams@zurichna.com)  
800-626-4577

**CERTIFICATION**  
**DRUG-FREE WORKPLACE**

The applicant certifies it will provide a drug-free workplace by:

- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition.
- b. Establishing an on-going drug-free awareness program to inform employees about:
  1. the dangers of drug abuse in the workplace;
  2. the grantee's policy of maintaining a drug-free workplace;
  3. any available drug counseling, rehabilitation and employee assistance programs; and
  4. the penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- c. Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph a;
- d. Notifying the employee in the statement required by paragraph a., as a condition of employment under the grant, the employee will;
  1. abide by the terms of the statement; and
  2. notify the employer of any criminal drug statute conviction for the violation occurring in the workplace no later than five (5) days after such conviction;
- e. Notifying HUD within ten (10) days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction.
- f. Taking one of the following actions, within 30 days of receiving notice under subparagraph (d)(2), with respect to any employee who is convicted;
  1. taking appropriate personnel action against such an employee, up to and including termination; or
  2. requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, State or local health, law enforcement or other appropriate agency;
- g. Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) through (f) above.

  
Name, Title CRAIG N. THATCHER, PRESIDENT  
Business Name Thatcher Company of New York, Inc.

October 6, 2020

Date



# FDPH.MH17003 - Drinking Water Treatment Chemicals

## Drinking Water Treatment Chemicals

See General Information for Drinking Water Treatment Chemicals

### THATCHER GROUP, INC.

1905 FORTUNE RD

PO BOX 27407

SALT LAKE CITY, UT 84127-0407 USA

MH17003

### NSF/ANSI 60

Plant at: Thatcher Company of New York, Inc., Williamson, NY

Trade Dsg	Conditions of Acceptability	Category	Max Use Level (mg/L)
Aluminum Sulfate [*Al]	[Al]	Coagulation and Flocculation Chemicals	150
Compliance GT [*Al]	[Al]	Coagulation and Flocculation Chemicals	43
Poly Phosphate Ortho Phosphate Blends	-	Coagulation and Flocculation Chemicals	26
Sodium Aluminate [*Al]	-	Coagulation and Flocculation Chemicals	43
Compliance GT	-	Coagulation and Flocculation	43
Zinc Orthophosphate [*Zn]	-	Corrosion and Scale Control	16.5
Soda Ash	-	pH Adjustment	100
Citric Acid Solution	-	Corrosion and Scale Control, Softening, Sequestering, Precipitation and pH adjustment	125
Citric Acid Solution [*OL]	-	Corrosion and Scale Control, Softening, Sequestering, Precipitation and pH adjustment	N/A
Sodium Permanganate, 11% - 15% [*Mn]	-	Disinfection and Oxidation	298
Sodium Permanganate, 16% - 20% [*Mn]	-	Disinfection and Oxidation	224

Sodium Permanganate, 21% - 25% [*Mn]	-	Disinfection and Oxidation	179
Sodium Permanganate, 26% - 30% [*Mn]	-	Disinfection and Oxidation	149
Sodium Permanganate, 31% - 35% [*Mn]	-	Disinfection and Oxidation	128
Sodium Permanganate, 36% - 39% [*Mn]	-	Disinfection and Oxidation	115
Sodium Permanganate, 5% - 10% [*Mn]	-	Disinfection and Oxidation	448
Ammonium Sulfate, 40%	-	Disinfection and Oxidation	62.5
Hydrogen Peroxide 11%-20%	-	Disinfection and Oxidation Chemicals	40
Hydrogen Peroxide 21%-30%	-	Disinfection and Oxidation Chemicals	26.5
Hydrogen Peroxide 31%-40%	-	Disinfection and Oxidation Chemicals	20
Hydrogen Peroxide 34%	-	Disinfection and Oxidation Chemicals	23.5
Hydrogen Peroxide 41%-49%	-	Disinfection and Oxidation Chemicals	16
Hydrogen Peroxide 50%	-	Disinfection and Oxidation Chemicals	16
Sodium Permanganate, 40% [*Mn]	-	Disinfection and Oxidation Chemicals	112
Hydrofluosilicic Acid	-	Miscellaneous Treatment Chemicals	6
Zinc Orthophosphate	[Zn]	Softening, Precipitation, Sequestering, pH adjustment, and Corrosion/Scale Control Chemicals	16.5

[Al] - The finished drinking water shall be monitored to verify that the level of aluminum does not exceed 2 mg/L.

[Cu] - The finished drinking water shall be monitored to verify that the level of copper does not exceed 1.3 mg/L.

[Zn] - The finished drinking water shall be monitored to verify that the level of zinc does not exceed 2 mg/L.

[\*Al] - The finished drinking water shall be monitored to verify that the level of aluminum does not exceed 2 mg/L.

[\*Cu] - This chemical contains copper and can increase the amount of copper in the finished drinking water. The finished drinking water shall be monitored to verify that levels of copper do not exceed 1.3 mg/L.

