JMN SPECIALTIES, INC.

Safety Data Sheet
ALUM BRITE 4

SECTION 1: Identification

1.1 GHS Product identifier

Product name	ALUM BRITE 4
Product number	ALUM BRITE 4
Brand	JMN

1.2 Other means of identification

1.3 Recommended use of the chemical and restrictions on use

Recommended Use: Aluminum brightener, acid cleaner for industrial applications
Restrictions on Use: For industrial and professional use only. Not for household, food, or pharmaceutical use.

1.4 Supplier's details

Name	JMN Specialties, Inc.
Address	1100 Victory Drive Westwego LA 70094 USA
Telephone	504-341-3749
Fax	504-341-5868
email	sales@jmnspecialties.com

1.5 Emergency phone number

US & Canada: (800) 255-3924
Outside USA +01-813-248-0585.

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200, 2024)

- Skin corrosion/irritation (C.4.4), Cat. 1A
- Eye damage/irritation (C.4.5), Cat. 1
- Acute toxicity, oral (C.4.1), Cat. 4
- Specific target organ toxicity, single exposure (C.4.11), Cat. 3

2.2 GHS label elements, including precautionary statements

Pictograms

Signal word **DANGER**

Hazard statement(s)

H314	Causes severe skin burns and eye damage
H302	Harmful if swallowed
H335	May cause respiratory irritation

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands and clean any skin contact thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face 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 [or shower].
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/doctor/emergency room.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of container and unused contents in accordance with federal, state and local requirements.

2.3 Other hazards which do not result in classification

Repeated skin contact may cause defatting and dermatitis. Vapors or mists may accumulate in confined or poorly ventilated areas. Contact with metals may generate hydrogen gas. Spilled material may create a slip hazard. Contains ammonium bifluoride. Exposure may result in delayed systemic fluoride toxicity, including hypocalcemia.

Statement regarding ingredients of unknown toxicity

Acute toxicity (oral): 0% of mixture consists of ingredient(s) of unknown toxicity.
Acute toxicity (dermal): 0% of mixture consists of ingredient(s) of unknown toxicity.
Acute toxicity (inhalation): 0% of mixture consists of ingredient(s) of unknown toxicity.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Identification	Weight %	Classifications
Sulfuric acid	CAS no.: 7664-93-9 EC no.: 231-639-5 Index no.: 016-020-00-8	10 - 15 %	CLASSIFICATIONS: Skin corrosion/irritation (chapter 3.2), Cat. 1A. HAZARDS: H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: Skin Corr. 1A; H314: C ≥ 15 %; Skin Irrit. 2; H315: 5 % ≤ C < 15 %; Eye Irrit. 2; H319: 5 % ≤ C < 15 %

Component	Identification	Weight %	Classifications
Ammonium bifluoride	CAS no.: 1341-49-7 EC no.: 215-676-4 Index no.: 009-009-00-4	5 - 10 %	CLASSIFICATIONS: Acute toxicity, oral (chapter 3.1), Cat. 3; Skin corrosion/irritation (chapter 3.2), Cat. 1B. HAZARDS: H301 - Toxic if swallowed; H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: *; Skin Corr. 1B; H314: C ≥ 1 %; Skin Irrit. 2; H315: 0,1 % ≤ C < 1 %; Eye Irrit. 2; H319: 0,1 % ≤ C < 1 %
Phosphoric acid	CAS no.: 7664-38-2 EC no.: 231-633-2 Index no.: 015-011-00-6	> 3 - 5 %	CLASSIFICATIONS: Skin corrosion/irritation (chapter 3.2), Cat. 1B. HAZARDS: H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: Skin Corr. 1B; H314: C ≥ 25 %; Skin Irrit. 2; H315: 10 % ≤ C < 25 %; Eye Irrit. 2; H319: 10 % ≤ C < 25 %
Butoxyethanol	CAS no.: 111-76-2 EC no.: 203-905-0 Index no.: 603-014-00-0	1 - 5 %	CLASSIFICATIONS: Flammable liquids (chapter 2.6), Cat. 4; Acute toxicity, dermal (chapter 3.1), Cat. 4; Acute toxicity, inhalation (chapter 3.1), Cat. 4; Acute toxicity, oral (chapter 3.1), Cat. 4; Skin corrosion/irritation (chapter 3.2), Cat. 2; Serious eye damage/eye irritation (chapter 3.3), Cat. 2A. HAZARDS: H227 - Combustible liquid; H302 - Harmful if swallowed; H312 - Harmful in contact with skin; H315 - Causes skin irritation; H319 - Causes serious eye irritation; H332 - Harmful if inhaled. [SCLs/M-factors/ATEs]: Oral: ATE = 1200 mg/kg

