



Bid Number 50-00142708

Two (2) Year Contract for the Supply of Bulk Liquid Aluminum Sulfate
for the Jefferson Parish Department of Water

BID DUE: August 3, 2023 AT 2:00 P.M.

ATTENTION VENDORS!!!

Please review all pages and respond accordingly, complying with all provisions in the technical specifications and Jefferson Parish Instructions for Bidders and General Terms and Conditions. All bids must be received on the Purchasing Department's eProcurement site, www.jeffparishbids.net, by the bid due date and time. Late bids will not be accepted.

Jefferson Parish Purchasing Department
200 Derbigny Street
General Government Building, Suite 4400
Gretna, LA 70053
Buyer Name: Doris Abraham
Buyer Email: DABRAHAM@jeffparish.net
Buyer Phone: 504-364-2690

Bid No. 50-00142708

Bid Specifications for Bulk Liquid Aluminum Sulfate

For a 2 Year Contract

Contract term will be 01/01/2024 through 12/31/2025.

- A. The liquid aluminum sulfate must be approximately 48.5% by weight dry aluminum sulfate ($\text{Al}_2(\text{SO}_4)_3 - 14\text{H}_2\text{O}$, molecular weight = 594) and meet the requirements of the latest version of American Water Works Association Standard B403, and must be certified for use in drinking water under national sanitation foundation standard 60.
- B. The bid price of the liquid aluminum sulfate shall be made on a 100% dry basis such that a shipment of 48.5% liquid aluminum sulfate shall be paid at a rate of 48.5% of the bid price. A certified analysis indicating the percentage of liquid aluminum sulfate must accompany each shipment.
- C. Shippers must provide the necessary properly sized equipment to quickly unload their product into the designated storage tanks at the delivery site. Vendors must verify compatibility of their hose connections with our tanks before bidding (contact plant superintendents at 504-838-4398 for East Bank and 504-349-5085 for West Bank). The East Bank Water Treatment Plant is located at 3600 Jefferson Highway, Jefferson, LA 70121. The West Bank Water Treatment Plant is located at 4500 West Bank Expressway, Marrero, LA 70072. Delivery trucks must provide their own source of air if it is required for unloading.
- D. The bulk liquid aluminum sulfate must be delivered freight prepaid in 20-ton shipments to both the East and West Bank Water Treatment Plants as required and within 5 calendar days after the order is placed.
- E. Approximate total quantity for the 2-year contract is 3800 tons. Quantity listed is for bidding purposes only and is not to be construed as the actual quantity to be purchases over the 2-year contract period. Actual requirements may be more or less than the quantity listed.

DATE: 7/19/2023
BID NO.: 50-00142708

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 1

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETN, LA. 70054-0009
504-364-2678

BUYER: DABRAHAM@jeffparish.net

BIDS WILL BE RECEIVED ONLINE VIA WWW.JEFFPARISHBIDS.NET UNTIL 2:00 PM, 8/03/2023 AND PUBLICLY OPENED THEREAFTER IN THE WEST BANK PURCHASING DEPT, SUITE 4400, JEFFERSON PARISH GENERAL GOVERNMENT BUILDING, 200 DERBIGNY STREET, GRETN, LA 70053. At no charge, bidders are to submit via Jefferson Parish's electronic procurement page by visiting www.jeffparishbids.net to register for this free site. Additional instructions are included in the text box highlighting electronic procurement.

LATE BIDS WILL NOT BE ACCEPTED

NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION. HOWEVER, ELECTRONIC SIGNATURES AS DEFINED IN LSA - R.S. 9:2620(8) ARE ACCEPTABLE. SIGNATURE MUST BE A SECURED DIGITAL SIGNATURE.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

THE FOLLOWING INSTRUCTIONS APPLY TO ALL BIDS

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647 as amended.

Jefferson Parish adheres to the Louisiana Code of Governmental Ethics, contained in Louisiana Revised Statutes Annotated, R.S. 42:1101, et seq. Vendor/Proposer by this submission, warrants that there are no "conflicts of interest" related to this procurement that would violate applicable Louisiana Law. Violation of the Louisiana Code of Governmental Ethics may result in rescission of contract, permit or licenses, and the imposition of fines and/or penalties, without contractual liability to the public in accordance with applicable law.

All vendors submitting bids should register as a Jefferson Parish vendor if not already yet registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and by clicking on Vendor Information. Current W-9 forms with respective Tax Identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Vendors may experience a delay in payment if your company is not a registered vendor with Jefferson Parish.

All quotations shall be based on F.O.B. Agency warehouse or job site, anywhere within the Parish as designated by the Purchasing Department. This provision does not apply to public works projects

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.

Bidders should submit all questions in writing via email to the buyer's email address as indicated above, no later than Five (5) working days prior to the bid opening. Bid numbers should be mentioned in all requests. If submitting online, vendors may send questions via the E-Procurement site no later than Five (5) working days prior to the bid opening.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum. Please note that all official communication will be expressed in the form of an addendum.

Visit our website at [HTTP://PURCHASING.JEFFPARISH.NET](http://PURCHASING.JEFFPARISH.NET)

All formal Addenda require written acknowledgement on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected. JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. Vendors must not alter the bid forms. Doing so will cause the bid to be rejected.

A corporate resolution or written evidence of the individual signing the bid having such authority must be submitted with the bid. Failure to comply will cause bid to be rejected. For corporate entities, such written evidence may be a printout of the Louisiana Secretary of State's website listing the signatory as an officer. Such printout shall be included with the bid submission. Bids submitted by Owners or Sole Proprietorships must include certification that he or she owns the entity for which the bid is signed. This documentation must be submitted with the bid. Failure to do so will result in bid rejection.

NOTE: A sample corporate resolution can be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document. A sample certification of sole proprietorship can also be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

A. AWARD OF CONTRACT: JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE. SPLIT AWARDS MADE TO SEVERAL VENDORS WILL ONLY BE GRANTED TO THOSE DEEMED RESPONSIVE AND RESPONSIBLE.

All bid prices shall remain valid for 45 days. Jefferson Parish and the lowest responsive and responsible bidder(s) by mutual written consent may mutually agree to extend the deadline for award by one (1) or more extensions of thirty (30) calendar days.

PROTESTS: Only those vendors that submit bids in response to this solicitation may protest any element of the procurement, in writing to the Director of the Purchasing Department. Written protest must be received within 48 hours of the release of the bid tabulation by the Purchasing Department. After consultation, the Parish Attorney's Office will then respond to protests in writing. (For more information, please see Chapter 2, Article VII, Division 2, Sec. 2-914.1 of the Jefferson Parish Code of Ordinances.)

PREFERENCE: Unless federal funding is directly spent by Jefferson Parish for this purchase, preference is hereby given to materials, supplies, and provisions produced, manufactured or grown in Louisiana, quality being equal to articles offered by competitors outside the state. "LSA – R.S. 38:2251-2261"

B. USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

C. CANCELLATION OF CONTRACT: JEFFERSON PARISH reserves the right to cancel all or any part if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel any contract at anytime and for any reason by issuing a THIRTY (30) day written notice to the contractor.

For good cause and as consideration for executing a contract with Jefferson Parish, vendor conveys, sells, assigns and transfers to Jefferson Parish or its assigns all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Louisiana, relating to the particular good or services purchased or acquired by Jefferson Parish.