[\*HPH] - Refer to AWWA B300, "Hypochlorites" for recommended storage and handling practices.

[\*Mn] - The finished drinking water shall be monitored to ensure that levels of manganese do not exceed 0.05 mg/L.

[\*OL] - These products are designed to be used off-line and flushed out prior to using the system for drinking water, following the manufacturer's use instructions. The pH or other water chemistry of the influent and effluent water should be monitored to ensure that all traces of the product have been removed before placing into service.

[\*Zn] - The finished drinking water shall be monitored to verify that the level of zinc does not exceed 2 mg/L.

Last Updated on 2020-05-27

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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# *of* CERTIFICATE ACCREDITATION

## PRODUCT CERTIFICATION

The American National Standards Institute hereby affirms that

**UL LLC**

333 Pfingsten Road, Northbrook, IL 60062, USA

**ACCREDITATION ID# 0198**

meets the ANSI accreditation program requirements and those set forth in  
ISO/IEC 17065:2012 Conformity assessment – Requirements for Bodies certifying products, processes and service

### **LIST OF CERTIFICATION SCHEME(S)**

US Safety Scheme

Food Equipment Sanitation Scheme

Water Systems Scheme

Accredited Elevator/Escalator Certification Organization (AECO): Elevator systems, subsystems, components, and functions for  
issuance of Certificates of Conformance and Marks in according to ASME A17.7/CSA B44.7

EPA WaterSense - WaterSense® Product Certification System

### **LIST OF STANDARDS**

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

NSF/ANSI 61 : Drinking Water System Components - Health Effects

NSF/ANSI 372 : Drinking Water System Components - Lead Content

for programs within the following

### **SCOPE OF ACCREDITATION**

(Please see the following pages for the scope of accreditation)



Executive Director  
ANSI National Accreditation Board

2021-12-01  
VALID THROUGH



IAF  
IAF Product  
MLA Signatory

Certificate ID: AXJHAMLK



# THATCHER COMPANY OF NEW YORK

an ISO9001:2015 registered company (cert. #08010881)

P.O. BOX 118, WILLIAMSON, NEW YORK 14589  
(315) 589-9330 PHONE  
(315) 589-9835 FAX

## CERTIFICATE OF ANALYSIS

Sodium Permanganate 20%

This is to certify that the listed lot number was assayed with the following results:

Lot No.

	<u>SPECIFICATION</u>	<u>RESULTS</u>
Physical Appearance:	Clear purple liquid with no insoluble matter	OK
Density@23C	1.14 – 1.18	1.16
%NaMNO <sub>4</sub>	19.5 – 20.4%	20.1%

Thatcher Company of New York  
Laboratory Services





**THATCHER COMPANY OF NEW YORK, INC.**

P.O. BOX 118  
4135 Route 104  
Williamson, NY 14589  
(315) 589-9330 PHONE  
(315) 589-9835 FAX

**PRODUCT SPECIFICATION**

**SODIUM PERMANGANATE, 20%**

CAS NUMBER: 10101-50-5 (monohydrate)  
CHEMICAL FORMULA:  $\text{NaMnO}_4$   
MOLECULAR WEIGHT: 141.93

PRODUCT DESCRIPTION: Dark purple liquid with no odor

TYPICAL PROPERTIES:	Sodium Permanganate Assay (%)	19.5-20.4
	Chloride (%)	<0.05
	Sulfate (%)	<0.005
	Potassium (%)	<0.15
	Specific Gravity:	1.16 Typ.
	pH:	6-8
	Freezing Point (F):	20 min.

**CERTIFICATIONS:**



**SODIUM PERMANGANTE**  
**ANSI/NSF 60**  
**<35Y2>**  
**MUL: 224 mg/L**

**WARRANTY**

This information is, to the best of our knowledge, accurate, but may not be complete. Thatcher Company furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness or reliability.

1/28/2015

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Sodium Permanganate 20%

### Other means of identification

**Product Number** 1916201

**Recommended use** Not available.

**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** Thatcher Company of New York, Inc.

**Address** 4135 Route 104  
Williamson, NY 14589  
United States

**Telephone** (315) 589-9330

**E-mail** Not available.

**Emergency phone number** Not available.

## 2. Hazard(s) identification

**Physical hazards** Oxidizing liquids Category 2

**Health hazards** Not classified.

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger

**Hazard statement** May intensify fire; oxidizer.

#### Precautionary statement

##### Prevention

Keep away from heat. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective gloves/eye protection/face protection.

##### Response

In case of fire: Use appropriate media to extinguish.

##### Storage

Not available.

