

REQUEST FOR BIDS

The City of Las Vegas, New Mexico will open Sealed Bids at 3:00 p.m., Sept 14, at the City Council Chambers, 1700 North Grand Avenue, Las Vegas, New Mexico, or other designated area at the City Offices; ON THE FOLLOWING:

LIQUID ALUMINUM SULFATE (LIQUID ALUM)

The BIDDING FORMS AND TECHNICAL SPECIFICATIONS may be examined at the following location: **1700 N. GRAND AVE LAS VEGAS NM 87701 phone (505) 454-1401**

Copies of the BIDDING FORMS AND TECHNICAL SPECIFICATIONS may be examined at the following location: City Clerk's Office at 1700 North Grand Avenue, Las Vegas, NM 87701 or www.lasvegasnm.gov

Mailed bids should be addressed to the City Clerk, 1700 N. Grand Ave., Las Vegas, New Mexico 87701; with the envelope marked: **LIQUID ALUMINUM SULFATE (LIQUID ALUM)**

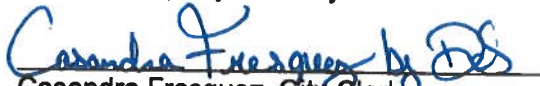
Opening No. 2022-07; on the lower left-hand corner of the submitted envelope. It shall be the responsibility of the Offeror to see that their bid is delivered to the City Clerk by the date and time set for the bid request. If the mail or delivery of bid request is delayed beyond the opening date and time, bid thus delayed will not be considered. A public opening will be held and any bidder or their authorized representative is invited to attend.

The City of Las Vegas reserves the right to reject any/or all bids submitted.

CITY OF LAS VEGAS,


Leo J. Maestas, City Manager 8/6/21


Scott Aaron, City Attorney 8/4/21


Casandra Fresquez, City Clerk


Jesus Baquera, Finance Director 7-6-21


Helen Vigil, Purchasing Officer

Opening No. 2022-07

Date Issued: 8/12/2021

Published: LAS VEGAS OPTIC Aug 20 2021
ALBUQUERQUE JOURNAL Aug 20 2021
www.lasvegasnm.gov Aug 20 2021

BIDDER INFORMATION

OFFEROR: _____

AUTHORIZED AGENT: _____

ADDRESS: _____

TELEPHONE NUMBER (____) _____

FAX NUMBER (____) _____

DELIVERY: _____

STATE PURCHASING RESIDENT CERTIFICATION NO.: _____

NEW MEXICO CONTRACTORS LICENSE NO.: _____

BID ITEM (S): **LIQUID ALUMINUM SULFATE (LIQUID ALUM)**

ITEM (S) UNDER THIS BID ARE TO BE F.O.B. LAS VEGAS, NEW MEXICO 87701. THE CITY OF LAS VEGAS RESERVES THE RIGHT REJECT ANY OR ALL BIDS AND TO WAIVE ANY TECHNICAL IRREGULARITY IN THE FORM OF THE BID.

AFFIDAVIT FOR FILING WITH COMPETITIVE BID

STATE OF _____ }

COUNTY OF _____ } ss

I, _____, being of first duly sworn, state under penalty of perjury that I am at least eighteen years of age, and am the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any city official or employee as to the terms of said prospective contract, or any other terms of said prospective contract; or in any discussion between bidders with any city official concerning an exchange of money or any other thing of value for special consideration in the letting of a contract.

Signature

Subscribed and sworn to before me, this _____ day of _____, 20_____.

(SEAL)

Notary Public Signature

My Commission Expires: _____

STANDARD BID CLAUSES

AWARDED BID

Awarding of bid shall be made to the responsible Bidder whose Bid best meets the required specifications. The City of Las Vegas (City) reserves the right to reject or accept any of all Bid specifications and to waive any insubstantial irregularity in the form of the Bid.