D. PRICES: Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and local taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A17.1-1961).

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

Jefferson Parish and its partners as the recipients of federal funds are fully committed to awarding a contract(s) to firm(s) that will provide high quality services and that are dedicated to diversity and to containing costs. Thus, Jefferson Parish strongly encourages the involvement of minority and/or woman-owned business enterprises (DBE's, including MBE's, WBE's and SBE's) to stimulate participation in procurement and assistance programs.

The purpose and intention of this invitation to bid is to afford all suppliers an equal opportunity to bid on all construction, maintenance, repair, operating supplies and/or equipment listed in this bid proposal. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications.

Advertised bids will be tabulated and a copy of the tabulation will be forwarded to each responding bidder.

IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS

This electronic procurement system allows vendors the convenience of reviewing and submitting bids online.

This is a secure site and authorized personnel have limited read access only. Bidders are to submit electronically using this free service; while the website accepts various file types, one single PDF file containing all appropriate and required bid documents is preferred. Bidders submitting uploaded images of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, then bidder's submission will be rejected. Please note all requirements contained in this bid package for electronic bid submission.

Please visit our E-Procurement Page at www.jeffparishbids.net to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

The general specifications for construction projects and the purchase of materials, services and/or supplies are those adopted by the JEFFERSON PARISH Council by Resolution No. 113646 or 113647 as amended. The general conditions adopted by this resolution shall be considered as much a part of this document as if they were written wholly herein. A copy may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at <http://purchasing.jeffparish.net> and clicking on Online Forms.

ADDITIONAL REQUIREMENTS FOR THIS BID

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.

10, 12, 13, 15

1. All bidders must attend the MANDATORY pre-bid conference and will be required to sign in and out as evidence of attendance. In accordance with LSA R.S. 38:2212(I), all prospective bidders shall be present at the beginning of the MANDATORY pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid electronic envelope. Failure to comply will cause the bid to be rejected. When submitting the bid electronically, the license number must be entered in the appropriate field in the electronic procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.
6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precaution must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.
7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise state in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. All bidders must comply with the requirements stated in the attached "Standard Insurance Requirements" sheet attached to this bid solicitation. Failure to comply with this instruction will result in bid rejection.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. All sureties must be in original format (no copies) When submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits Required; This applies to all solicitations for construction, alteration or demolition of public buildings or projects, in conformity with the provisions contained in LSA-RS 38:2212.9, LSA-RS 38:2212.10, LSA-RS 38:2224, and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit, Debt Disclosures Affidavit and E-Verify Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits Required in conformity with the provisions contained in LSA – RS 38:2224 and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Debt Disclosures Affidavit and Campaign Contribution Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

16. The ensuing contract for this bid solicitation may be eligible for FEMA reimbursement and/or Federal funding/reimbursement. As such, the referenced appendix will be applicable accordingly and shall be considered a part of the bid documents. All applicable certifications must be duly completed, signed and submitted with bid submission. Failure to submit applicable certifications with bid submission will result in bid rejection.

17. For this project, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which is permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment."). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owed on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session - Louisiana Revised Statute 47:301(8)(c). Owner will furnish to contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment, and report to Owner the amount of taxes not incurred.

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission: and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to JPCO 2-155.10(19). By signing this document, every corporation, partnership, or person contracting with PARISH, whether by cooperative endeavor, intergovernmental agreement, bid, proposal, application or solicitation for a parish contract, and every application for certification of eligibility for a parish contract or program, attests that it understands and will abide by all provisions of JPCO 2-155.10.

DATE: 7/19/2023

Page: 6

BID NO.: 50-00142708

BID FORM
Non Public Works

All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES X NO

MAXIMUM ESCALATION PERCENTAGE REQUESTED 8-10 %

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF 12/31/2024 .

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES 7-14

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable)

THIS SECTION MUST BE COMPLETED BY BIDDER:

FIRM NAME: Pencco, Inc.

ADDRESS: P.O. Box 600

CITY, STATE: San Felipe, TX ZIP: 77473

TELEPHONE: (979) 885-0005 FAX: (979) 885-3208

EMAIL ADDRESS: sarah@pencco.com

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form by placing the addendum number as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER:

NUMBER:

NUMBER:

NUMBER:

TOTAL PRICE OF ALL BID ITEMS: \$ 2,757,926.00

AUTHORIZED SIGNATURE: Sarah Duffy

 Sarah Duffy
Printed Name

TITLE: Bid Sec.

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00142708

SEALED BID

| ITEM NUMBER | QUANTITY | U/M | DESCRIPTION OF ARTICLES | UNIT PRICE QUOTED | TOTALS |
|----------------|----------|-----|--|----------------------|----------------|
| 1 | 3,800.00 | TN | <p>Two (2) Year Contract for the Supply of Bulk Liquid Aluminum Sulfate for the Jefferson Parish Department of Water</p> <p>0010 - BULK LIQUID ALUMINUM SULFATE BID ON A 100% DRY BASIS (DELIVERED FREIGHT PREPAID IN 20 TON SHIPMENTS TO BOTH EASTBANK AND WESTBANK WATER TREATMENT PLANTS AS REQUIRED).</p> <p>DELIVERY LOCATIONS:</p> <p>EASTBANK WATER PLANT 3600 JEFFERSON HIGHWAY JEFFERSON, LA 70121</p> <p>WESTBANK WATER PLANT 4500 WESTBANK EXPRESSWAY MARRERO, LA 70072</p> | \$725.77/dry ton | \$2,757,926.00 |

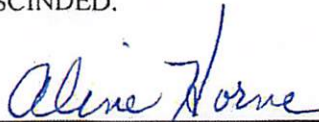
CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF
Pencco, Inc.
INCORPORATED.

AT THE MEETING OF DIRECTORS OF Pencco, Inc.
INCORPORATED, DULY NOTICED AND HELD ON 8/15/14,
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT
WAS:

RESOLVED THAT Sarah Duffy, BE AND IS HEREBY
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,
CONTRACTS AND ACTS AND TO RECEIVE ALL PURCHASE ORDERS AND NOTICES
ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS
CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING, AND ACCEPTING
EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-
FACT.

I HEREBY CERTIFY THE FOREGOING TO BE
A TRUE AND CORRECT COPY OF AN
EXCERPT OF THE MINUTES OF THE ABOVE
DATED MEETING OF THE BOARD OF
DIRECTORS OF SAID CORPORATION, AND
THE SAME HAS NOT BEEN REVOKED OR
RESCINDED.