##### Disposal

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

**Hazard(s) not otherwise classified (HNOC)** Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

**Supplemental information** Not applicable.

## 3. Composition/information on ingredients

### Mixtures

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

**Inhalation** Call a physician if symptoms develop or persist.

**Skin contact** Get medical attention if irritation develops and persists.

**Eye contact** Get medical attention if irritation develops and persists.

**Ingestion** Get medical attention if symptoms occur.

Material name: Sodium Permanganate 20%

1916201 Version #: 01 Issue date: 01-14-2016

SDS US

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<b>Most important symptoms/effects, acute and delayed</b>	Not available.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
<b>5. Fire-fighting measures</b>	
<b>Suitable extinguishing media</b>	Water fog. Foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. May intensify fire; oxidizer.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire fighting equipment/instructions</b>	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	May intensify fire; oxidizer.
<b>6. Accidental release measures</b>	
<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Remove all possible sources of ignition in the surrounding area. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.  Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

## 7. Handling and storage

### Precautions for safe handling

Keep away from heat. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take any precaution to avoid mixing with combustibles. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

### Conditions for safe storage, including any incompatibilities

Keep away from heat. Avoid spark promoters. Eliminate sources of ignition. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Do not store near combustible materials.

## 8. Exposure controls/personal protection

### Occupational exposure limits

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

Material	Type	Value
sodium permanganate (CAS 10101-50-5)	Ceiling	5 mg/m3

#### US. ACGIH Threshold Limit Values

Material	Type	Value	Form
sodium permanganate (CAS 10101-50-5)	TWA	0.1 mg/m3	Inhalable fraction.
		0.02 mg/m3	Respirable fraction.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value	Form
sodium permanganate (CAS 10101-50-5)	STEL	3 mg/m3	Fume.
	TWA	1 mg/m3	Fume.

### Biological limit values

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

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear eye/face protection.

#### Skin protection

**Hand protection** Wear protective gloves.

**Other** Wear suitable protective clothing.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

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

## 9. Physical and chemical properties

### Appearance

**Physical state** Liquid.

**Form** Liquid.

<b>Color</b>	Dark purple
<b>Odor</b>	None.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	0.00001 hPa estimated < 0.0000001 kPa at 25 °C
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	9.70 lb/gal

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Health injuries are not known or expected under normal use. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Health injuries are not known or expected under normal use.
<b>Eye contact</b>	Health injuries are not known or expected under normal use.
<b>Ingestion</b>	Health injuries are not known or expected under normal use.

**Symptoms related to the physical, chemical and toxicological characteristics** Not available.

### Information on toxicological effects

**Acute toxicity** Not available.

<b>Skin corrosion/irritation</b>	Health injuries are not known or expected under normal use.
<b>Serious eye damage/eye irritation</b>	Health injuries are not known or expected under normal use.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

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

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

<b>UN number</b>	UN3214
<b>UN proper shipping name</b>	Permanganates, inorganic, aqueous solution, n.o.s.
<b>Transport hazard class(es)</b>	
<b>Class</b>	5.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	5.1
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	26, 353, IB2, T4, TP1
<b>Packaging exceptions</b>	152
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**DOT BULK****BULK**

UN number	UN3214
UN proper shipping name	Permanganates, inorganic, aqueous solution, n.o.s.
Transport hazard class(es)	
Class	5.1
Label(s)	5.1
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	26, 353, IB2, T4, TP1
Packaging exceptions	152
Packaging non bulk	202
Packaging bulk	242

**IATA**

UN number	UN3214
UN proper shipping name	Permanganates, inorganic, aqueous solution, n.o.s.
Transport hazard class(es)	
Class	5.1
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	5L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

**IMDG**

UN number	UN3214
UN proper shipping name	PERMANGANATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
Transport hazard class(es)	
Class	5.1
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-H, S-Q
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

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

Not available.

DOT; DOT Bulk packaging type



IATA; IMDG



## 15. Regulatory information

### US federal regulations

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

All components are on the U.S. EPA TSCA Inventory List.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

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

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - No

Delayed Hazard - No

Fire Hazard - Yes

Pressure Hazard - No

Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical      No

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

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

Not regulated.

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

Not regulated.

Safe Drinking Water Act (SDWA)      Not regulated.

### US state regulations

#### US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

#### US. Massachusetts RTK - Substance List

Not regulated.

#### US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

#### US. Pennsylvania RTK - Hazardous Substances

Not regulated.

#### US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

#### US. Rhode Island RTK

Not regulated.