TIMETABLE

Bid pursuant to this request must be received at the City Clerk's Office at 1700 North Grand Avenue, Las Vegas, New Mexico, on or before: Sept 14, 2021; 3:00 p.m.; at which time all bids received will be opened. An opening will occur at the City's Council Chambers or other designated area at the City Offices. Awarding of Bid is projected for _____, 2021. The successful Bidder will be notified by mail.

ENVELOPES

Sealed Bid envelopes shall be clearly marked on the lower left-hand corner, identified by the Bid Name and Opening Number. Failure to comply with this requirement may result in the rejection of the submitted Bid.

BRIBERY AND KICKBACK

The Procurement Code (NMSA 13-1-28 through 13-1-199) imposes a third degree felony penalty for bribery of a public official or public employee. In addition, the New Mexico Criminal Statutes (NMSA 30-24-1 and 30-24-2) state that it is a third degree felony to commit the offense of demanding or receiving a bribe by a public official or public employee, and it is a fourth degree felony to commit the offense of soliciting or receiving illegal kickbacks. NMSA 30-41-1 through 30-41-3 include that it is a fourth degree felony to commit the offense of offering or paying illegal kickbacks.

NON-COLLUSION

In signing their Bid and Affidavit, the Bidder certifies that he/she has not, either directly or indirectly, entered into action of restraint of free competition, in connection with the submitted bid.

RESPONSIBILITY OF BIDDER

At all times it shall be the responsibility of the Bidder to see that their bid is delivered to the City Clerk by the Date and Time scheduled for opening. If the mail or delivery of said Bid is delayed beyond the scheduled opening date and time set, this bid will not be considered.

CLARIFICATION OF BID

Bidder requiring clarification or interpretation of Bid specifications shall make a written request to the Department involved in this bid request at least five (5) days prior to the scheduled bid opening date; with a copy forwarded to the Finance Department. Any interpretation, corrections, or changes of said Bid Specifications, Opening Date, or Time Change will be made by Addendum only. Interpretations, Corrections or changes of said Bid made in any other manner will not be binding and the Bidder shall not rely upon such interpretation, corrections and changes.

MODIFICATION OF BID

Bids may be withdrawn upon receipt of written request prior to the scheduled bid opening for the purpose of making any corrections or changes. Such corrections must be properly identified and signed or initialed by the Bidder. Resubmission must be prior to the scheduled bid opening time in order to be considered. After bid opening, no price modifications of submitted bids or other

provisions shall be permitted.

WITHDRAWAL OF BID

A low Bidder alleging a material mistake of fact, after bids have been opened may request their bid be withdrawn upon receipt of a written request to the Finance Department prior to the scheduled awarding date.

INSPECTION

Final inspection and acceptance will be made at the City's discretion. Products rejected for nonconformance with the specifications shall be removed by the Bidder, at his/her risk and expense promptly after notice of rejection.

FEDERAL TAX IDENTIFICATION NUMBER

Pursuant to IRS requirements, Bidder shall provide their Federal Tax ID Number if Bidder is incorporated. If Bidder is a sole proprietorship or partnership they then shall provide their Social Security Number.

FEDERAL TAX ID NUMBER: _____
SOCIAL SECURITY NUMBER: _____

NEW MEXICO TAX IDENTIFICATION NUMBER

Payment may be withheld under (Section 7-10-5, N.M.S.A. 1978) if you are subject to New Mexico Gross Receipts Tax and have not registered for New Mexico (CRS) Tax Identification Number. Contact the New Mexico Taxation & Revenue Department at (505) 827-0700 for registering instructions.

NEW MEXICO TAX IDENTIFICATION NO. (CRS): _____

CAMPAIGN CONTRIBUTION DISCLOSURE FORM

The Bidder shall submit a complete Campaign Contribution Disclosure Form Pursuant to NMSA 13-1-191.1, as amended.