SECRETARY-TREASURER

07/28/2023

DATE

Non-Public Works Bid Affidavit Instructions

- **Affidavit is supplied as a courtesy to Affiants, but it is the responsibility of the affiant to insure the affidavit they submit to Jefferson Parish complies, in both form and content, with federal, state and parish laws.**
- **Affidavit must be signed by an authorized representative of the entity or the affidavit will not be accepted.**
- **Affidavit must be notarized or the affidavit will not be accepted.**
- **Notary must sign name, print name, and include bar/notary number, or the affidavit will not be accepted.**
- **Affiant MUST select either A or B when required or the affidavit will not be accepted.**
- **Affiants who select choice A must include an attachment or the affidavit will not be accepted.**
- **If both choice A and B are selected, the affidavit will not be accepted.**
- **Affidavit marked N/A will not be accepted.**
- **It is the responsibility of the Affiant to submit a new affidavit if any additional campaign contributions are made after the affidavit is executed but prior to the time the council acts on the matter.**

Instruction sheet may be omitted when submitting the affidavit

Non-Public Works Bid

AFFIDAVIT

STATE OF TEXAS

~~PARISH~~/COUNTY OF Austin

BEFORE ME, the undersigned authority, personally came and appeared: _____

Sarah Duffy, (Affiant) who after being by me duly sworn, deposed and said that he/she is the fully authorized Bid Sec. of Pencco, Inc. (Entity), the party who submitted a bid in response to Bid Number 50-00142708, to the Parish of Jefferson.

Affiant further said:

Campaign Contribution Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B x there are **NO** campaign contributions made which would require disclosure under Choice A of this section.

Debt Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

Choice B x There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

[The remainder of this page is intentionally left blank.]

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

Sarah Duffy
Signature of Affiant

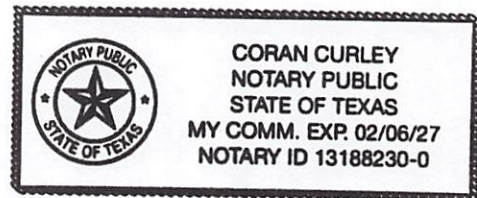
Sarah Duffy, Bid Sec.
Printed Name of Affiant

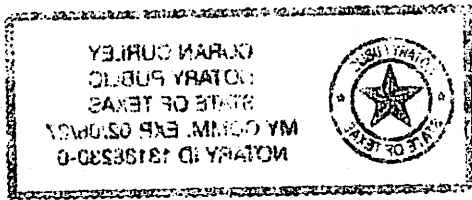
SWORN AND SUBSCRIBED TO BEFORE ME
ON THE 28th DAY OF July, 2023.

Coran Curley
Notary Public
Coran Curley
Printed Name of Notary

13188230-0
Notary/Bar Roll Number

My commission expires 2/6/27.





Curran Corley
Notary Public
State of Texas
Commission Expires 08/25/2015

1318230-0

STANDARD INSURANCE REQUIREMENTS FOR BIDDING PURPOSES

All required insurance under this bid shall conform to Jefferson Parish Resolution No. 113646 or No. 113647, as applicable. Contractors may not commence any work under any ensuing contract unless and until all required insurance and associated evidentiary requirements thereto have been met, along with any additional specifications contained in the **Invitation to Bid**. Except as where otherwise precluded by law, the Parish Attorney or his designee, with the concurrence of the Director of Risk Management or his designee, may agree on a case-by-case basis, to deviate from Jefferson Parish's standard insurance requirements, as provided in this Section. Vendors requesting deviation therefrom shall submit such requests in writing, along with compelling substantiation, to the Purchasing Department prior to the bid's due date. Any changes to the insurance requirements will be reflected in the bid specifications and addenda. Prior to contract execution and at all times thereafter during the term of such contract, contractors must provide and continuously maintain all coverages as required by the foregoing Resolutions, and the contract documents. Failure to do so shall be grounds for suspension, discontinuation or termination of the contract.

For bidding purposes, bidders must submit with bid submission a current (valid) insurance certificate evidencing the required coverages. Failure to comply will cause bid to be rejected. The current insurance certificate will be used for proof of insurance at time of evaluation. Thereafter, and prior to contract execution, the low bidder will be required to provide final insurance certificates to the Parish which shall name **the Jefferson Parish, its Districts Departments and Agencies under the direction of the Parish President and the Parish Council** as additional insureds regarding negligence by the contractor for the Commercial General Liability and the Comprehensive Automobile Liability policies. Additionally, said certificates should reflect the name of the Parish Department receiving goods and services and reference the respective Jefferson Parish bid number.

JEFFERSON PARISH REQUIRED STANDARD INSURANCE

☒ WORKER'S COMPENSATION INSURANCE

As required by Louisiana State Statute, exception; Employer's Liability, Section B shall be \$1,000,000 per occurrence when Work is to be over water and involves maritime exposures to cover all employees not covered under the State Worker's Compensation Act, otherwise this limit shall be no less than \$500,000 per occurrence.

Note: If your company is not required by law to carry workmen's compensation insurance, i.e. not a Louisiana company, sole employee of the company, then bidders must request a workmen's compensation insurance declaration affidavit prior to the bid opening date. This insurance declaration affidavit must be fully completed, signed, properly notarized and submitted with the bid. A scanned copy may be submitted with the bid; however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being

rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

☒ **COMMERCIAL GENERAL LIABILITY**

Shall provide limits not less than the following: \$1,000,000.00 Combined Single Limit per Occurrence for bodily injury and property damage.

☒ **COMPREHENSIVE AUTOMOBILE LIABILITY**

Bodily injury liability \$1,000,000.00 each person; \$1,000,000.00 each occurrence.
Property Damage Liability \$1,000,000.00 each occurrence.

Note: This category may be omitted if bidders do not/will not utilize company vehicles for the project or do not possess company vehicles. Bidder must request an automobile insurance declaration affidavit prior to the bid opening date. This insurance declaration affidavit must be fully completed, signed, properly notarized and submitted with the bid. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid; however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

DEDUCTIBLES - The Parish Attorney with concurrence of the Director of Risk Management have waived the deductible section of the Terms and Conditions for all Invitations to Bid, until further notice.

UMBRELLA LIABILITY COVERAGE

An umbrella policy or excess may be used to meet minimum requirements.

FOR CONSTRUCTION AND RENOVATION PROJECTS:

The following are required if selected below. Such insurance is due upon contract execution.

☐ **OWNER'S PROTECTIVE LIABILITY**

To be for the same limits of liability for bodily injury and property damage liability established for commercial general liability.

☐ **BUILDER'S RISK INSURANCE**

The contractor shall maintain Builder's Risk Insurance at his own expense to insure both the owner (Parish of Jefferson) and contractor as their interest may appear.



PO Box 600 San Felipe, Texas 77473
(979) 885-0005 Fax: (979) 885-3208

BOARD OF DIRECTORS MEETING

Prior Notice was waived and a meeting of the Directors was held on August 15, 2014. The following resolution was adopted in respects to the official signing of bids on behalf of Pencco, Inc.

BE IT RESOLVED by the Board of Directors of Pencco, Inc. in a meeting duly assembled that Monica Avila, former Bid Secretary of the Corporation, no longer has authority to negotiate for and sign any bid proposals and/or contracts on behalf of the Corporation.

BE IT FURTHER RESOLVED that Sarah Duffy, Bid Secretary, of the Corporation has authority to negotiate for and sign any bid proposals and/or contracts which the Corporation might enter into for the furnishing of services for the Corporation under such terms, conditions, and stipulations, and for such consideration as she may deem to be in the best interest of the Corporation.

No further business was necessary and the meeting was concluded.