**US. California Proposition 65**

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

**International Inventories**

Country(s) or region	Inventory name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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

**16. Other Information, including date of preparation or last revision**

Issue date 01-14-2016  
Version # 01  
NFPA ratings Health: 0  
Flammability: 0  
Instability: 0  
Special hazards: OX

NFPA ratings

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



**THATCHER COMPANY OF NEW YORK, INC.**

4135 Route 104  
Williamson, NY 14589  
315-589-9330  
315-589-9835

**PRODUCT SPECIFICATION**

**Sodium Aluminate 39% Solids**

CAS NUMBER: 1302-42-7  
CHEMICAL FORMULA:  $\text{NaAlO}_2$

PRODUCT DESCRIPTION:	Colorless to brown solution with no insoluble or suspended matter	
CERTIFICATIONS:	Certified by UL to meet ANSI 60 Standard for Drinking Water Additives (UL Ref.: MH 17003) <sup>1</sup>	
SPECIFICATIONS:	Assay (% $\text{Na}_2\text{Al}_2\text{O}_4$ Basis):	31.4-34.4
	Assay (% $\text{Na}_2\text{Al}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ Basis)	38.4-42.0
	$\text{Al}_2\text{O}_3$ (%):	19.6-21.4
	$\text{Na}_2\text{O}$ , total (%):	19.1-20.8
	$\text{Na}_2\text{O}$ , excess (%):	7.5 Typ
	Molar Ratio ( $\text{Na}_2\text{O}/\text{Al}_2\text{O}_3$ ):	1.6 Typ
	Solids (%):	38.6-42.2



**SODIUM ALUMINATE [Al]  
ANSI/NSF 60  
<35Y2>  
MUL: 43 mg/L**

**Notes:**

1. Blended, diluted or transloaded product must be independently certified to meet ANSI/NSF60 Standard.

**WARRANTY**

This information is, to the best of our knowledge, accurate, but may not be complete. Thatcher Company furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness or reliability.

# SAFETY DATA SHEET

## 1. Identification

**Product Identifier** Sodium Aluminate, 39% Solids

**Other means of identification** None.

**Recommended use** Not available.

**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor Information

#### Manufacturer

**Company name** Thatcher Company of New York, Inc.  
**Address** 4135 Route 104  
Williamson, NY 14589  
United States  
**Telephone** (315) 589-9330  
**E-mail** Not available.  
**Emergency phone number** Chemtrec (CCN 22106) 800-424-9300

## 2. Hazard(s) Identification

**Physical hazards** Not classified.

**Health hazards** Skin corrosion/irritation Category 1  
Serious eye damage/eye irritation Category 1

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

#### Label elements



**Signal word** Danger

**Hazard statement** Causes severe skin burns and eye damage. Causes serious eye damage.

#### Precautionary statement

**Prevention** Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.

**Storage** Store locked up.

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

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/Information on Ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Sodium Aluminate		11138-49-1	31 - < 33
Sodium Oxide		1313-59-3	7 - < 8
Other components below reportable levels			60 - < 70

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Material name: Sodium Aluminate, 39% Solids

1801150, 1901151, 1901152, 1901153, 0316720, 0316722, 0316727, 0324721, 1901156 Version #: 03 Revision date: 08-01-2019

SDS US

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#### 4. First-aid measures

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

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Not applicable.
<b>Special protective equipment and precautions for firefighters</b>	Wear suitable protective equipment.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Provide adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Material	Type	Value	Form
Sodium Aluminate, 39% Solids	TWA	1 mg/m3	Respirable fraction.
Components	Type	Value	Form
Sodium Aluminate (CAS 11138-49-1)	TWA	1 mg/m3	Respirable fraction.

### Biological limit values

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

### Appropriate engineering controls

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

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

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

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

##### Other

Wear appropriate chemical resistant clothing.

#### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

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

## 9. Physical and chemical properties

### Appearance

#### Physical state

Liquid.

#### Form

Liquid.

#### Color

Not available.

#### Odor

Not available.

#### Odor threshold

Not available.

#### pH

Not available.

#### Melting point/freezing point

Not available.

#### Initial boiling point and boiling range

Not available.

#### Flash point

Not available.

#### Evaporation rate

Not available.

#### Flammability (solid, gas)

Not applicable.

### Upper/lower flammability or explosive limits

#### Flammability limit - lower (%)

Not available.

#### Flammability limit - upper (%)

Not available.

#### Explosive limit - lower (%)

Not available.

#### Explosive limit - upper (%)

Not available.

#### Vapor pressure

Not available.

#### Vapor density

Not available.

#### Relative density

Not available.

#### Solubility(ies)

##### Solubility (water)

Not available.

<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	11.85 estimated
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

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

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

### Information on toxicological effects

<b>Acute toxicity</b>	Not available.
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

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

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.

<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

<b>Disposal Instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

#### DOT

<b>UN number</b>	UN1819
<b>UN proper shipping name</b>	Sodium aluminate, solution (Sodium Aluminate)
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	8
<b>Packing group</b>	III
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	IB3, T4, TP1
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	203
<b>Packaging bulk</b>	241

#### DOT BULK

#### BULK

<b>UN number</b>	UN1819
<b>UN proper shipping name</b>	Sodium aluminate, solution (Sodium Aluminate)
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Label(s)</b>	8
<b>Packing group</b>	III
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	IB3, T4, TP1
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	203
<b>Packaging bulk</b>	241

#### IATA

<b>UN number</b>	UN1819
<b>UN proper shipping name</b>	Sodium aluminate solution (Sodium Aluminate)
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	8L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed.
<b>Cargo aircraft only</b>	Allowed.