COMMERCIAL WARRANTY

The Bidder agrees that the products or services furnished under a Purchase Order shall be covered by the most favorable commercial warranties that the Bidder gives to any customer for such products or services. And that the rights and remedies provided therein shall extend to the City and are in addition to and do not limit any rights afforded to the City by any other clause of its Purchase Order. Bidder agrees not to disclaim warranties of fitness for any particular purpose or merchantability.

Furthermore, Bidder agrees that its warranty for all products furnished under a Purchase Order pursuant to this Call for Bids shall be for a period of one year following the installation of said products by others. The Bidder agrees that prior to receiving payment, Bidder shall provide to the City written notice by the City's Engineer that the products have been installed correctly and have been demonstrated to be capable of performing their intended function.

SPECIAL NOTICE

To preclude possible errors and/or misinterpretations, bid prices must be affixed in ink or typewritten legibly. Enclose one (1) original and five (5) copies of Bid documents.

DEFAULT

The City reserves the right to cancel all or any part of an order without cost to the City if the Bidder fails to meet the provision of the City's Purchase Order or the product specifications and to hold the Bidder liable for any excess costs occasioned due to the Bidder's default. The Bidder shall not be liable for any excess costs if failure to perform on an order arises out of cause beyond the control and without fault or negligence of the Bidder. Such causes include but are not restricted to acts of GOD or public enemy; acts of State or Federal Government; fires, floods, epidemics, quarantine restrictions, strikes, embargoes, unusually severe weather, or defaults of subcontractors. Due to any of the above, unless the City shall determine that the supplies or services to be furnished by the subcontractor are obtainable from other sources in the City, this paragraph shall not be exclusive and shall be in addition to any other rights now being provided by law.

BID PROTESTS

If any bidder is of the opinion that the specifications as written preclude him/her from submitting a bid, his/her opinion should be made known to the Department involved in this bid request at least fifteen (15) days prior to the scheduled bid opening date with a copy forwarded to the Finance Department. Bid protests will not be considered from parties who do not also furnish satisfactorily documentation with their protest that their proposed system fully meets the functional intent of the TECHNICAL SPECIFICATIONS which accompany a Call for Bids.

NON-EXCLUSION

Specifications of the bid request are not meant to exclude any Bidder or Manufacturer. Where a brand name or equal is indicated, it is for the purpose of describing the standard of quality, performance and characteristics desired and is not intended to restrict competition. "No Substitute" specifications may be authorized, only if required to match existing equipment.

If any Bidder is of the opinion that the specifications as written preclude him/her from submitting a bid, his/her opinion should be made known to the Department involved in this bid request at least five (5) days prior to the scheduled bid opening date, with a copy forwarded to the Finance Department.

Brand names and numbers are for reference only and equivalents will be considered. If bidding "EQUIVALENT" Bidder must be prepared to furnish complete data upon request, preferably with the bid to avoid awarding delay.

CONTRACT

When the City issues a Purchase Order in response to an awarded Bid a binding contract is created (unless a specific contract has been created).

TERMINATION

This Price Agreement may be terminated by either party upon signing a written notice to the other party at least thirty (30) days in advance of the date of termination. Notice of termination of this Price Agreement shall not affect any outstanding orders.

TAXES:

Bidder must pay all applicable taxes.

NOTE:

If bidder is from outside the City of Las Vegas, the successful bidder must pay Gross Receipts Tax in the City of Las Vegas.

CAMPAIGN CONTRIBUTION DISCLOSURE FORM

Pursuant to the Procurement Code, NMSA 13-1-28, *et al*, as amended, a prospective contractor subject to this section shall disclose all campaign contributions given by the prospective contractor or a family member or representative of the prospective contractor to an applicable public official of the state or a local public body during the two years prior to the date on which a proposal is submitted or, in the case of a sole source or small purchase contract, the two years prior to the date on which the contractor signs the contract, if the aggregate total of contributions given by the prospective contractor or a family member or representative of the prospective contractor to the public official exceeds two hundred fifty dollars (\$250.00) over the two-year period. A prospective contractor submitting a disclosure statement pursuant to this section who has not contributed to an applicable public official, whose family members have not contributed to an applicable public official or whose representatives have not contributed to an applicable public official shall make a statement that no contribution was made.