Trade secret statement (OSHA 1910.1200(i))
Any concentration shown as a range is to protect confidentiality or is due to batch variation. When not listed, mixtures may contain water [CAS No. 7732-18-5] to 100%. The chemical identity and/or percentage of composition of other components is being withheld as a trade secret.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice

Immediate medical attention is required for all exposures. This product is a strongly acidic, corrosive mixture containing fluoride compounds capable of causing delayed tissue damage and systemic toxicity. Ensure medical personnel are aware of the fluoride exposure risk. Show this SDS to the attending physician.

If inhaled

Remove the affected person to fresh air immediately. Keep at rest in a position comfortable for breathing. If breathing is difficult, administer oxygen if trained personnel are available. If symptoms such as coughing, irritation, or difficulty breathing persist, seek immediate medical attention. Exposure to mist or vapors may cause respiratory irritation or delayed lung effects.

In case of skin contact	Immediately flush skin with large amounts of water for at least 15–30 minutes while removing contaminated clothing and shoes. Do not delay rinsing. Seek immediate medical attention. Fluoride exposure treatment: Application of calcium gluconate gel (2.5%) is recommended as soon as possible after initial rinsing, particularly for suspected fluoride burns. Massage continuously into affected area until medical help is obtained. Wash contaminated clothing before reuse. Discard contaminated leather items.
In case of eye contact	Immediately rinse cautiously with water for at least 15–30 minutes, lifting upper and lower eyelids occasionally. Remove contact lenses if present and easy to do. Continue rinsing. Immediate medical attention is required. Eye exposure may result in severe damage or permanent injury.
If swallowed	Do NOT induce vomiting. Rinse mouth thoroughly with water if the person is conscious. Never give anything by mouth to an unconscious person. Seek immediate medical attention. Note: Ingestion of fluoride-containing materials may result in systemic toxicity, including disturbances in calcium and magnesium balance.
Personal protective equipment for first-aid responders	Wear suitable protective clothing. Wear gloves and eye/face protection.

4.2 Most important symptoms/effects, acute and delayed

Exposure to this product may cause severe skin burns and eye damage, characterized by pain, redness, blistering, and possible tissue destruction. Contact with eyes may result in serious injury or permanent damage. Inhalation of mist or vapors may cause respiratory irritation, coughing, and discomfort. Due to the presence of fluoride compounds, exposure may result in delayed deep tissue damage as fluoride ions penetrate the skin and underlying tissues. In severe cases, systemic toxicity may occur, including disturbances in calcium and magnesium balance, which may lead to muscle cramps, cardiac effects, or other serious health complications.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Immediate medical attention is required for all exposures to this product. Treatment should focus on prompt decontamination and management of chemical burns. Due to the presence of fluoride compounds, medical personnel should monitor calcium, magnesium, and potassium levels and treat accordingly. Calcium supplementation may be required, and the use of calcium gluconate (topical, intravenous, or intra-arterial) should be considered based on the severity and route of exposure. Treat affected areas as chemical burns and provide supportive care as needed.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Suitable Extinguishing Media: Use extinguishing media appropriate for the surrounding fire, including water spray, dry chemical, carbon dioxide (CO_2), or alcohol-resistant foam.
Unsuitable Extinguishing Media: Do not use direct high-pressure water streams, as this may spread the material and increase the potential for splashing of corrosive liquid.

5.2 Specific hazards arising from the chemical

This product is not flammable; however, it is a strongly acidic, corrosive mixture. Contact with metals may generate flammable hydrogen gas, which can accumulate and pose an explosion hazard in confined spaces. Thermal decomposition may produce toxic and corrosive fumes, including hydrogen fluoride, fluorine-containing compounds, sulfur oxides, phosphorus oxides, and carbon oxides. Containers exposed to fire may rupture due to heat and internal pressure.