**IMDG**

UN number UN1819  
UN proper shipping name SODIUM ALUMINATE SOLUTION (Sodium Aluminate)  
Transport hazard class(es)

Class 8

Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant No.

EmS F-A, S-B

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

DOT; DOT Bulk packaging type



IATA; IMDG

**15. Regulatory information**

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
One or more components are not listed on TSCA.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

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

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

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

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No



**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

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

Not regulated.

**Safe Drinking Water Act (SDWA)**

Not regulated.

**US state regulations****US - New Jersey RTK - Substances: Listed substance**

Sodium Aluminate (CAS 11138-49-1)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

Not regulated.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

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

**International inventories**

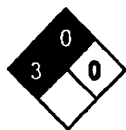
Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	09-11-2017
<b>Revision date</b>	08-01-2019
<b>Version #</b>	03
<b>NFPA ratings</b>	Health: 3 Flammability: 0 Instability: 0

**NFPA ratings****Disclaimer**

Thatcher Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

**Revision Information**

Product and Company Identification: Product Codes

**THATCHER COMPANY OF NEW YORK, INC.**  
P. O. Box 118, Williamson, NY 14589



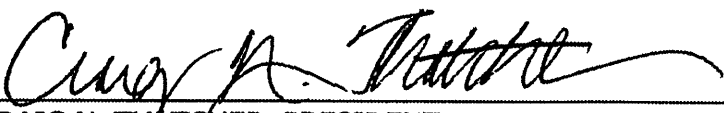
Phone (315) 589-9330  
Fax (315) 589-9835

October 6, 2020

City of Sandusky, OH  
Chemicals for the Calendar Year 2021  
Bid Opening: October 13, 2020

## **AFFIDAVIT OF COMPLIANCE**

This affidavit certifies and warrants the powdered activated carbon to be delivered to the City of Sandusky, OH by Thatcher Company of New York, Inc. fully complies with ANSI/AWWA Standards and NSF 61 Standard.

  
CRAIG N. THATCHER, PRESIDENT



# CAL - PACIFIC CARBON, LLC.

## PACarb Plus 700 Powdered Activated Carbon CERTIFIED ANALYSIS

Designed for economic use in "Mix Contact Filter" systems and other contact type applications where granular columns are not feasible.

Our product is manufactured from a blend of high quality wood and coal through carbonization and high temperature steam activation under stringent quality control.

### Product Specifications

Apparent density, g/c3	0.42 – 0.48
Iodine number mg/g avg.	700
Phenol number(g/ml max.)	2.0
pH	6-8
Ash, wt. % max.	10
Moisture (as packed), wt. % max.	8
Particle size distribution	99%-100 95%-200 90%-325

Conforms to AWWA standard B600-10

UL Approved-Certificate #062097-MH25593

**SHIPPING INFORMATION:** Fields Landing, CA 95537 **Terms:** Net 30 Days

Packaging in Multi-Kraft bags. Each bag contains 50-lb. /25 kg. Net weight, 2 cu. Ft.  
Bulk shipment packaging is also available.

Drinking Water System Component  
ANSI/NSF 61



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Revised 1/1/2018



**FDNP.MH25593**  
**Drinking Water System Components**

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**Drinking Water System Components**

[See General Information for Drinking Water System Components](#)

**CAL-PACIFIC CARBON L L C**  
555 S DEPOT RD  
PO BOX 103  
FIELDS LANDING, CA 95537 USA

MH25593

**ANSI/NSF STANDARD 61**

**Process Media**

Trade Dsg	Water Contact Temp	Water Contact Mtl	Surface Area to Volume Ratio
PACarb Plus Powder Activated Carbon	23	Powder Activated Carbon (PAC)	250 mg/L
PACarb Powder Activated Carbon	23	Powder Activated Carbon (PAC)	250 mg/L

[Last Updated](#) on 2005-05-04

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An independent organization working for a safer world with integrity, precision and knowledge.





# CAL - PACIFIC CARBON, LLC.

*Manufacturers and Distributors  
of Activated, Powdered, and Treated Carbons*

## Safety Data Sheet

### Section 1. Identification

- |                                  |   |
|----------------------------------|---|
| a) GHS Product Identifier        | : PACarb, PACarb Plus   |
| b) Other means of identification | : Activated carbon  |
| c) Material uses:                | : Water purification, odor filtration   |
| d) Supplier's details:           | : Cal-Pacific Carbon, LLC<br>555 south Depot Rd.<br>Fields Landing, California 95537<br>email: Pacarb@att.net |
| e) Emergency phone number        | : 707-268-8766  |