A prospective contractor or a family member or representative of the prospective contractor shall not give a campaign contribution or other thing of value to an applicable public official or the applicable public official's employees during the pendency of the procurement process or during the pendency of negotiations for a sole source or small purchase contract.

Furthermore, a solicitation or proposed award for a proposed contract may be canceled pursuant to NMSA 13-1-181 or a contract that is executed may be ratified or terminated pursuant to NMSA 13-1-18 if a prospective contractor fails to submit a fully completed disclosure statement pursuant to this section; or a prospective contractor or family member or representative of the prospective contractor gives a campaign contribution or other thing of value to an applicable public official or the applicable public official's employees during the pendency of the procurement process.

The state agency or local public body that procures the services or items of tangible personal property shall indicate on the form the name or names of every applicable public official, if any, for which disclosure is required by a prospective contractor.

THIS FORM MUST BE INCLUDED IN THE REQUEST FOR PROPOSALS AND MUST BE FILED BY ANY PROSPECTIVE CONTRACTOR WHETHER OR NOT THEY, THEIR FAMILY MEMBER, OR THEIR REPRESENTATIVE HAS MADE ANY CONTRIBUTIONS SUBJECT TO DISCLOSURE.

The following definitions apply:

"Applicable public official" means a person elected to an office or a person appointed to complete a term of an elected office, who has the authority to award or influence the award of the contract for which the prospective contractor is submitting a competitive sealed proposal or who has the authority to negotiate a sole source of small purchase contract that may be awarded without submission of a sealed competitive proposal.

"Campaign Contribution" means a gift, subscription, loan, advance or deposit of money or other thing of value, including the estimated value of an in-kind contribution, that is made to or received by an applicable public official or any person authorized to raise, collect or expend contributions on that official's behalf for the purpose of electing the official to statewide or local office. "Campaign Contribution" includes the payment of a debt incurred in an election campaign, but does not include the value of services provided without compensation or unreimbursed travel or other personal expenses of individuals who volunteer a portion or all of their time on behalf of a candidate or political committee, nor does it include the administrative or solicitation expenses of a political committee that are paid by an organization that sponsors the committee.

"Family member" means a spouse, father, mother, child, father-in-law, mother-in-law, daughter-in-law or son-in-law of (a) a prospective contractor, if the prospective contractor is a natural person; or (b) an owner of a prospective contractor;

"Pendency of the procurement process" means the time period commencing with the public notice of the request for proposals and ending with the award of the contract or the cancellation of the request for proposals.

“Prospective contractor” means a person or business that is subject to the competitive sealed proposal process set forth in the Procurement Code [NMSA 13-1-28 through 13-1-199] or is not required to submit a competitive sealed proposal because that person or business qualifies for a sole source or small purchase contract.

“Representative of a prospective contractor” means an officer or director of a corporation, a member or manager of a limited liability corporation, a partner of a partnership or a trustee of a trust of the prospective contractor.

Name(s) of Applicable Public Official(s) if any: _____
(Completed by State Agency or Local Public Body)

DISCLOSURE OF CONTRIBUTIONS BY PROSPECTIVE CONTRACTOR:

Contribution Made By: _____

Relation to Prospective Contractor: _____

Date Contribution(s) Made: _____

Amount(s) of Contribution(s) _____

Nature of Contribution(s) _____

Purpose of Contribution(s) _____

(Attach extra pages if necessary)

Signature

Date

Title (position)

--OR--

NO CONTRIBUTIONS IN THE AGGREGATE TOTAL OVER TWO HUNDRED FIFTY DOLLARS (\$250.00) WERE MADE to an applicable public official by me, a family member or representative.