Ron L. Horne, President



PENCINC-03

FHARTUNG

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
11/16/2022

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

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

| | | |
|---|---|--------------------------|
| PRODUCER Carlisle Insurance 500 N Water #900 Corpus Christi, TX 78401 | CONTACT Francie Hartung, CIC | |
| | PHONE (A/C, No, Ext): (361) 360-7094 | FAX (A/C, No): |
| INSURED Pencco, Inc. 831 Bartlett Rd. Sealy, TX 77474 | E-MAIL ADDRESS: francesh@carlisleins.com | |
| | INSURER(S) AFFORDING COVERAGE | |
| | INSURER A : Navigators Specialty Insurance Company | NAIC # 36056 |
| | INSURER B : Navigators Insurance Company | NAIC # 42307 |
| | INSURER C : Zenith Insurance Company | NAIC # 13269 |
| | INSURER D : | |
| | INSURER E : | |
| INSURER F : | | |

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

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

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|-----------------------------------|--|--|----------|-----------------|-------------------------|-------------------------|---|----|
| A | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER: | | | HO22NP3Z03E19IC | 11/15/2022 | 11/15/2023 | EACH OCCURRENCE \$ 1,000,000 | |
| | | | | | | | DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 | |
| | | | | | | | MED EXP (Any one person) \$ 25,000 | |
| | | | | | | | PERSONAL & ADV INJURY \$ 1,000,000 | |
| | | | | | | | GENERAL AGGREGATE \$ 2,000,000 | |
| | | | | | | | PRODUCTS - COMP/OP AGG \$ 2,000,000 | |
| | | | | | | | General Agg Cap \$ 10,000,000 | |
| | | | | | | | COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 | |
| | | | | | | | BODILY INJURY (Per person) \$ | |
| | | | | | | | BODILY INJURY (Per accident) \$ | |
| PROPERTY DAMAGE (Per accident) \$ | | | | | | | | |
| | | | | | | | \$ | |
| B | AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY | | | FA19NCP02120603 | 11/15/2022 | 11/15/2023 | BODILY INJURY (Per person) \$ | |
| | | | | | | | BODILY INJURY (Per accident) \$ | |
| | | | | | | | PROPERTY DAMAGE (Per accident) \$ | |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| A | <input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$ | | | HO22NP3Z03E19IC | 11/15/2022 | 11/15/2023 | EACH OCCURRENCE \$ 10,000,000 | |
| | | | | | | | AGGREGATE \$ 10,000,000 | |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| C | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory In NH) If yes, describe under DESCRIPTION OF OPERATIONS below | Y/N <input checked="" type="checkbox"/> N N/A | | M1335701 | 11/15/2022 | 11/15/2023 | <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER | |
| | | | | | | | E.L. EACH ACCIDENT \$ 1,000,000 | |
| | | | | | | | E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 | |
| | | | | | | | E.L. DISEASE - POLICY LIMIT \$ 1,000,000 | |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| | | | | | | | | \$ |
| A | Pollution Liability | | | HO22NP3Z03E19IC | 11/15/2022 | 11/15/2023 | See Attached Limits | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

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

CERTIFICATE HOLDER

CANCELLATION

For Bid Purposes Only

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

AUTHORIZED REPRESENTATIVE

**ADDITIONAL REMARKS SCHEDULE**Page **1** of **1**

| | | | |
|-------------------------------------|-----------------------------|---|--|
| AGENCY Carlisle Insurance | | NAMED INSURED Pencco, Inc. 831 Bartlett Rd. Sealy, TX 77474 | |
| POLICY NUMBER SEE PAGE 1 | | | |
| CARRIER SEE PAGE 1 | NAIC CODE SEE P 1 | EFFECTIVE DATE: SEE PAGE 1 | |

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: **ACORD 25** FORM TITLE: **Certificate of Liability Insurance****Additional Coverages & Endorsements:**

Additional Insured endorsement included on the General Liability & Automobile Liability policies when there is a written contract between the Named Insured and the Certificate Holder requiring such status. Additional Insured Endorsement applies on a Primary & Non-Contributory basis when required in a written contract.

30 day notice of cancellation to the certificate holder, except 10 days for non-payment of premium on the General Liability, Auto Liability, Excess Liability and Workers' Compensation Policies.

Blanket Waiver of Subrogation when required by written contract on the General Liability, Auto Liability, Excess Liability and Workers' Compensation Policies.

The General Liability Policy includes the following Pollution Liability coverages:

Products Pollution Liability Limit: \$1,000,000;

Contractors Pollution Liability Limit: \$1,000,000;

Transportation Pollution Liability Limit: \$1,000,000;

Contractors Pollution & Transportation Pollution Aggregate: \$2,000,000

Non-Owned Disposal Site Pollution Liability (Claims-made): Limit: \$1,000,000; Aggregate: \$2,000,000



SAFETY DATA SHEET

Liquid aluminium sulfate

According to Regulation (EU) No 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

| | |
|---------------------------|---|
| Product name | Liquid aluminium sulfate |
| Other names | Aluminum sulphate solution |
| CAS No | Al ₂ (SO ₄) ₃ : 10043-01-3 |
| Other CAS No | Al ₂ (SO ₄) ₃ ·14 H ₂ O: 16828-12-9 Al ₂ (SO ₄) ₃ ·16 H ₂ O: 16828-11-8 Al ₂ (SO ₄) ₃ ·18 H ₂ O: 7784-31-8 |
| REACH Registration number | 01-2119531538-36-xxxx |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|----------------------|---|
| Identified uses | Water treatment chemical, Use of substance in synthesis as a process chemical and as an intermediate, Products such as pH-regulators, flocculants, precipitants, neutralization agents. |
| Uses advised against | Do not use for other purposes than the identified uses. |

1.3. Details of the supplier of the safety data sheet

| | |
|----------|--|
| Supplier | Hicri Ercili Deniz Nakliyat Kimyevi Maddeler San. ve Tic. Ltd. Sti. 600 Evler Mahallesi Balıkesir Asfaltı Sag Taraf No:72 Bandırma / BALIKESIR / TURKEY Tel: 0 266 721 06 70 - 5 Lines Fax: 0 266 721 06 74 |
|----------|--|

1.4. Emergency telephone number

HICRI ERCİLİ: 532-6851382- 533-9386700 (7/24)
Contact person: İbrahim BARBAROS (Mr) - Esra ŞEN (Ms)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

| | |
|-------------------------------|---------------------|
| Physical and Chemical Hazards | Met. Corr. 1 - H290 |
| Human health | Eye dam. 1 - H318 |
| Environment | Not classified. |

The Full Text for all Hazard Statements are Displayed in Section 16.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008

CAS No: 10043-01-3





SAFETY DATA SHEET

Liquid aluminium sulfate

According to Regulation (EU) No 2015/830

| | | |
|--------------------------|--------------|--|
| Signal Word | Danger | |
| Hazard Statements | H290 | May be corrosive to metals. |
| | H318 | Causes serious eye damage. |
| Precautionary Statements | P261 | Avoid breathing dust. |
| | P264 | Wash skin thoroughly after handling. |
| | P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| | P305+351+338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| | P310 | Immediately call a POISON CENTER/doctor. |

2.3. Other hazards

Inhalation; Possible risk for irritation of respiratory organs and skin.