### Section 2. Hazards Identification

- |                          |  |
|--------------------------|--|
| a) GHS-US classification | : Eye Irritation 2B H320<br>STOT SE 3 H335 |
|--------------------------|--|

#### b) GHS label elements



Hazard Pictogram:

Signal word

Hazard statements (GHS-US)

- |  |
|--|
| : Warning  |
| : May form combustible dust concentrations in air. |
| : H320 - May cause eye irritation                  |
| : H335 - May cause respiratory irritation          |

#### Precautionary Statements

Prevention

Response

Storage:

- |  |
|--|
| : Avoid generation of dust during handling. Avoid breathing dust. Wash thoroughly after handling. Use in a well-ventilated area. |
| : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing.                                      |
| : If in eyes, rinse cautiously with water for several minutes.   |
| : Store in a well-ventilated place. Keep container(s) tightly  |

closed.

c) Other hazards : May form combustible dust concentrations in the air.

### Section 3. Composition/Information on Ingredients

- a) Substance/mixture : Substance
  - Chemical name : Activated carbon
  - Chemical identity (% by weight) : 100%
- b) Common name, synonyms : Activated carbon, powdered activated carbon
- c) CAS number : 7440-44-0
- d) Impurities and stabilizing additives : None

### Section 4. First Aid measures

- a) Description of First Aid measures
  - First Aid after Inhalation : Remove person to fresh air. If not breathing, administer CPR or artificial respiration. Get immediate medical attention.
  - First Aid after skin contact : Wash area thoroughly. If skin reddening or irritation develops get medical attention.
  - First aid after eye contact : Immediate flush eyes with plenty of water for at least 15 minutes. If irritation persists, seek medical attention.
  - First Aid after ingestion : DO NOT induce vomiting unless directed to do so by medical personnel.
- b) Most important symptoms/effects, both acute and delayed
  - Symptoms/injuries after inhalation : May cause respiratory irritation
  - Symptoms/injuries after skin contact : May cause skin irritation
  - Symptoms/injuries after eye contact : May cause eye damage
  - Symptoms/injuries after ingestion : May be harmful if swallowed
- c) Indications of immediate medical attention and special treatment : No additional information available.

### Section 5. Fire-fighting measures

- a) Extinguishing media : Use an extinguishable media suitable for surrounding the fire. If involved with fire, flood with water.
  - Unsuitable extinguishing media : Do not use water jet.
- b) Specific hazards : Fine dust clouds may form explosive mixtures with air.
  - Hazardous thermal decomposition products : Decomposition products may include carbon dioxide and carbon monoxide

**c) Special protective actions for firefighters**

: Fire fighters should wear full protective gear. Move containers from fire area if this can be done without risk. Use water SPRAY to keep fire-exposed containers cool.

**Section 6. Accidental release measures**

**a) Personal precautions, protective equipment, emergency procedures**

: Wear protective equipment, keep unnecessary personnel away, and ventilate area of spill.

**b) Environmental precautions**

: The material is not soluble, but can cause a particulate emission if discharged to waterways. Therefore, dike all entrances to sewers and drains to avoid introducing the material to waterways.

**c) Methods and materials for containment and cleaning up**

: Dike all entrances to sewers and drains. Vacuum or shovel spilled material and place in closed container for disposal. Remove product to appropriate storage area until it can be disposed of in accordance with local, state and federal regulations. Avoid dust formation.

**Section 7. Handling and storage**

**a) Precautions for safe handling**

: Put on appropriate protective equipment. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid the creation of dust when handling and avoid all possible sources of ignition. Prevent dust accumulation. Wear appropriate respirator. Keep container(s) tightly closed when not in use. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container(s).

**b) Conditions for safe storage**

: Protect containers from physical damage. Store in dry, cool, well-ventilated areas. Eliminate all ignition sources. Separate from oxidizing materials.

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

**a) Control parameters**

: Exposure guidelines - Wet activated carbon removes oxygen from air posing a hazard to workers in confined spaces. Before entering such an area, sample the air to assure sufficient oxygen supply. Use work procedures for low oxygen levels, observing all local, state and federal regulations.

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- |                                   |  |
|-----------------------------------|--|
| b) Engineering controls           | : The engineering controls need to keep gas, vapor or dust concentrations below lower limits. Use explosion proof ventilation equipment.   |
| c) Individual protective measures | : Use of NIOSH approved particulate filter is recommended if dust is generated in handling. The usual precautionary measures for handling chemicals should be followed, i. e. gloves, safety glasses with side shields, long sleeve shirt, dust respirator and/or other protective equipment as appropriate. |

