

# Safety Data Sheet

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**Alumi-Shine**

**Product Number: I - 320**

## SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Alumi-Shine

**Containers** 5 gallon & 55 gallon

**Updated Date** **January 15, 2020**  
Supersedes: July 21, 2016

**Company** Encore Industrial Products  
P.O. Box 300  
Barker, TX 77413-0300

**Transportation Emergency (24 Hour) Contact**  
CHEM TEL 800-255-3924  
North America: 1-877-703-3044 Ex. 405

**Phone Number** (281) 944-4777  
(877) 703-3044  
Fax (281) 944-4778

**Medical Emergencies:**  
Contact your local Poison Control Center.

### Transportation

DOT: UN #2817, Ammonium hydrogenfluoride, solution, 8, PG II  
IATA: UN #2817, Ammonium hydrogenfluoride, solution, 8, PG II  
IMDG: UN #2817, Ammonium hydrogenfluoride, solution, 8, PG II

## SECTION 2 – HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### GHS-US classification

Acute toxicity (oral), Category 4	Harmful if swallowed
Skin corrosion/irritation, Category 1B	Causes severe skin burns and eye damage
Serious eye damage/eye irritation, Category 1	Causes serious eye damage
Carcinogenicity, Category 1A	May cause cancer

### 2.2. Label elements

#### GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Harmful if swallowed  
Causes severe skin burns and eye damage  
Causes serious eye damage  
May cause cancer (Dermal)

Precautionary statements (GHS-US) : Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Do not breathe vapours, spray, mist



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Wash hands thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Wear eye protection, protective gloves  
 If swallowed: Call a doctor if you feel unwell  
 If swallowed: rinse mouth. Do NOT induce vomiting  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 If inhaled: Remove person to fresh air and keep comfortable for breathing  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If exposed or concerned: Get medical advice/attention  
 Immediately call a doctor  
 Specific treatment (see First Aid measures on this label)  
 Rinse mouth  
 Wash contaminated clothing before reuse  
 Store locked up  
 Dispose of contents/container to an approved waste disposal plant

**2.3. Other hazards**

No additional information available

**2.4. Unknown acute toxicity (GHS US)**

Not applicable

### SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

**3.1. Substance**

Not applicable

**3.2. Mixture**

Name	Product identifier	%	GHS-US classification
ammonium hydrogen difluoride	(CAS No) 1341-49-7	8 - 9	Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314
sodium xylenesulfonate	(CAS No) 1300-72-7	3 - 4	Skin Irrit. 2, H315 STOT SE 3, H335 Eye Irrit. 2A, H319
sulfuric acid, conc>51%, aqueous solutions	(CAS No) 7664-93-9	0.5 - 1	Skin Corr. 1A, H314 Carc. 1A, H350

Full text of H-statements: see section 16

### SECTION 4 – FIRST AID MEASURES

**4.1. Description of first aid measures**

- 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).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell. Immediately call a POISON CENTER or doctor/physician.

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

- Symptoms/injuries : Causes severe skin burns and eye damage.
- Symptoms/injuries after eye contact : Causes serious eye damage.





### SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1. Control parameters

\*ammonium hydrogen difluoride (1341-49-7)

Not applicable

\*sodium xylenesulfonate (1300-72-7)

Not applicable

sulfuric acid, conc>51%, aqueous solutions (7664-93-9)		
ACGIH	Remark (ACGIH)	Pulm func
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

#### 8.2. Exposure controls

- Personal protective equipment : Avoid all unnecessary exposure.
  
- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or face shield.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Wear appropriate mask.
- Other information : Do not eat, drink or smoke during use.

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
  
- Color : Colorless
  
- Odor : acidic
  
- Odor threshold : No data available
  
- pH : No data available
  
- Melting point : No data available
  
- Freezing point : No data available
  
- Boiling point : No data available
  
- Flash point : No data available
  
- Relative evaporation rate (butylacetate=1) : No data available
  
- Flammability (solid, gas) : No data available
  
- Explosive limits : No data available
  
- Explosive properties : No data available

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Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: Water: Solubility in water of component(s) of the mixture : • ammonium hydrogen difluoride: 63 g/100ml • nonylphenoxy poly(ethyleneoxy) ethanol: soluble
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

**9.2. Other information**

No additional information available

### SECTION 10 – STABILITY AND REACTIVITY

**10.1. Reactivity**

Corrosive vapors.

**10.2. Chemical stability**

Not established.

**10.3. Possibility of hazardous reactions**

Not established.

**10.4. Conditions to avoid**

Direct sunlight. Extremely high or low temperatures.

**10.5. Incompatible materials**

Strong acids. Strong bases.

**10.6. Hazardous decomposition products**

Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapors.

### SECTION 11 – TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects**

Acute toxicity : Oral: Harmful if swallowed.