Potential environmental effects; May lower the pH of water and thus be harmful to aquatic organisms.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

| | |
|---------------------------|--|
| Product Name | Aluminium sulphate |
| REACH Registration number | 01-2119531538-36-xxxx |
| Chemical Formula | Al ₂ (SO ₄) ₃ ·x H ₂ O |
| Chemical Name | Aluminium sulphate |
| Content | 48-52 % |
| CAS-No. | 10043-01-3 |
| EC No. | 233-135-0 |
| Other CAS No | Al ₂ (SO ₄) ₃ ·14 H ₂ O: 16828-12-9 |
| | Al ₂ (SO ₄) ₃ ·16 H ₂ O: 16828-11-8 |
| | Al ₂ (SO ₄) ₃ ·18 H ₂ O: 7784-31-8 |

Composition Comments

- The data shown are in accordance with the latest EC Directives.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion

Rinse mouth with water. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing.

Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing.

Eye contact

Important! Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If possible use lukewarm water. Consult a physician. Do not rub the eyes, mechanical irritation. Continue rinsing eyes during transport to hospital.



SAFETY DATA SHEET
Liquid aluminium sulfate
According to Regulation (EU) No 2015/830

4.2. Most important symptoms and effects, both acute and delayed

Corrosive effects, May cause irreversible eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Not combustible. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Heating above the decomposition temperature will release toxic gases (Sulphur oxides (SO_x)).

5.3. Advice for firefighters

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk. Keep run-off water out of sewers and water sources.
Dike for water control.

Protective equipment for fire-fighters

Face mask, protective gloves and safety helmet.
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet. Do not smoke, use open fire or other sources of ignition.
Avoid inhalation of vapour. Avoid contact with eyes and prolonged skin contact. Provide adequate ventilation.

6.2. Environmental precautions

Avoid discharge into water courses or onto the ground. Must be disposed of in accordance with local and national regulations.

6.3. Methods and material for containment and cleaning up

Take with absorbent material. Must be disposed of in accordance with local and national regulations.

6.4. Reference to other sections

For personal protection, see section 8.
See section 11 for additional information on health hazards.
For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Read and follow manufacturer's recommendations. Do not eat, drink or smoke when using the product. Avoid inhalation of vapour and contact with skin and eyes. Observe good chemical hygiene practices. Mechanical ventilation or local exhaust ventilation is required. The product is hygroscopic. Danger for slipping.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs. Avoid freezing. Avoid high temperatures. Keep away from incompatible materials.
Suitable packaging material: Plastic (PE, PP, PVC), fiberglass-reinforced polyester, epoxy-coated concrete, titanium, acidproof or rubber-coated steel.

7.3. Specific end use(s)

For further information see attached Exposure Scenario.



SAFETY DATA SHEET

Liquid aluminium sulfate

According to Regulation (EU) No 2015/830

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

| Name | STD | TWA - 8 Hrs | STEL - 15 Min | Notes |
|--------------------|-----|-------------|---------------------|-------|
| Aluminium sulphate | WEL | --- | 2 mg/m ³ | --- |

Ingredient Comments

WEL = Workplace Exposure Limits

Derivation of DNEL(s) / DMEL(s)

DN(M)ELs for workers- Sulfuric acid, aluminum salt (3:2), tetradecahydrate

| Exposure pattern | Route | Justification |
|------------------------------|--------|--|
| Long-term - systemic effects | Dermal | 3.8 mg/kg bw/day, Most sensitive endpoint: Neurotoxicity (oral) |
| Long-term - systemic effects | Oral | 13.4 mg/m ³ , Most sensitive endpoint: Neurotoxicity (oral) |

DN(M)ELs for workers- Aluminium sulphate

| Exposure pattern | Route | Justification |
|------------------------------|------------|--|
| Acute - systemic effects | Dermal | Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |
| Acute - systemic effects | Inhalation | Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |
| Acute - local effects | Dermal | Dermal load is very unlikely, but assuming that it occurs the user will have reacted on the burning/itching skin sensation and will automatically start using gloves. Concentrated solutions of the substance may be corrosive (pH < 2 or less) to skin and eye. At concentrations lower than those that cause corrosion, the substance will have no local effect and systemic toxicity. Dermal exposures should be regulated on the basis of risk to local effects (irritation, corrosion) on the skin. Further tests on this compound are therefore not necessary; this data requirement is not triggered. |
| Acute - local effects | Inhalation | Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |
| Long-term - systemic effects | Dermal | Dermal load is very unlikely, but assuming that it occurs the user will have reacted on the burning/itching skin sensation and will automatically start using gloves. Concentrated solutions of the substance may be corrosive (pH < 2 or less) to skin and eye. At concentrations lower than those that cause corrosion, the substance will have no local effect and systemic toxicity. Dermal exposures should be regulated on the basis of risk to local effects (irritation, corrosion) on the skin. Further tests on this compound are therefore not necessary; this data requirement is not triggered. |



SAFETY DATA SHEET

Liquid aluminium sulfate

According to Regulation (EU) No 2015/830

| Exposure pattern | Route | Descriptor | DNEL / DMEL | (Corrected) Dose descriptor *) | Most sensitive endpoint |
|------------------------------|------------|--------------------------------|------------------------|---|-------------------------|
| Long-term - systemic effects | Inhalation | DNEL (Derived No Effect Level) | 20.2 mg/m ³ | NOAEC: 505.0 mg/m ³ (based on AF of 25) | neurotoxicity |

Justification

For the DNEL derivation ECETOC (2010) and ECHA Guidance (2008) is followed. For the intraspecies (worker) the default value of ECETOC - AF 3 is used. Further for interspecies (allometric scaling) AF of 1 and an extra AF of 2.5 for the intraspecies (remaining differences) and for the adequacy / quality of database AF 2 from the ECHA is used. The Inhalation DNEL long term is derived for systemic effects (most critical neurotoxicity) based on one year developmental and chronic neurotoxic oral rat study of aluminium citrate with rats (2010) The NOAEL (neurotoxicity) from this study was found to be 323 mg Al Citrate / kg bw/day [equivalent with 30 mg Al 3+/kg bw / day]. The NOAEL of Aluminum citrate is recalculated to a NOAEL of 345 mg/kg bw/ day for the aluminium substance, using the aluminium content.

| Exposure pattern | Route | Justification |
|---------------------------|------------|--|
| Long-term - local effects | Dermal | Dermal load is very unlikely, but assuming that it occurs the user will have reacted on the burning/itching skin sensation and will automatically start using gloves. Concentrated solutions of the substance may be corrosive (pH < 2 or less) to skin and eye. At concentrations lower than those that cause corrosion, the substance will have no local effect and systemic toxicity. Dermal exposures should be regulated on the basis of risk to local effects (irritation, corrosion) on the skin. Further tests on this compound are therefore not necessary; this data requirement is not triggered. |
| Long-term - local effects | Inhalation | Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |

*) The (corrected) dose descriptor starting points have been automatically calculated by multiplying the values of the fields "D(N)MEL" and "Assessment factor" provided in the Endpoint summary of IUCLID section 7. Toxicological information. It reflects the value after any corrections, e.g. route-to-route extrapolation. See column "Justification" for the rationale behind such modifications and the use of assessment factors.