## Section 9 Physical and chemical properties

- |  |   |
|--|---|
| a) Appearance                              | : Black, powder material  |
| Color                                      | : Black   |
| Odor                                       | : None  |
| Odor threshold                             | : None  |
| Molecular weight                           | : NA  |
| pH value                                   | : NA  |
| Melting point                              | : NA  |
| Freezing point                             | : NA  |
| Initial boiling point                      | : NA  |
| Flashpoint                                 | : NA  |
| Burning time                               | : NA  |
| Burning rate                               | : NA  |
| Evaporation rate                           | : NA  |
| Flammability (solid, gas)                  | : >220C   |
| Lower and upper explosive limits           | : NA  |
| Vapor pressure                             | : 0   |
| Vapor density                              | : Solid   |
| Relative density                           | : 0.4 to 0.7  |
| Solubility                                 | : Insoluble in the following materials - cold water and hot water |
| Partition coefficient: n-octanol/<br>water | : NA  |
| Auto ignition-temperature                  | : 420 to 470 degrees Celsius (788 to 878 degrees Fahrenheit)      |
| Decomposition temperature                  | : NA  |
| SADT                                       | : NA  |
| Viscosity                                  | : NA  |

## Section 10. Stability and reactivity

- |                       |   |
|-----------------------|---|
| a) Reactivity         | : No specific test data related to reactivity for this product. |
| b) Chemical Stability | : Stable. No conditions to avoid.                               |

- c) Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
- d) Conditions to avoid : Creation of dust when handling and avoid all possible sources of ignition. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.
- e) Incompatible materials : Alkali metals and strong oxidizers such as ozone, oxygen, permanganate, chlorine.
- f) Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced. However, carbon monoxide and carbon dioxide gas may be generated during combustion of this material.

#### **Section 11. Toxicological information**

- a) Toxicity studies : LD50 oral rat - >10000 mg/kg - non-irritating to eyes  
: skin irritation/corrosion (rabbit) - non irritating to skin
- b) Symptoms : See section 4
- c) Delayed and immediate effects : Long term exposure Immediate/delayed effects not available
- d) Numerical measures of Toxicity : No known side effects or critical hazards

#### **Section 12. Ecological information**

- a) Toxicity : Not available
- b) Persistence and degradability : Not available
- c) Bioaccumulative potential : Not available
- d) Mobility in soil : Not available
- 3) Other adverse effects : No known significant effects or critical hazards

#### **Section 13. Disposal information**

- : Dispose of contents/container in accordance with local/  
regional/international regulations
-

#### Section 14. Transportation information

- a) UN number : Not regulated
- b) UN proper shipping name : Not available
- c) Transport hazard classes : Not available
- d) Packing group : Not regulated
- e) Environmental hazards : None known at this time
- f) Additional information : In accordance with DOT/ADR/RID/ADNR/IMDG/ICAO/IATA

#### Section 15. Regulatory information

- a) US Federal regulations : Carbon (7440-44-0) Listed on the United States TSCA inventory
- b) US State regulations : No additional information available

#### Section 16. Other information

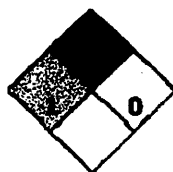
##### Hazardous Material Information System (U.S.A.)

Health	1
Physical hazards	0

HMIS ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks, and a 4 representing significant hazards or risks.

A rating of 1 under the Health was given due to the possible symptoms and effects outlined in Section 4.

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



NFPA health hazard

: 1-Exposure could cause irritation but only minor residual injury even if no treatment is given

NFPA fire hazard

: 0-Materials that will not burn

NFPA reactivity

: 0-Normally stable, even under fire exposure conditions, and not reactive with water

**Note: The information contained herein is accurate to the best of our knowledge. Cal-Pacific Carbon makes no warranty with respect to the information above and disclaims all liability from reliance there in.**

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### **Bids, Quotations, Certificate of Insurance Requests:**

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## APPENDIX A

# FORCE MAJEURE

## PERFORMANCE

- (a) Performance of any obligation under this contract may be suspended by the party so affected without liability in the event of an Act of God; war; fire; flood; strike; explosion; labor trouble; mechanical breakdown; accident, riot, governmental action, laws, regulations or orders (including, but not limited to, pollution, health, ecology or environmental matters); Seller's inability to obtain fuel, power, raw materials, or equipment used in connection therewith on terms it deems practicable; or any other cause beyond the reasonable control of either party interfering with the production, supply, transportation or consumption practice of the party at the time which delays, prevents, restricts, limits or renders commercially infeasible, the performance of this contract or the consumption, sale or use of the goods, except as to the goods already in transit.
- (b) The affected party may invoke subparagraph (a) or (b) by promptly notifying the other party in writing of the nature and the estimated duration of the suspension or cancellation of the party's performance. The total quantity hereunder shall be reduced by the quantity not delivered during the term of the suspension or cancellation without liability, and the contract shall otherwise remain unaffected. In no event shall Seller be required to ship the goods from Seller's or, if applicable, its affiliates' other locations or to purchase the goods or components thereof from other sources to fulfill the contract requirements. Seller may, without liability, allocate its supply of such goods or raw materials among its own uses, or distribute it among its customers upon such basis and in such manner as Seller deems fair and reasonable, provided that any goods or raw materials obtained by Seller from a third party solely for Seller's internal use are not subject to allocation.