Signature

Date

Title (Position)

**CITY OF LAS VEGAS
BIDFORM**

BID ITEM (S): LIQUID ALUMINUM SULFATE (LIQUID ALUM)
SEE SPECIFICATIONS ATTACHED

0

A.	_____	\$	_____
B.	_____	\$	_____
C.	_____	\$	_____
D.	_____	\$	_____
E.	_____	\$	_____
F.	_____	\$	_____
G.	_____	\$	_____
H.	_____	\$	_____
I.	_____	\$	_____
J.	_____	\$	_____
K.	_____	\$	_____
L.	_____	\$	_____

NOTE:

_____.



CHEMTRADE

<http://www.chemtradelogistics.com>

Liquid Alum PRODUCT PROFILE

CHARACTERISTICS

Liquid aluminum sulfate (liquid alum) is a clear, light green, slight yellow, brown, amber or orange-like tinted aqueous solution. Iron-free and food-grade liquid alum are clear and a slight tint to colorless.

TYPICAL PROPERTIES

Dry Alum Equivalent, as $Al_2(SO_4)_3 \cdot 14H_2O$	48.5 % (approx.)
Molecular Weight of Dry Alum	594
Product Density	10.8 - 11.3 lbs./US gallon
Specific Gravity	1.30 - 1.35
pH (neat)	1.4 - 2.6
Boiling Point	101°C (214°F) (approx.)
Freezing Point	-16°C (4°F)
Freezing Temperatures of Solutions	See Figure 1

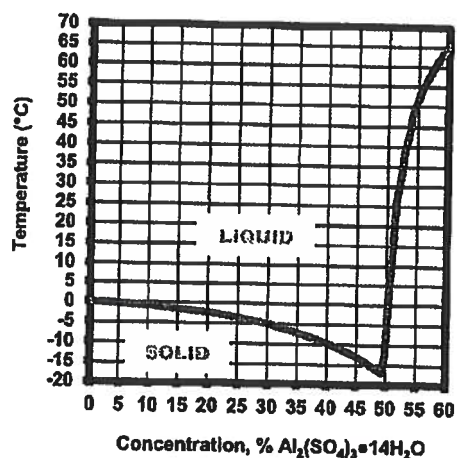


Figure 1: Approximate Freezing Temperature of Aluminum Sulfate Solutions

Acidified Alum also available

TYPICAL ANALYSES

Grade	Standard	Low Iron	Iron-Free	FCC, Food Grade
Total Soluble Al_2O_3 , %	8.0 - 8.4	8.0 - 8.4	8.0 - 8.3	8.0 - 8.2
Free Al_2O_3 , %	0.01 - 0.20	0.01 - 0.20	0.01 - 0.20	0.01 - 0.20
Total Soluble Iron, (as Fe_2O_3), %	0.3 max.	< 0.02	0.005 max.	0.005 max.
Water Insolubles, %	0.5 max.	0.02 max.	0.02 max.	0.005 max.

PRODUCT MARKETS AND USES

Water and Wastewater Treatment

- ☐ BOD Removal
- ☐ Chemically Enhanced Primary Treatment
- ☐ Coagulation / Flocculation Agent
- ☐ Color Reduction
- ☐ Disinfection Byproduct Control
- ☐ Oily Waste and Heavy Metal Separation
- ☐ Stormwater Treatment
- ☐ Struvite Control
- ☐ Suspended Solids Removal
- ☐ Total Organic Carbon Removal / Reduction
- ☐ Water Clarification

Papermaking

- ☐ Paper Sizing
- ☐ Retention Aid / Drainage Aid

Environmental

- ☐ Algae Control
- ☐ Lagoon Treatment
- ☐ Lake Treatment and Restoration
- ☐ Phosphorus Control / Inactivation



Liquid Alum

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.
Revision Date: 11/02/2018 Date of Issue: 05/01/2015

Version: 8.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Liquid Alum

Intended Use of the Product

Alum is used as a coagulating agent in municipal and industrial water and wastewater treatment and as an additive in papermaking.