DN(M)ELs for the general population- Aluminium sulphate

| Exposure pattern | Route | Justification |
|--------------------------|------------|--|
| Acute - systemic effects | Dermal | Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |
| Acute - systemic effects | Inhalation | Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |
| Acute - systemic effects | Oral | Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |
| Acute - local effects | Dermal | Not relevant. Dermal load is very unlikely, but assuming that it occurs the user will have reacted on the burning/itching skin sensation and will automatically start using gloves. Concentrated solutions of the substance may be corrosive (pH < 2 or less) to skin and eye. At concentrations lower than those that cause corrosion, the substance will have no local effect and systemic toxicity. Dermal exposures should be regulated on the basis of risk to local effects (irritation, corrosion) on the skin. Further tests on this compound are therefore not necessary; this data requirement is not triggered. |



SAFETY DATA SHEET

Liquid aluminium sulfate

According to Regulation (EU) No 2015/830

| Exposure pattern | Route | Justification |
|------------------------------|------------|--|
| Acute - local effects | Inhalation | Not relevant. Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |
| Long-term - systemic effects | Dermal | Not relevant. Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |
| Long-term - systemic effects | Inhalation | Not relevant. Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |

| Exposure pattern | Route | Descriptor | DNEL / DMEL | (Corrected) Dose descriptor *) | Most sensitive endpoint |
|------------------------------|-------|--------------------------------|------------------|--|-------------------------|
| Long-term - systemic effects | Oral | DNEL (Derived No Effect Level) | 3.4 mg/kg bw/day | NOAEL: 340.0 mg/kg bw/day (based on AF of 100) | neurotoxicity |

Justification

For the DNEL derivation ECETOC (2010) and ECHA Guidance (2008) is followed. For the intraspecies (worker) the default value of ECETOC - AF 5 is used. Further for interspecies (allometric scaling) AF of 4 is used. An extra AF of 2.5 for the intraspecies (remaining differences) and for the adequacy / quality of database AF 2 from the ECHA is used. The Inhalation DNEL long term is derived for systemic effects (most critical neurotoxicity) based on one year developmental and chronic neurotoxic oral rat study of aluminium citrate with rats (2010). The NOAEL (neurotoxicity) from this study was found to be 323 mg Al Citrate / kg bw/day [equivalent with 30 mg Al 3+/kg bw / day]. The NOAEL of Aluminum citrate is recalculated to a of NOAEL 345 mg/kg bw/ day for the aluminium substance, using the aluminium content.

| Exposure pattern | Route | Justification |
|---------------------------|------------|--|
| Long-term - local effects | Dermal | Not relevant. Dermal load is very unlikely, but assuming that it occurs the user will have reacted on the burning/itching skin sensation and will automatically start using gloves. Concentrated solutions of the substance may be corrosive (pH < 2 or less) to skin and eye. At concentrations lower than those that cause corrosion, the substance will have no local effect and systemic toxicity. Dermal exposures should be regulated on the basis of risk to local effects (irritation, corrosion) on the skin. Further tests on this compound are therefore not necessary; this data requirement is not triggered. |
| Long-term - local effects | Inhalation | Not relevant. Not relevant. Based on the physical and chemical properties, the hazard assessment and use of the substance. |

*) The (corrected) dose descriptor starting points have been automatically calculated by multiplying the values of the fields "D(N)MEL" and "Assessment factor" provided in the Endpoint summary of IUCLID section 7. Toxicological information. It reflects the value after any corrections, e.g. route-to-route extrapolation. See column "Justification" for the rationale behind such modifications and the use of assessment factors.

Predicted No Effect Concentration (PNEC) - Aluminium sulphate

PNEC water

freshwater 0.3 µg/l
marine 0.03 µg/l



SAFETY DATA SHEET

Liquid aluminium sulfate

According to Regulation (EU) No 2015/830

PNEC sediment

The risks for sediment dwelling organisms are negligible because the bioavailability of aluminum in sediment is low. In general, the solubility and mobility of aluminum in sediment is greatest when the sediment is rich in organic matter capable of forming aluminum-organic complexes and when the pH is low.

The PNEC value would be highly depending on environmental conditions as pH and organic matter, and therefore a true PNEC cannot and does not need to be derived.

PNEC soil

The PNEC is 1 mg/kg dw at a pH of 3.4. At higher pH levels the PNEC value will be higher.

PNEC for sewage treatment plant

The EC10 is 200 mg/l Al, this gives a PNEC of 20 mg/l Al.

8.2. Exposure controls

Protective equipment



Process conditions

Provide eyewash station.

Engineering measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Respiratory equipment

In case of inadequate ventilation or risk of inhalation of dust, use half mask with dust filter P2.

Hand protection

For prolonged or repeated skin contact use suitable protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Glove material: PVC and neoprene gloves.

Eye protection

If risk of splashing, wear safety goggles or face shield (EN 166).

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

Skin protection

Wear apron or protective clothing in case of contact.

Environmental Exposure Controls

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|----------------------|--------------------|
| Appearance | Liquid. |
| Colour | No data available. |
| Odour | No data available. |
| Solubility | Soluble in water. |
| Melting point | No data available. |
| Boiling Point | No data available. |



SAFETY DATA SHEET **Liquid aluminium sulfate**

According to Regulation (EU) No 2015/830

| | |
|---------------------------------|-------------------------------|
| pH Value | 1.90-2.70 |
| Decomposition temperature | No data available. |
| Flash point | No data available. |
| Flammability (solid, gas) | No data available. |
| Density | 1.320-1.340 g/cm ³ |
| Explosion Limits – Lower/ Upper | No data available. |
| Viscosity, kinematic | No data available. |
| Oxidising properties | No data available. |

9.2. Other information

| | |
|-----------------------------|-------|
| Crystallization temperature | -7 °C |
|-----------------------------|-------|

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Bases, non-acid proof metals (for example aluminium, copper and iron)
Avoid contact with unalloyed steel or galvanized surfaces.

10.6. Hazardous decomposition products

Sulphur oxides (SO_x).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Based on available data the classification criteria are not met.

Aluminium sulphate:

LD50/Oral/Rat: > 2,000 mg/kg

Not classified as harmful if swallowed.

LC50/Inhalation/Rat: > 5 mg/l

Remarks: No known significant effects or critical hazards., Read-across (Analogy), CAS-No., 39290-78-3

LD50/Dermal/Rabbit: > 5,000 mg/kg

Not classified as harmful to health.

Sulfuric acid, aluminum salt (3:2), tetradecahydrate:

LD50/Oral/Rat: > 2,000 mg/kg

Remarks: CAS-No., 10043-01-3

Not classified as harmful if swallowed.

LC50/Inhalation/Rat: > 5 mg/l

Remarks: No known significant effects or critical hazards, Read-across (Analogy), CAS-No., 39290-78-3



SAFETY DATA SHEET
Liquid aluminium sulfate
According to Regulation (EU) No 2015/830

LD50/Dermal/Rabbit: > 5,000 mg/kg
Not classified as harmful to health.

Skin corrosion/irritation

Based on available data the classification criteria are not met.
Repeated or prolonged skin contact may cause: Skin irritation dry skin.

Aluminium sulphate:

Skin: Rabbit/OECD Test Guideline 404: No skin irritation

Sulfuric acid, aluminum salt (3:2), tetradecahydrate:

Skin: Rabbit/OECD Test Guideline 404: No skin irritation
Remarks: CAS-No. 10043-01-3

Serious eye damage/irritation

Causes serious eye damage.

