

Safety Data Sheet

1. Identification

Name of the product: Aluminum Brightener FBS AB
 Recommended use: Helps brighten aluminum. Date prepared: March 2, 2015
 Use not recommended: Not for use in any application that touches the body.
 Company: Fred Brewer Sales
 P.O. Box 376 412 N Hwy 277
 Elgin, OK 73538 Fletcher, OK 73541
 Telephone: 580-492-4656 fax: 580-549-6123
 email address: fredbrewersales@tds.net
 Transportation Emergency Number: Chemtrec 800-424-9300

2. Hazards identification

GHS Classification

Acute toxicity, Oral (Category 3), H301 Toxic if swallowed
 Corrosive to metals (Category 1), H290 May be corrosive to metals
 Skin corrosion (Category 1B), H314 Causes severe skin burns and eye damage.
 Serious eye damage (Category 1), H318 Causes serious eye damage.
 GHS Label elements, including Precautionary statements.

Pictogram:



Signal word: Danger

Hazard statements:

H301 Toxic if swallowed.
 H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious eye damage.

Precautionary statements:

P234 Keep only in original container.
 P260 Do not breathe dust or mist.
 P264 Wash skin 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, P3301, P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P303, P361, P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.
 Rinse skin with water/ shower.
 P304, P340: IF INHALED: Remove victim to fresh air and keep at rest in a position 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/ physician.
 P321 Specific treatment (see supplemental first aid instructions on this label).
 P363 Wash contaminated clothing before reuse.
 P390 Absorb spillage to prevent material damage.
 P233, P403: Keep container tightly closed. Store in a well-ventilated place.
 P501 Dispose of contents/ container to an approved waste disposal plant.
 Toxicity information was not found for 9.3% of the product (Ammonium bifluoride).

3. Composition / Information on ingredients

Chemical identity: Sulfuric acid H₂SO₄ 14.32%
 Common name: Sulfuric acid
 Numbers of identity: CAS 7664-93-9 EC 231-639-5
 Chemical identity: Ammonium hydrogen difluoride 9.3%
 Common name: Ammonium bifluoride
 Numbers of identity: CAS 1341-49-7 EC 215-676-4
 Impurities and other components: None which influence categorization.

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4. First-aid measures

General advice

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get medical attention.

Never give anything by mouth to an unconscious person.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water.

Consult a physician.

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Consult a physician.

IF IN EYES: Rinse continuously with water for at least 15 minutes and consult a physician.

Remove contact lenses if present and easy to do; continue rinsing.

Continue rinsing eyes during transport to hospital.

Most important symptoms will be severe pain in affected area, or considerable difficulty breathing.

5. Firefighting measures

Suitable extinguishing media : Product is not flammable.

Use equipment appropriate for the main cause of a fire.

Precautions:

Special protective equipment for firefighters:

Wear self contained breathing apparatus for fire fighting if necessary.

Flash point: Does not flash. Autoignition temperature: Does not ignite.

Specific hazards in case of fire: Nitrogen oxides (NO_x) and hydrogen fluoride vapors formed.

Sulfur oxide gas/ vapors formed from warm solution.

6. Accidental release measures

Personal protection:

Wear chemical goggles, body-covering protective clothing, chemical resistant gloves and rubber boots if deemed appropriate. Avoid breathing vapors. Ensure adequate ventilation. Evacuate affected area.

Environmental precautions: Keep product out of drains.

Methods and materials for containment and cleaning up:

Soak up with inert absorbent material and dispose of as hazardous waste.

Keep in suitable, closed containers for disposal.

For disposal see section 13.

7. Handling and storage

Precautions for safe handling:

NEVER add water to product as it may boil over or fume.

ALWAYS add product to water to avoid dangerous heating.

Avoid contact with eyes. Avoid skin contact and breathing mists/vapors.

Conditions for safe storage, including incompatibilities:

Keep in a cool well ventilated place. Keep away from caustics.

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8. Exposure controls / personal protection

Information on the system design:

Product is intended for external use only. Stay up wind, out of any spray developed.

Exposure Limits:

Component Name (CAS)	OSHA Table Z-1 Limits for Air Contaminants	ACGIH TWA mg/m3	STEL ppm
Sulfuric acid	CAS 7664-93-9	0.2 mg/m3	NE
	OSHA Table Z-1 Limits for Air Contaminants	1 mg/m3	NE
Ammonium bifluoride	CAS 1341-49-7	2.5 mg/m3 (TLV)	NE
	OSHA Table Z-1 Limits for Air Contaminants	2.5 mg/m3	NE

NE= Not Established

Personal protective equipment

Respiratory protection: If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand protection: Rubber gloves.

Eye protection: Safety glasses with side-shields.

Skin and body protection: Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely.

Hygiene measures

Wash hands and face before breaks and immediately after handling the product.