Name, Address, and Telephone of the Responsible Party

Manufacturer

CHEMTRADE LOGISTICS INC.

155 Gordon Baker Road

Suite 300

Toronto, Ontario M2H 3N5

For SDS Info: (416) 496-5856

www.chemtradelogistics.com

Emergency Telephone Number

Emergency Number :

Canada: CANUTEC +1-613-996-6666 / US: CHEMTREC +1-800-424-9300

INTERNATIONAL: +1-703-741-5970

Chemtrade Emergency Contact: (866) 416-4404

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification

Met. Corr. 1 H290

Eye Dam. 1 H318

Aquatic Acute 3 H402

Full text of hazard classes and H-statements : see section 16

Label Elements

GHS Labeling

Hazard Pictograms :



Signal Word

Hazard Statements

Precautionary Statements

- : Danger
- : H290 - May be corrosive to metals.
H318 - Causes serious eye damage.
H402 - Harmful to aquatic life.
- : P234 - Keep only in original container.
P260 - Do not breathe vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - 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 or doctor.

Liquid Alum

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

- P321 - Specific treatment (see section 4 on this SDS).
- P363 - Wash contaminated clothing before reuse.
- P390 - Absorb spillage to prevent material damage.
- P405 - Store locked up.
- P406 - Store in corrosive resistant container with a resistant inner liner.
- P501 - Dispose of contents/container in accordance with local, regional, national, provincial, territorial and international regulations.

Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

Unknown acute toxicity

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	%*	GHS Ingredient Classification
Water	(CAS No) 7732-18-5	30 - 55	Not classified
Sulfuric acid, aluminum salt (3:2)**	(CAS No) 10043-01-3	45 - 70*	Met. Corr. 1, H290 Eye Dam. 1, H318 Aquatic Acute 3, H402

Full text of H-phrases: see section 16

**As $Al_2(SO_4)_3 \cdot 14H_2O$ (Dry Aluminum Sulfate).

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

*The actual concentration of the ingredient(s) is withheld as a trade secret in accordance with the Hazardous Products Regulations (HPR) SOR/2015-17 and 29 CFR 1910.1200.

SECTION 4: FIRST AID MEASURES

Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Remove contaminated clothing. Immediately flush skin with plenty of water for at least 30 minutes. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

Eye Contact: Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: May cause skin irritation and eye damage.

Inhalation: May be corrosive to the respiratory tract.

Skin Contact: May cause irritation.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Liquid Alum

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

Explosion Hazard: Contact with metallic substances may release flammable hydrogen gas.

Reactivity: May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Can liberate toxic and corrosive fumes of SO₂ and SO₃ under extreme conditions when boiled to dryness or heated above 600 ° C (1112 °F).

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Absorb spillage to prevent material damage. Cautiously neutralize spilled liquid.

Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: May be corrosive to metals. May release corrosive vapors.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist, and spray.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from extremely high or low temperatures and incompatible materials. Store in corrosive resistant container with a resistant inner liner. Store in original container or corrosive resistant and/or lined container.

Incompatible Materials: Non acid-proof metals (such as aluminum, copper and iron), bases, unalloyed steel, galvanized surfaces.

Specific End Use(s)

Alum is used as a coagulating agent in municipal and industrial water and wastewater treatment and as an additive in papermaking.

Liquid Alum

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Face shield. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemical resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye Protection: Chemical safety goggles and face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear
Odor	: Odorless
Odor Threshold	: Not available
pH	: 1.4 - 2.6
Evaporation Rate	: Not available
Melting Point	: Not applicable
Freezing Point	: -15.56 °C (3.99 °F)
Boiling Point	: 101 °C (213.8 °F)
Flash Point	: Not flammable
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Relative Density	: Not available
Specific Gravity	: 1.30 – 1.35
Solubility	: Water: Completely miscible in water
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

Liquid Alum

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According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Extremely high or low temperatures and incompatible materials.