5.3 Special protective actions for fire-fighters

Firefighters should wear full protective gear, including chemical-resistant protective clothing and self-contained breathing apparatus (SCBA) in positive pressure mode. Avoid inhalation of fumes, vapors, or decomposition products. Use water spray to cool fire-exposed containers and to disperse vapors. Approach fire from upwind and prevent runoff from entering drains, sewers, or waterways.

Further information

This product does not burn but may contribute to hazardous conditions in a fire due to corrosivity, toxic decomposition products, and potential hydrogen gas evolution upon contact with metals.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel from the area. Avoid contact with skin, eyes, and clothing. Do not breathe mist, vapors, or spray. Ensure adequate ventilation. Wear appropriate personal protective equipment (PPE), including chemical-resistant gloves, protective clothing, and eye/face protection. If exposure limits may be exceeded or ventilation is inadequate, use a NIOSH-approved respirator. Exercise caution due to the presence of corrosive acids and fluoride compounds capable of causing severe injury.

6.2 Environmental precautions

Prevent release to the environment. Avoid discharge into surface water, groundwater, or soil. This product may cause localized acidification and may be harmful to aquatic organisms due to pH effects and fluoride content. Notify appropriate authorities if significant release occurs.

6.3 Methods and materials for containment and cleaning up

Contain the spill if it can be done safely. Prevent entry into drains, sewers, and waterways. Absorb small spills with inert, non-combustible materials such as sand, earth, or suitable absorbent. For larger spills, dike the area to contain the material. Carefully neutralize with a suitable alkaline material (e.g., soda ash or lime), avoiding excessive heat generation and splattering. Collect the absorbed or neutralized material into appropriate, labeled containers for disposal. Rinse affected area with water after cleanup while controlling runoff.

Reference to other sections

See protective measures in Sections 7 and 8. Disposal considerations in Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin, eyes, and clothing. Do not breathe mist, vapors, or spray. Use only in well-ventilated areas. Wear appropriate personal protective equipment (PPE), including chemical-resistant gloves, protective clothing, and eye/face protection. Wash thoroughly after handling and before eating, drinking, or smoking. Do not ingest. Avoid contamination with incompatible materials such as strong bases and reactive metals. Due to the presence of fluoride compounds, appropriate emergency response materials (e.g., calcium gluconate gel) should be readily available where exposure risk exists.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from incompatible materials. Keep container tightly closed when not in use. Store in corrosion-resistant containers constructed of compatible materials (e.g., polyethylene, polypropylene, or appropriately lined tanks). Avoid contact with metals, which may result in corrosion and the evolution of hydrogen gas. Protect from freezing and extreme temperature fluctuations, as low temperatures may result in salt precipitation. Keep away from strong bases, oxidizing agents, and reactive materials. Store away from food, beverages, and incompatible chemicals. Ensure secondary containment is used where appropriate. Incompatibilities: Strong bases, reactive metals (e.g., aluminum, zinc), oxidizers, and materials sensitive to acidic conditions.

Specific end use(s)
This product is intended for use as an industrial aluminum brightener and acid cleaning agent for the removal of oxidation, scale, and surface contamination from aluminum and other compatible metal surfaces. It is designed for professional use in applications such as transportation equipment cleaning, maintenance operations, and metal surface preparation where controlled acidic cleaning and brightening are required. Use only in accordance with recommended application procedures and appropriate safety practices.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: 111-76-2 (EC: 203-905-0)
Butoxyethanol
20 ppm, 97 mg/m3 PEL inhalation; ACGIH (USA): 20 ppm TLV® inhalation; 20 ppm TWA inhalation; Cal/OSHA: 20 ppm PEL inhalation; NIOSH: 5 ppm REL inhalation; 5 ppm, 24 mg/m3 TWA inhalation; OSHA: 50 ppm PEL inhalation; 240 mg/m3 PEL inhalation; 50 ppm, 240 mg/m3 TWA inhalation

CAS: 1341-49-7 (EC: 215-676-4)
Ammonium bifluoride
OSHA: 2.5 mg/m3 TWA inhalation