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance: Colorless to slightly yellow liquid

Odor: Pungent, characteristic acrid

Odor threshold: Not available

pH-value: Not available

Melting point: Not available

Freezing Point: Not available

Flammability (solid, gas): Not applicable

Explosion limits: Not explosive

Vapor pressure: (highest partial vapor pressure) at 20°C: Not available

Vapor density: Not available

Relative density (water=1.00): Not available

Solubility: Soluble in water.

Partition coefficient: Log Kow = Not applicable to mixture.

Auto-ignition temperature: Not available

Decomposition temperature: Not available

Viscosity: Like water

Initial boiling point:	Not available
Flash point:	Does not flash.
Evaporation rate:	Not applicable

10. Stability and reactivity

Chemical stability: No decomposition, if used according to specifications.

Possibility of hazardous reactions: Hydrogen may be formed by contact with metals.

Chemical stability: Stable.

Materials to avoid: Avoid contact with metals because flammable/explosive hydrogen may develop.

Avoid contact with alkalis and caustics as these react vigorously with the acid.

Hazardous decomposition products: Hydrogen formed from contact with metals.

Corrosive and dangerous fumes generated when solution is heated.

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11. Toxicological information

Acute Toxicity: No information available for finished product.

	Sulfuric acid	Ammonium bifluoride
Test	CAS 7664-93-9	CAS 1341-49-7
Oral Toxicity LD 50 (rat)	2,140 mg/kg	No data
Dermal Toxicity LD 50 (rat)	No data	No data
Inhalation Toxicity, Vapor (rat)	510 mg/m ³ - 2 hr	No data
Eye Irritation (Rabbit)	Corrosive	a priori corrosive.
Dermal Irritation (Rabbit)	Extremely corrosive	a priori corrosive.

Likely/ possible routes of exposure: Inhalation, ingestion, skin and eye contact.

Skin: The product is not expected to be toxic by skin absorption.

Oral: The product is not expected to be toxic by ingestion.

Inhalation: The product is not expected to be toxic by inhalation.

H305 May be harmful if swallowed and enters airways

Irritation

H315 Causes skin irritation.

H319 Causes serious eye irritation

H402 Harmful to aquatic life.

Sensitization: The product is not expected to be sensitizing.

Chronic toxicity: Prolonged skin contact may defat the skin and produce dermatitis.

Carcinogenicity: Not listed by NTP, IARC, OSHA or ACGIH as a suspect or potential carcinogen.

12. Ecological information

Persistence and degradability: There is no ecological information on the product.

This product is inorganic and is not expected to be inherently biodegradable, but is water soluble and can dissipate.

Bio-accumulative potential: There is no evidence to suggest bioaccumulation will occur.

Ecotoxicity: Sulfuric acid

Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 42 mg/l - 96 h

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment: No data.

13. Disposal considerations

Product as made has the characteristic of corrosivity and qualifies as:

" Unlisted Hazardous Waste D002", RQ 100#.

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

DOT (US)

UN number: 3264 Class: 8 Packing group: II

Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid, Ammonium hydrogen fluoride)

Reportable Quantity (RQ): Not possible in one non bulk container.

Poison Inhalation Hazard: No

15. Regulatory information

Inventory Status:

All components are on TSCA, EINECS/ELINCS, AICS, and DSL.

U.S. Regulations:

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:

SARA (311/312) HAZARD CATEGORIES:

Acute Health Hazard, Chronic Health Hazard

SARA 313: This product contains the following SARA 313 Toxic Release Chemicals.

Chemical Name CAS Number

Sulfuric acid CAS 7664-93-9

The following product components are cited on the lists below:

Chemical Name CAS Number

Water CAS 7732-18-5

Sulfuric acid CAS 7664-93-9

List Citations

RTK: PA, NJ

RTK: MA, PA, NJ

California Prop. 65 chemicals: This product contains chemicals known to State of California

to cause cancer, birth defects, or other reproductive harm: Sulfuric acid

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16. Other information

MSDS Preparation date: March 2, 2015

Hazard Categories:	Health	Fire	Pressure	Reactivity	Reference 49 CFR 171.8, OSHA 29 CFR 1910.1200 and SARA 302/311/312/313.
Immediate	Yes	No	No	No	
Delayed	No	No	XXX	XXX	
HMIS Hazard ratings: Health 3 Fire 0 Instability 0 Other B (Goggles, gloves)					
Hazard Ratings: Least: 0 Slight: 1 Moderate: 2 High: 3 Extreme: 4					

HMIS® is a registered trade and service mark of the NPCA.

This SDS contains all the information required for classification by the Canadian CPR.

This SDS is designed for workplace employees, emergency personnel and for conditions and situations where there is a greater potential for large-scale or prolonged exposure, in accordance with requirements of the U.S. Government's Occupational Safety and Health Administration (OSHA). It is not applicable for consumer use of our products.