Aluminium sulphate:

Eyes: Rabbit/OECD Test Guideline 405: Severe eye irritation
May cause irreversible eye damage.

Sulfuric acid, aluminum salt (3:2), tetradecahydrate:

Eyes: Rabbit/OECD Test Guideline 405: Severe eye irritation
Remarks: May cause irreversible eye damage.
Respiratory or skin sensitisation
Based on available data the classification criteria are not met.

Aluminium sulphate:

Guinea pig/OECD Test Guideline 406
Remarks: Read-across (Analogy) CAS-No. 1327-41-9
Not sensitizing.

Germ cell mutagenicity (In Vitro/ In Vivo)

Based on available data the classification criteria are not met.

Aluminium sulphate:

Mutagenicity (Salmonella typhimurium - reverse mutation assay)/AMES test/OECD Test Guideline 471:
Result: negative
Metabolic activation: with and without

In vitro mammalian cells/micronucleus test/OECD Test Guideline 487:

Result: negative
Metabolic activation: with and without

In vitro gene mutation study in mammalian cells/Lymphoma/OECD Test Guideline 476:

Result: negative
Metabolic activation: with and without

Sulfuric acid, aluminum salt (3:2), tetradecahydrate:

Mutagenicity (Salmonella typhimurium - reverse mutation assay)/AMES test/OECD Test Guideline 471:
Result: negative
Metabolic activation: with and without

In vitro mammalian cells/micronucleus test/OECD Test Guideline 487:

Result: negative
Metabolic activation: with and without

In vitro gene mutation study in mammalian cells/Lymphoma/OECD Test Guideline 476:

Result: negative
Metabolic activation: with and without



SAFETY DATA SHEET
Liquid aluminium sulfate
According to Regulation (EU) No 2015/830

Carcinogenicity

Based on available data the classification criteria are not met.

Aluminium sulphate:

Oral/Rat/2 years:

Did not show carcinogenic effects in animal experiments.

Sulfuric acid, aluminum salt (3:2), tetradecahydrate:

Oral/Rat/2 years:

Did not show carcinogenic effects in animal experiments.

Reproductive Toxicity

Based on available data the classification criteria are not met.

Aluminium sulphate:

Oral/Rat/female/Reproductive effects/OECD Test Guideline 452:

NOAEL: 3,225 mg/kg

NOAEL F1:

Remarks: bw/day Read-across (Analogy) CAS-No. 31142-56-0

Not believed to be toxic for reproduction.

Oral/Rat/female/Reproductive effects/OECD Test Guideline 452:

NOAEL: 300 mg/kg

NOAEL F1:

Remarks: bw/day Calculated as AI Read-across (Analogy) CAS-No. 31142-56-0

Oral/Rat/male and female/Developmental toxicity test/OECD Test Guideline 422:

NOAEL: 1,000 mg/kg

NOAEL F1: 1,000 mg/kg

Remarks: bw/day Read-across (Analogy) CAS-No. 1327-41-9

Not believed to be toxic for reproduction. In animal studies, did not interfere with reproduction.

Oral/male and female/OECD Test Guideline 422:

NOAEL: 90 mg/kg

NOAEL F1: 90 mg/kg

Remarks: bw/day Calculated as AI Read-across (Analogy) CAS-No. 1327-41-9

Sulfuric acid, aluminum salt (3:2), tetradecahydrate:

Oral/Rat/female/Reproductive effects/OECD Test Guideline 452:

NOAEL: 3,225 mg/kg

NOAEL F1:

Remarks: bw/day Read-across (Analogy) CAS-No. 31142-56-0

Not believed to be toxic for reproduction.

Oral/Rat/female/Reproductive effects/OECD Test Guideline 452:

NOAEL: 300 mg/kg

NOAEL F1:

Remarks: bw/day Calculated as AI Read-across (Analogy) CAS-No. 31142-56-0

Not believed to be toxic for reproduction.

Rat/male and female/Screening test/OECD Test Guideline 422:

NOAEL: 1,000 mg/kg

NOAEL F1: 1,000 mg/kg

Remarks: bw/day Read-across (Analogy) CAS-No. 1327-41-9

No known effect.

Male and female/OECD Test Guideline 422:

NOAEL: 90 mg/kg

NOAEL F1: 90 mg/kg

Remarks: bw/day Calculated as AI Read-across (Analogy) CAS-No. 1327-41-9



SAFETY DATA SHEET

Liquid aluminium sulfate

According to Regulation (EU) No 2015/830

Teratogenicity

Aluminium sulphate:

Oral/Rat/OECD Test Guideline 452:

NOAEL: 323 mg/kg

Mother: 3,225 mg/kg bw/day Read-across (Analogy) CAS-No. 31142-56-0

Oral/Rat/OECD Test Guideline 452:

NOAEL: 30 mg/kg

Mother: 300 mg/kg bw/day Calculated as Al CAS-No. 31142-56-0 Read-across (Analogy)

Sulfuric acid, aluminum salt (3:2), tetradecahydrate:

Oral/Rat/OECD Test Guideline 452:

NOAEL: 323 mg/kg

Mother: 3,225 mg/kg bw/day Read-across (Analogy) CAS-No. 31142-56-0

Oral/Rat/OECD Test Guideline 452:

NOAEL: 30 mg/kg

Mother: 300 mg/kg bw/day Calculated as Al CAS-No. 31142-56-0 Read-across (Analogy)

STOT Specific target organ toxicity - single exposure

Based on available data the classification criteria are not met.

STOT Specific target organ toxicity - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

Human experience

Inhalation

Symptoms: Cough and difficulties in breathing.

Skin contact

Symptoms: Effects of repeated or prolonged skin contacts may include: Dry skin, irritation.

Eye contact

Symptoms: Contact with eyes causes a smarting pain and a flood of tears. Risk of serious damage to eyes.

Remarks: The product may harm the cornea by mechanical action.

Ingestion

Symptoms: Ingestion may provoke the following symptoms:

Nausea, Vomiting, irritation of mouth, oesophagus and stomach.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

This material is not classified as dangerous for the environment. At environmentally relevant pH 5.5 – 8, the solubility of aluminium is low. Aluminium salts dissociate with water resulting in rapid formation and precipitation of aluminium hydroxides. At pH <5.5, the free ion (Al³⁺) becomes the prevalent form, the increased availability at this pH is reflected in higher toxicity. At pH 6.0– 7.5, solubility declines due to the presence of insoluble Al(OH)₃. At higher pH (pH >8.0), the more soluble Al(OH)₄⁻ species predominate, which again increases availability. Aluminium salts must not be released to rivers and lakes in an uncontrolled way and pH variations around 5 - 5.5 should be avoided.

Aluminium sulphate:

LC50/96 h/Danio rerio/semi-static test/OECD Test Guideline 203: > 562 mg/l

NOEC/96 h/Danio rerio/semi-static test/OECD Test Guideline 203: > 562 mg/l

LC50/96 h/Danio rerio/semi-static test/OECD Test Guideline 203: > 0.247 mg/l

Calculated as Al Maximum soluble concentration under the test conditions.