CAS: 7664-38-2 (EC: 231-633-2)
Phosphoric acid
ACGIH (USA): 1 mg/m3, (ST) 3 mg/m3 TLV® inhalation; Cal/OSHA (USA): 1 mg/m3, (ST) 3 mg/m3 PEL inhalation; NIOSH (USA): 1 mg/m3, (ST) 3 mg/m3 REL inhalation; OSHA (USA): 1 mg/m3 PEL inhalation

CAS: 7664-93-9 (EC: 231-639-5)
Sulfuric acid
ACGIH (USA): 0.2 mg/m3, (Thor.) TLV® inhalation; 0.2 mg/m3 TWA inhalation; Cal/OSHA: 0.1 mg/m3, (ST) 3 mg/m3 PEL inhalation; NIOSH (USA): 1 mg/m3 REL inhalation; OSHA: 1 mg/m3 PEL inhalation; 1 mg/m3 TWA inhalation

8.2 Appropriate engineering controls
Provide adequate ventilation, preferably local exhaust ventilation, to maintain airborne concentrations below applicable exposure limits. Use closed systems or process enclosures where feasible. Emergency eyewash stations and safety showers should be readily accessible in areas where the product is handled.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms

Eye/face protection
Chemical safety goggles and a full face shield are recommended to prevent eye and face contact.

Skin protection
Hand Protection: Wear acid-resistant gloves such as nitrile, neoprene, PVC, or other chemically resistant materials. Inspect gloves prior to use and replace if damaged.
Body Protection: Wear chemical-resistant clothing such as an acid-resistant apron, suit, and boots to prevent skin contact. Use materials compatible with strong acids. Remove contaminated clothing promptly and launder before reuse.

Body protection
Wear full chemical-resistant protective clothing to prevent skin contact, including acid-resistant suit, apron, and boots constructed of materials such as PVC, neoprene, or other compatible materials. Where splashing or heavy exposure is possible, use fully encapsulating chemical protective suits. Due to the presence of ammonium bifluoride, protection against skin exposure is critical, as fluoride ions may penetrate tissue and cause delayed deep tissue injury. Contaminated clothing must be removed immediately and laundered before reuse. Do not reuse contaminated leather items such as boots or belts.

Respiratory protection
If ventilation is insufficient to maintain airborne concentrations below exposure limits, use a NIOSH-approved respirator suitable for acid mists and vapors. For high concentrations or emergency situations, use a self-contained breathing apparatus (SCBA).

Thermal hazards
No specific thermal hazards identified under normal conditions of use; however, elevated temperatures may increase vapor or mist formation and enhance exposure risk.

Control banding approach
This product is classified as a high hazard corrosive material containing fluoride compounds. Exposure potential is greatest during mixing, transfer, spraying, or any operation that may generate mist or aerosols. Implement engineering controls as the primary means of protection, including local exhaust ventilation and, where feasible, closed handling systems. Administrative controls should include restricted access, trained personnel, and established safe handling procedures. Full PPE is required, including chemical-resistant gloves, protective clothing, and eye/face protection. Respiratory protection should be used when ventilation is insufficient to control airborne exposure. Emergency response provisions, including eyewash stations, safety showers, and fluoride exposure treatment materials (e.g., calcium gluconate), must be readily available.

Environmental exposure controls
Prevent release to the environment. Avoid discharge into drains, surface waters, or soil. Implement appropriate containment and waste treatment measures to control environmental exposure.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear to light amber liquid
Color	Water white to pale straw/amber
Odor	Sharp Acidic
Odor threshold	Not determined
Melting point/freezing point	Not established; may precipitate salts at low temperature
Boiling point or initial boiling point and boiling range	>212°F (>100°C)
Flammability	Not flammable
Lower and upper explosion limit/flammability limit	Not applicable
Flash point	> 200°F / > 93°C
Explosive properties	Product is not explosive
Auto-ignition temperature	Not applicable