Incompatible Materials: Non acid-proof metals (such as aluminum, copper and iron), bases, unalloyed steel, galvanized surfaces.

Hazardous Decomposition Products: None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: May causes skin irritation and eye damage.

pH: 1.4 - 2.6

Eye Damage/Irritation: Causes serious eye damage.

pH: 1.4 - 2.6

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Effects After Inhalation: May be corrosive to the respiratory tract.

Symptoms/Effects After Skin Contact: May cause skin irritation.

Symptoms/Effects After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Effects After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Water (7732-18-5)	
LD50 Oral Rat	> 90000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Harmful to aquatic life.

Persistence and Degradability

Liquid Alum	
Persistence and Degradability	Not established.

Bioaccumulative Potential

Liquid Alum	
Bioaccumulative Potential	Not established.

Mobility in Soil

Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.





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SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

TRANSPORTATION CLASSIFICATION	DOT	TDG	IMDG	IATA
Identification Number	UN3264	UN3264	UN3264	UN3264
Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (CONTAINS ALUMINUM SULFATE)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (CONTAINS ALUMINUM SULFATE)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (CONTAINS ALUMINUM SULFATE)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (CONTAINS ALUMINUM SULFATE)
Transport Hazard Class(es)	8	8	8	8
				
Packing Group	III	III	III	III
Environmental Hazards	Marine Pollutant : No	Marine Pollutant : No	Marine Pollutant : No	Marine Pollutant: N/A
Emergency Response	ERG Number : 154	ERAP Index: Not applicable	EMS: F-A, S-B	ERG code (IATA): 8L
Additional Information	Not applicable	Not applicable	Not applicable	Not applicable

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Chemical Name (CAS No.)	CERCLA RQ	EPCRA 304 RQ	SARA 302 TPQ	SARA 313
Sulfuric acid, aluminum salt (3:2) (10043-01-3)	5000 lb	Not present	Not present	No

SARA 311/312

Liquid Alum
Immediate (acute) health hazard

US TSCA Flags

Not present

US State Regulations

California Proposition 65

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Sulfuric acid, aluminum salt (3:2) (10043-01-3)	No	No	No	No

State Right-To-Know Lists

Sulfuric acid, aluminum salt (3:2) (10043-01-3)
U.S. - Massachusetts - Right To Know List - Yes
U.S. - New Jersey - Right to Know Hazardous Substance List - Yes
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List - Yes
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances - No
U.S. - Pennsylvania - RTK (Right to Know) List - Yes

Canadian Regulations

Liquid Alum

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According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

Sulfuric acid, aluminum salt (3:2) (10043-01-3)

Listed on the Canadian DSL (Domestic Substances List)

Not listed on the Canadian NDSL (Non-Domestic Substances List)

International Inventories/Lists

Chemical Name (CAS No.)	Australia AICS	Turkey CICR	Korea ECL	EU EINECS	EU ELINCS	EU SVHC	EU NLP	Mexico INSQ
Sulfuric acid, aluminum salt (3:2) (10043-01-3)	Yes	Yes	Yes	Yes	No	No	No	Yes
Chemical Name (CAS No.)	China IECSC	Japan ENCS	Japan ISHL	Japan PDSCL	Japan PRTR	Philippines PICCS	New Zealand NZIOC	US TSCA
Sulfuric acid, aluminum salt (3:2) (10043-01-3)	Yes	Yes	No	No	No	Yes	Yes	Yes

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 11/02/2018

Revision Summary

Section	Change	Date Changed
2	Hazard statement update	11/02/2018
4	Text update	11/02/2018
11	Text update	11/02/2018

Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

GHS Full Text Phrases:

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H290	May be corrosive to metals
H318	Causes serious eye damage
H402	Harmful to aquatic life