<b>TYPHOON</b>	
ATE US (oral)	1444.444 mg/kg bodyweight
<b>ammonium hydrogen difluoride (1341-49-7)</b>	
LD50 oral rat	130 mg/kg (Rat; Literature)



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**Product Number: I - 320**

ammonium hydrogen difluoride (1341-49-7)	
ATE US (oral)	130.000 mg/kg bodyweight

sulfuric acid, conc>51%, aqueous solutions (7664-93-9)	
LD50 oral rat	> 2140 mg/kg (Rat)

Skin corrosion/irritation : Causes severe skin burns and eye damage.  
 Serious eye damage/irritation : Causes serious eye damage.  
 Respiratory or skin sensitisation : Not classified  
 Germ cell mutagenicity : Not classified  
 Carcinogenicity : May cause cancer (Dermal).

sulfuric acid, conc>51%, aqueous solutions (7664-93-9)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Reproductive toxicity : Not classified  
 Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.  
 Symptoms/injuries after eye contact : Causes serious eye damage.  
 Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

## SECTION 12 – ECOLOGICAL INFORMATION

### 12.1. Toxicity

ammonium hydrogen difluoride (1341-49-7)	
LC50 fish 1	< 562 mg/l (LC50; 96 h; Brachydanio rerio)

sulfuric acid, conc>51%, aqueous solutions (7664-93-9)	
LC50 fish 1	42 mg/l (LC50; 96 h)
EC50 Daphnia 1	29 mg/l (EC50; 24 h)

### 12.2. Persistence and degradability

Alumi-Shine	
Persistence and degradability	Not established.

ammonium hydrogen difluoride (1341-49-7)	
Persistence and degradability	Biodegradability: not applicable. Not established.
ThOD	Not applicable

sulfuric acid, conc>51%, aqueous solutions (7664-93-9)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable



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<b>sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
ThOD	Not applicable

<b>sodium xylenesulfonate (1300-72-7)</b>	
Persistence and degradability	Biodegradability in water: no data available. Not established.

**12.3. Bioaccumulative potential**

<b>TYPHOON</b>	
Bioaccumulative potential	Not established.

<b>ammonium hydrogen difluoride (1341-49-7)</b>	
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

<b>sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
Log Pow	-2.20 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

<b>sodium xylenesulfonate (1300-72-7)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.

**12.4. Mobility in soil**

No additional information available

**12.5. Other adverse effects**

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

### SECTION 13 – DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods**
- Waste disposal recommendations** : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container approved waste disposal plant.
  - Ecology - waste materials** : Avoid release to the environment.

### SECTION 14 – TRANSPORT INFORMATION

- Department of Transportation (DOT)**  
**In accordance with DOT**
- Transport document description** : UN2817 Ammonium hydrogendifluoride, solution, 8, II
  - UN-No.(DOT)** : UN2817
  - Proper Shipping Name (DOT)** : Ammonium hydrogendifluoride, solution
  - Transport hazard class(es) (DOT)** : 8 - Class 8 - Corrosive material 49 CFR 173.136
  - Hazard labels (DOT)** : 8 - Corrosive  
6.1 - Poison



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**Packing group (DOT)** : II - Medium Danger  
**DOT Packaging Bulk (49 CFR 173.xxx)** : 243  
**DOT Packaging Exceptions (49 CFR 173.xxx)** : 154  
**DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)** : 1 L  
**DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)** : 30 L  
**DOT Vessel Stowage Location** : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.  
**DOT Vessel Stowage Other** : 40 - Stow "clear of living quarters"  
**Emergency Response Guide (ERG) Number** : 154  
**Other information** : No supplementary information available.

**TDG**  
 No additional information available

**Transport by sea**  
**UN-No. (IMDG)** : 2817  
**Proper Shipping Name (IMDG)** : AMMONIUM HYDROGEN DIFLUORIDE SOLUTION  
**Class (IMDG)** : 8 - Corrosive substances  
**Packing group (IMDG)** : II - substances presenting medium danger

**Air transport**  
**UN-No. (IATA)** : 2817  
**Proper Shipping Name (IATA)** : Ammonium hydrogendifluoride solution  
**Class (IATA)** : 8 - Corrosives  
**Packing group (IATA)** : II - Medium Danger

### SECTION 15 – REGULATORY INFORMATION

#### 15.1. US Federal regulations

##### ALUMI-SHINE

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) and 40 CFR Part 372.

sulfuric acid, conc>51%, aqueous solutions	CAS No 7664-93-9	0.5 - 1%
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<b>ammonium hydrogen difluoride (1341-49-7)</b>	
Not subject to reporting requirements of the United States SARA Section 313	
CERCLA RQ	100 lb

<b>sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
Not subject to reporting requirements of the United States SARA Section 313	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb





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<b>sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### National regulations

<b>sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>
Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer a reproductive harm

<b>ammonium hydrogen difluoride (1341-49-7)</b>
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

<b>sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16 – OTHER INFORMATION

Other information : None.

#### Full text of H-Statements:

- H301..... Toxic if swallowed
- H302..... Harmful if swallowed
- H314..... Causes severe skin burns and eye damage
- H315..... Causes skin irritation
- H318..... Causes serious eye damage
- H319..... Causes serious eye irritation
- H335..... May cause respiratory irritation
- H350..... May cause cancer

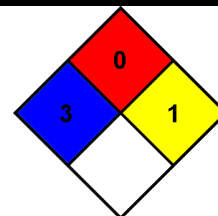


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NFPA health hazard	:	3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard	:	0 - Materials that will not burn.
NFPA reactivity	:	1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.
HMIS III Rating	:	
Health	:	3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability	:	0 Minimal Hazard - Materials that will not burn
Physical	:	1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.
Personal Protection	:	B B - Safety glasses, Gloves



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