Decomposition temperature	Not established; thermal decomposition may release corrosive/toxic fluoride, sulfur oxide, phosphorus oxide, and carbon oxide fumes
Oxidizing properties	Not oxidizing
pH	< 1
Kinematic viscosity	Not established; expected low viscosity
Solubility	Complete
Partition coefficient n-octanol/water (log value)	Not determined
Vapor pressure	Not established
Evaporation rate	Similar to water
Density and/or relative density	9.0–9.2 lb/gal
Relative vapor density	> 1 (air=1)
Particle characteristics	Not applicable for this product

Further safety characteristics (supplemental)
VOC Content: < 1.5%
Surface Tension: ~28–34 mN/m at 25°C (estimated)

SECTION 10: Stability and reactivity

10.1 Reactivity
This product is a strongly acidic aqueous mixture and will react with alkaline materials. It may react with certain metals, including aluminum, zinc, and mild steel, to produce hydrogen gas, which can form flammable or explosive mixtures in confined spaces. The presence of ammonium bifluoride may result in the release of hydrogen fluoride under acidic conditions or when heated.

10.2 Chemical stability
Stable under normal conditions of storage and use when handled in accordance with recommended practices.

10.3 Possibility of hazardous reactions
Hazardous reactions may occur upon contact with bases, oxidizing agents, reactive metals, cyanides, or sulfides. Reactions with cyanides or sulfides may release highly toxic gases. Contact with metals may generate hydrogen gas. Mixing with incompatible materials may result in heat generation, splattering, or violent reactions.

10.4 Conditions to avoid
Avoid excessive heat, freezing conditions, and contact with incompatible materials. Avoid conditions that generate mists or aerosols. Do not mix with other chemicals unless compatibility has been confirmed.

10.5 Incompatible materials
Strong bases, oxidizers (including hypochlorites/bleach), reactive metals (such as aluminum, zinc, and mild steel), cyanides, sulfides, and materials not resistant to acidic conditions. Contact with hypochlorite solutions (bleach) may release chlorine gas.

10.6 Hazardous decomposition products
Thermal decomposition or reaction with incompatible materials may produce sulfur oxides (SOx), phosphorus oxides (POx), hydrogen fluoride (HF), ammonia, and nitrogen oxides (NOx).

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Estimated Acute Toxicity (ATE):
Oral: > 300 mg/kg (estimate based on components)
Dermal: > 1,000 mg/kg (estimate based on components)
Inhalation (mist): > 1.5 mg/L (estimate based on components)

Skin corrosion/irritation
Causes severe skin burns (Category 1A).

Serious eye damage/irritation
Causes serious eye damage (Category 1).

Respiratory or skin sensitization
Not expected to be a sensitizer based on available data.

Germ cell mutagenicity
Not classified based on available data.

Carcinogenicity
Not classified. Sulfuric acid mists (not the liquid solution) are classified by IARC as Group 1 (carcinogenic to humans) following chronic inhalation exposure; this classification does not apply to liquid or non-aerosol forms.

Reproductive toxicity
Not classified based on available data.

Summary of evaluation of the CMR properties
This product is not classified as carcinogenic, mutagenic, or toxic to reproduction (CMR) under OSHA 29 CFR 1910.1200 and GHS criteria.
Carcinogenicity: Not classified. Sulfuric acid mists (not the liquid solution) are listed by IARC as Group 1 – Carcinogenic to humans following chronic inhalation exposure; this classification does not apply to liquid or non-aerosol forms.
Germ Cell Mutagenicity: Not classified. No evidence of mutagenic effects for sulfuric acid.
Reproductive Toxicity: Not classified. No adverse reproductive or developmental effects observed in available studies for either component.
Based on available data for ingredients, this mixture is not expected to exhibit CMR hazards under normal industrial use conditions.

Specific target organ toxicity (STOT) - single exposure
Category 3: May cause respiratory irritation.

Specific target organ toxicity (STOT) - repeated exposure
Not classified. The effects of long-term, low-level exposures to this product have not been fully determined. Safe handling should emphasize avoidance of repeated or prolonged exposure. Repeated exposure may aggravate existing skin, eye, and respiratory conditions.

Aspiration hazard
Not classified.

Additional information
Fluoride-containing compounds may cause systemic toxicity if absorbed through the skin, inhaled, or ingested. Effects may include hypocalcemia, muscle spasms, and potential cardiac effects in severe cases.