NFPA 704

NFPA Health Hazard : 2

NFPA Fire Hazard : 0

NFPA Reactivity Hazard : 1

HMIS Rating

Health : 2

Flammability : 0

Physical : 1

PPE See Section 8

Abbreviations and Acronyms

AICS - Australian Inventory of Chemical Substances
ACGIH - American Conference of Governmental Industrial Hygienists
AIHA - American Industrial Hygiene Association
ATE - Acute Toxicity Estimate
BCF - Bioconcentration factor
BEI - Biological Exposure Indices (BEI)
CAS No. - Chemical Abstracts Service number
CERCLA RQ - Comprehensive Environmental Response, Compensation, and Liability Act - Reportable Quantity
CICR - Turkish Inventory and Control of Chemicals
DOT - 49 CFR - US Department of Transportation - Code of Federal Regulations Title 49 - Transportation.

LC50 - Median Lethal Concentration
LD50 - Median Lethal Dose
LOAEL - Lowest Observed Adverse Effect Level
LOEC - Lowest-observed-effect Concentration
Log Pow - Octanol/water Partition Coefficient
NFPA 704 - National Fire Protection Association - Standard System for the Identification of the Hazards of Materials for Emergency Response
NIOSH - National Institute for Occupational Safety and Health
NLP - Europe No Longer Polymers List
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
NZIOC - New Zealand Inventory of Chemicals

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EC50 - Median effective concentration	OEL - Occupational Exposure Limits
ECL - Korea Existing Chemicals List	OSHA - Occupational Safety and Health Administration
EINECS - European Inventory of Existing Commercial Chemical Substances	PEL - Permissible Exposure Limits
ELINCS - European List of Notified Chemical Substances	PICCS - Philippine Inventory of Chemicals and Chemical Substances
Ems - IMDG Emergency Schedule Fire & Spillage	PDSCCL - Japan Poisonous and Deleterious Substances Control Law
ENCS - Japanese Existing and New Chemical Substances Inventory	PPE - Personal Protective Equipment
EPA - Environmental Protection Agency	PRTR - Japan Pollutant Release and Transfer Register
EPCRA 304 RQ - EPCRA 304 Extremely Hazardous Substance Emergency	REL - Recommended Exposure Limit
Planning and Community Right-to-Know-Act - Reportable Quantity	SADT - Self Accelerating Decomposition Temperature
ERAP Index - Emergency Response Assistance Plan Quantity Limit	SARA - Superfund Amendments and Reauthorization Act
ErC50 - EC50 in Terms of Reduction Growth Rate	SARA 302 - Section 302, 40 CFR Part 355
ERG code (IATA) - Emergency Response Drill Code as found in the International Civil Aviation Organization (ICAO)	SARA 311/312 - Sections 311 and 312, 40 CFR Part 370 Hazard Categories
ERG No. - Emergency Response Guide Number	SARA 313 - Section 313, 40 CFR Part 372
HCCL - Hazard Communication Carcinogen List	SRCL - Specifically Regulated Carcinogen List
HMIS - Hazardous Materials Information System	STEL - Short Term Exposure Limit
IARC - International Agency for Research on Cancer	SVHC - European Candidate List of Substance of Very High Concern
IATA - International Air Transport Association - Dangerous Goods Regulations	TDG - Transport Canada Transport of Dangerous Goods Regulations
IDLH - Immediately Dangerous to Life or Health	TLM - Median Tolerance Limit
IECSC - Inventory of Existing Chemical Substances Produced or Imported in China	TLV - Threshold Limit Value
IMDG - International Maritime Dangerous Goods Code	TPQ - Threshold Planning Quantity
INSQ - Mexican National Inventory of Chemical Substances	TSCA - United States Toxic Substances Control Act
ISHL - Japan Industrial Safety and Health Law	TWA - Time Weighted Average
	WEEL - Workplace Environmental Exposure Levels

Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA'S "Right to Know" (29 CFR 1910.1200) and Canada's WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care™.



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