SAFETY DATA SHEET

Liquid aluminium sulfate

According to Regulation (EU) No 2015/830

EC50/48 h/Daphnia magna (Water flea)/semi-static test/OECD Test Guideline 202: > 90 mg/l
NOEC/48 h/Daphnia magna (Water flea)/semi-static test/OECD Test Guideline 202: > 90 mg/l
LC50/48 h/Daphnia magna (Water flea)/OECD Test Guideline 202: > 0.176 mg/l
Calculated as AI Maximum soluble concentration under the test conditions.

EC50/72 h/Pseudokirchneriella subcapitata (green algae)/static test/OECD Test Guideline 201: 24 mg/l
EC50/72 h/Pseudokirchneriella subcapitata (green algae)/static test/OECD Test Guideline 201: 3.8 mg/l Calculated as AI
NOEC/72 h/Pseudokirchneriella subcapitata (green algae)/static test/OECD Test Guideline 201: 1.7 mg/l
NOEC/72 h/Pseudokirchneriella subcapitata (green algae)/static test/OECD Test Guideline 201: 0.27 mg/l Calculated as AI

Sulfuric acid, aluminum salt (3:2), tetradecahydrate:

LC50/96 h/Danio rerio/semi-static test/OECD Test Guideline 203: > 1,000 mg/l
NOEC/Danio rerio/semi-static test/OECD Test Guideline 203: > 1,000 mg/l
LC50/Danio rerio/semi-static test/OECD Test Guideline 203: > 0.247 mg/l
Calculated as AI Maximum soluble concentration under the test conditions.

EC50/48 h/Daphnia magna (Water flea)/semi-static test/OECD Test Guideline 202: > 160 mg/l
NOEC/48 h/Daphnia magna (Water flea)/semi-static test/OECD Test Guideline 202: > 160 mg/l
EC50/48 h/Daphnia magna (Water flea)/semi-static test/OECD Test Guideline 202: > 0.176 mg/l
Calculated as AI Maximum soluble concentration under the test conditions.

EC50/72 h/Pseudokirchneriella subcapitata (green algae)/static test/OECD Test Guideline 201: > 41.5 mg/l
EC50/72 h/Pseudokirchneriella subcapitata (green algae)/static test/OECD Test Guideline 201: 3.8 mg/l Calculated as AI
NOEC/72 h/Pseudokirchneriella subcapitata (green algae)/static test/OECD Test Guideline 201: 3.0 mg/l
NOEC/72 h/Pseudokirchneriella subcapitata (green algae)/static test/OECD Test Guideline 201: 0.27 mg/l Calculated as AI

12.2. Persistence and degradability

Biological degradability:

The methods for determining the biological degradability are not applicable to inorganic substances.

Chemical degradation:

Remarks: Reaction with water forms aluminium hydroxide precipitates.

12.3. Bioaccumulative potential

The product is not expected to bioaccumulate.

12.4. Mobility in soil

Mobility

The product is soluble in water.

12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Other adverse effects

May lower the pH of water and thus be harmful to aquatic organisms.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Dispose of on site landfill area.



SAFETY DATA SHEET
Liquid aluminium sulfate
According to Regulation (EU) No 2015/830

SECTION 14: TRANSPORT INFORMATION

General Limited quantities derogation may be applicable to this product, please check transport documents.

14.1. UN number

| | |
|----------------------|------|
| UN No. (ADR/RID/ADN) | 3264 |
| UN No. (IMDG) | 3264 |
| UN No. (ICAO) | 3264 |

14.2. UN proper shipping name

| | |
|----------------------|--|
| Proper Shipping Name | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Aluminium sulphate) |
|----------------------|--|

14.3. Transport hazard class(es)

| | |
|---------------------|--------------------------------|
| ADR/RID/ADN class | 8 |
| ADR/RID/ADN class | Class 8: Corrosive substances. |
| ADR Label No. | 8 |
| IMDG class | 8 |
| ICAO class/division | 8 |
| Transport labels | |



14.4. Packing group

| | |
|---------------------------|-----|
| ADR/RID/ADN packing group | III |
| IMDG packing group | III |
| ICAO packing group | III |

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user

| | |
|------------------------------------|----------|
| EMS | F-A, S-B |
| ADR transport category | 3 |
| Emergency Action Code | 2X |
| Hazard Identification No (ADR/RID) | 80 |
| Tunnel restriction code | (E) |

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Uk Regulatory References
Chemicals (Hazard Information & Packaging) Regulations.



SAFETY DATA SHEET **Liquid aluminium sulfate**

According to Regulation (EU) No 2015/830

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).
Control of Substances Hazardous to Health.

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37.
CHIP for everyone HSG(108).

EU Legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

15.2. Chemical Safety Assessment

Chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Abbreviations used in safety data sheet

ADR: European Agreement on International Carriage of Dangerous Goods by Road.

ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.

RID: European Agreement on International Carriage of Dangerous Goods by Rail.

IATA: International Air Transport Association.

ICAO-TI: Technical Specification for Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

TWA: Time weighted average

ATE: Estimated value of acute toxicity

EC No: European Community number

CAS: Chemical Theory Service.

LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).

LC50: Substance concentration causing 50% (half) death in the test animals group.

EC50: Effective Concentration of the substance causing the maximum of 50%.

PBT: Persistent, Bioaccumulative and Toxic substance.

vPvB: Very Permanent, Very Biofriendly.

SEA: Classification, labeling, packaging regulation

DNEL: Derivative Inactive Level

PNEC: Estimated Unaffected Concentration

BHOT: Specific Target Organ Toxicity

Information Sources

This SDS is written based on the information received from rawmaterial supplier.
European Chemicals Agency (ECHA)

Revision Comments

Revised section 15.2.

Hazard Statements In Full

H290 May be corrosive to metals.

H318 Causes serious eye damage.

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SAFETY DATA SHEET

Liquid aluminium sulfate

According to Regulation (EU) No 2015/830

Issued Note

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ANALYSIS REPORT

LIQUID ALUMINUM SULFATE ANALYSIS RESULTS AS FOLLOWS.

| LIQUID ALUMINUM SULFATE 48% | | |
|---|-----------------|---------------|
| PHYSICAL AND CHEMICAL SPECIFICATIONS | LIMITS | VALUES |
| Appearance | CLEAR LIQUID | CLEAR LIQUID |
| Al ₂ O ₃ amount | 8 % min. | 8.40 % ±0,10 |
| Fe | 1,6 g/kg Al max | 1.07 g/kg Al |
| Water insoluble material | 0,20 % max | 0.02% |
| Ph | 2-3 | 2,45 ±0,10 |
| Concentration | 48-52 % | 48 % |
| Density (gr / cm ³) , 20 °C | 1,320 - 1,340 | 1,320 ± 0,005 |
| Arsenic (As) max. | 14mg/kg Al | 0.3 mg/kg Al |
| Cadmium (Cd) max. | 3 mg/kg Al | 0.1 mg/kg Al |
| Chrome (Cr) max. | 30 mg/kg Al | 1.5 mg/kg Al |
| Mercury (Hg) max. | 4 mg/kg Al | 0.5 mg/kg Al |
| Nickel (Ni) max. | 20 mg/kg Al | 0.7 mg/kg Al |
| Lead (Pb) max. | 40 mg/kg Al | <3.2 mg/kg Al |
| Antimony (Sb) max. | 20 mg/kg Al | <4,3 mg/kg Al |
| Selenium (Se) max. | 20 mg/kg Al | <4,3 mg/kg Al |