SECTION 12: Ecological information

Toxicity
FISH: Product: Fish: Expected to have low acute toxicity: >10 - <100 mg/L (based on similar products / components)
AQUATIC INVERTEBRATES: Product: Daphnia magna: Expected to have low acute toxicity: >10 - <100 mg/L (based on similar products / components) (based on similar products / components)
CHRONIC TOXICITY FISH Product: NOEC/NOEL: >10 - <100 mg/L (based on similar products / components)
AQUATIC INVERTEBRATES Product: NOEC/NOEL: >10 - <100 mg/L (based on similar products / components)
TOXICITY TO AQUATIC PLANTS Product: Algae: Expected to have low acute toxicity: >10 - <100 mg/L (based on similar products / components)
May cause adverse effects to aquatic organisms due to low pH and fluoride content; toxicity estimates are based on similar products/components.

Persistence and degradability
Not expected to persist in the environment as a defined compound. Ammonium bifluoride → ammonium ions and fluoride species under acidic conditions; phosphoric and sulfuric acids dissociate to their respective ions. The primary environmental hazard is localized acidification and potential fluoride toxicity, not long-term persistence.

Bioaccumulative potential
Not expected to bioaccumulate significantly. Components are largely inorganic or highly water-soluble and are expected to remain in aqueous environments.

Mobility in soil
Highly mobile in soil due to complete solubility in water. May migrate with groundwater. Can cause localized pH reduction and mobilization of metals.

Results of PBT and vPvB assessment
Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria. Not fulfilling vPvB (very persistent, very bioaccumulative) criteria.

Endocrine disrupting properties
Based on available data for the components, this product is not expected to cause endocrine disruption. None of the ingredients are known or listed as endocrine disruptors by recognized regulatory authorities under normal conditions of use.

Other adverse effects
May cause harmful effects to aquatic organisms due to pH changes and fluoride content if released in large quantities. Avoid uncontrolled release to the environment.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Dispose of contents and container in accordance with all applicable federal, state, and local regulations. This product is considered hazardous waste due to its corrosive properties and potential fluoride content. Do not discharge untreated material to the environment. Neutralization with an appropriate alkaline material may be required prior to disposal, followed by handling through an authorized waste treatment facility.

Packaging disposal
Empty containers may contain residual product and should be handled with the same precautions as the full product. Do not reuse containers. Rinse thoroughly (if appropriate) and dispose of in accordance with regulatory requirements.

Waste treatment
Waste material should be treated as a hazardous corrosive waste. Where permitted, controlled neutralization with alkaline materials such as sodium hydroxide, soda ash, or lime may be performed to adjust pH to a neutral range (typically pH 6–9). Neutralization should be conducted slowly with adequate mixing and cooling, as the reaction is exothermic and may generate heat and splattering. Due to the presence of ammonium bifluoride, treatment may generate soluble fluoride ions; appropriate measures such as calcium addition (e.g., lime or calcium chloride) may be required to precipitate fluoride as insoluble calcium fluoride (CaF_2) prior to discharge or disposal. Resulting solids and sludges should be collected and disposed of in accordance with applicable regulations. Following treatment, disposal options may include discharge to a permitted industrial wastewater treatment system, off-site disposal at a licensed hazardous waste facility, or further treatment depending on local regulatory requirements. All waste handling must comply with federal, state, and local environmental regulations. The waste generator is responsible for proper characterization and determination of disposal methods.

Sewage disposal
Not approved for disposal in sewage systems. Avoid release to the environment. Considered hazardous waste due to corrosivity and aquatic toxicity; handle through an authorized waste treatment or disposal facility.

Other disposal recommendations
Waste characterization should be performed prior to disposal. Due to the presence of fluoride compounds, waste streams may require special handling or treatment. Coordinate disposal with a licensed waste contractor familiar with corrosive and fluoride-containing materials.