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## APPENDIX B

# PRODUCT WARRANTY

**SELLER'S LIMITED WARRANTY:** SUBJECT TO THE LIMITATIONS LISTED BELOW, Seller warrants that at the time of delivery the goods will conform to the attached specifications, that Seller will convey good title thereto, and that the goods will be delivered free from any lawful security interest, lien or encumbrance.

**EXCLUSION AND DISCLAIMER OF ALL OTHER WARRANTIES:** THE LIMITED WARRANTIES LISTED ABOVE ARE SELLERS SOLE AND EXCLUSIVE WARRANTIES WITH RESPECT TO THE GOODS. SELLER MAKES NO OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, WHETHER WITH RESPECT TO ITS RECOMMENDATIONS, INSTRUCTIONS, GOODS, APPARATUS, PROCESS OR OTHERWISE, AND SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES, WHETHER OF MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.

### LIMITATIONS OF REMEDIES AND SELLER'S LIABILITY:

- (a) BUYER'S EXCLUSIVE REMEDY AND SELLER'S TOTAL LIABILITY TO BUYER FOR CLAIMS, AS DEFINED IN SUBPARAGRAPHS (b) BELOW, IS EXPRESSLY LIMITED AS FOLLOWS: BUYER HAS THE OPTION OF REPAYMENT OF THE PURCHASE PRICE PAID OR REPLACEMENT OF THE GOODS SUPPLIED HEREUNDER WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. BUYER WAIVES ALL OTHER CLAIMS BY BUYER AGAINST SELLER AND SELLER SHALL NOT BE LIABLE TO BUYER FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY OR PUNITIVE DAMAGES, EXCEPT IN CASES OF GROSS NEGLIGENCE. THE PRICE STATED FOR THE GOODS IS A CONSIDERATION IN LIMITING SELLERS AND ITS AFFILIATES' LIABILITY.
- (b) "CLAIMS" MEANS ALL ASSERTIONS OF ANY LEGAL, EQUITABLE, AND/OR ADMIRALTY CAUSES OF ACTION, INCLUDING, BUT NOT LIMITED TO, NEGLIGENCE; STRICT LIABILITY; OTHER TORT; EXPRESS OR IMPLIED WARRANTIES, INDEMNITY OR CONTRACT; CONTRIBUTION; OR SUBROGATION RELATED TO OR ARISING OUT OF THE PERFORMANCE OR NONPERFORMANCE OF THIS CONTRACT.
- (c) ALL LIMITATIONS ON BUYER'S REMEDIES AND SELLER'S LIABILITY SHALL SURVIVE THE EXPIRATION, TERMINATION OR CANCELLATION OF THIS CONTRACT.

**NOTICE OF CLAIMS:** All product claims by Buyer shall be deemed waived unless made by Buyer in writing and received by Seller within thirty (30) days of receipt of the goods; provided that for any claim which is not readily discoverable within such 30 day period such claim shall be deemed waived unless made by Buyer in writing and received by Seller within 90 days after receipt of the goods or within 30 days after Buyer learns or should have been reasonably aware of facts which should have given rise to such claim, whichever first occurs.

**BUYER'S WARRANTIES AND ASSUMPTION OF DUTIES REGARDING SAFETY, HEALTH, UNLOADING, USE, HANDLING, AND DISPOSAL OF THE GOODS.**

- (a) Buyer warrants that it has used its own independent skill and expertise in connection with the selection and use of the goods and that it possesses skill and expertise in handling, storage, transportation, treatment, use and disposal of the goods. Seller's recommendations, instructions, or information as to safety, health, handling, use, unloading or disposal of the goods are based upon information believed to be reliable, but Seller shall have no liability with respect thereto.
- (b) Buyer hereby acknowledges receipt of Seller's Material Safety Data Sheet (MSDS). Buyer assumes the following duties and obligations:

  - (1) Buyer shall promptly and carefully inspect the goods upon receipt. Buyer will adopt and maintain safe handling, storage, transportation, use treatment and disposal practices with respect to the goods, and further agrees to follow such special care and best manufacturing practices as Buyer's use of the goods require including, but not limited to, all such practices required by federal, state, and local government statutes, rules, regulations or ordinances;
  - (2) Buyer shall instruct its employees, independent contractors, agents and customers of the precautions and safe use practices required in connection with the unloading, handling, storage, use, transportation and disposal of the goods, including, but not limited to, information contained in Seller's most current MSDS; and
  - (3) Buyer shall comply with the OSHA Hazard Communication Standard, all applicable safety and environmental laws, and all other applicable government statutes, rules, regulations or ordinances, and shall take action necessary to avoid spills, emissions, leaks or other dangers to persons, property, or the environment.