SECTION 14: Transport information

DOT (US)
UN Number: 3264
Class: 8
Packing Group: II
Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, n.o.s. (Contains Sulfuric Acid and Ammonium Bifluoride)
Reportable quantity (RQ): None. This product does not contain any components at or above their reportable quantity (RQ) thresholds as defined under CERCLA (40 CFR 302.4).
Marine pollutant: No

IMDG
UN Number: UN3264
Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, n.o.s. (Contains Sulfuric Acid and Ammonium Bifluoride)
Class: 8
Packing Group: II
EMS Number: F-A, S-B
Marine pollutant: No
Poison inhalation hazard: No

IATA
UN Number: UN3264
Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, n.o.s. (Contains Sulfuric Acid and Ammonium Bifluoride)
Class: 8
Packing Group: II

SECTION 15: Regulatory information

Component	CAS no.	RTK (US) for state:	TSCA (US)[1]	CA Prop. 65[2]	pfas[3]
Sulfuric acid	7664-93-9	MA, NJ, PA	P	c	-
Phosphoric acid	7664-38-2	MA, NJ, PA	P	-	-
Ammonium bifluoride	1341-49-7	MA, NJ, PA	P	-	-

Component	CAS no.	RTK (US) for state:	TSCA (US)[1]	CA Prop. 65[2]	pfas[3]
Butoxyethanol	111-76-2	MA, NJ, PA	P	-	-

[1] "P"—Public list, "C"—Confidential list. [2] "c"—cancer, "r"—reproductive harm. [3] "pfas"—Per- and polyfluoroalkyl substances.

Regulation	Applicability
SARA 302 Components	The following components are subject to reporting levels established by SARA Title III, Section 302: Sulfuric acid CAS number: 7664-93-9
SARA 313 Components	The following components are subject to reporting levels established by SARA Title III, Section 313: Sulfuric acid CAS number: 7664-93-9
SARA 311/312 Hazards	Acute Health Hazard, Chronic Health Hazard
Canadian Domestic Substances List (DSL)	Chemical name: Sulfuric acid CAS: 7664-93-9
Canadian Domestic Substances List (DSL)	Chemical name: Phosphoric acid CAS: 7664-38-2
Canadian Domestic Substances List (DSL)	Chemical name: Ammonium fluoride ((NH4)(HF2)) CAS: 1341-49-7
Canadian Domestic Substances List (DSL)	Chemical name: Ethanol, 2-butoxy- CAS: 111-76-2

15.2 Chemical Safety Assessment

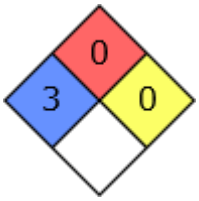
A Chemical Safety Assessment (CSA) has not been carried out for this mixture. (Under EU REACH, CSAs are performed for substances; this product is a mixture formulated from registered substances.)

Annex: Voluntary Chemical Safety Assessment (summary)
Ingestion: This product is corrosive and harmful if swallowed. Ingestion may cause severe burns to the mouth, throat, esophagus, and stomach, with pain, nausea, vomiting, and abdominal distress. Due to the presence of fluoride compounds, ingestion may also result in systemic toxicity, including disturbances in calcium and magnesium balance. Do not induce vomiting. Seek immediate medical attention.
Eye Contact: This product causes serious eye damage. Contact may result in severe pain, redness, tearing, chemical burns, corneal injury, and possible permanent vision damage. Immediately rinse cautiously with water and obtain urgent medical attention.
Skin Contact: This product causes severe skin burns. Due to fluoride content, skin exposure may result in delayed deep tissue injury even when initial pain appears limited. Symptoms may include redness, pain, blistering, ulceration, and tissue destruction. Immediate rinsing and medical treatment are required. Calcium gluconate gel should be available where this product is handled.
Respiratory Issues: Inhalation of mist, vapors, or spray may cause respiratory tract irritation, coughing, throat discomfort, shortness of breath, and possible delayed effects. Due to the corrosive acidic nature and fluoride content, significant inhalation exposure requires immediate medical evaluation.

HMIS Rating

ALUM BRITE 4	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	H

NFPA Rating



SECTION 16: Other information

This Safety Data Sheet has been revised as of the issue date indicated in the footer. Changes may include updates to composition, hazard classification, physical and chemical properties, toxicological information, and regulatory data. Previous versions should be discarded. Users are advised to review the entire document to ensure awareness of current information.

16.1 Further information/disclaimer

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16.2 Preparation information

Prepared in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200), as revised in 2024, and aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), Revision 7.