

## 1. IDENTIFICATION

**Product Identifier**

**Product Name** Maxim Thumbs Up Aluminum Brightener

**Other Means of Identification**

**Product Code** 085000

**Recommended use of the Chemical and Restrictions on Use**

**Recommended Use** Aluminum brightener concentrate. For industrial & institutional use.

**Details of the Supplier of the Safety Data Sheet**

Midlab, Inc.  
140 Private Brand Way  
Athens, TN 37303

**Emergency Telephone Number**

**Company Phone Number** Phone: 1-423-337-3180  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Colorless

**Physical State** Liquid

**Odor** No added fragrance

**Classification**

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific Target Organ Toxicity – Single Exposure	Category 2
Specific Target Organ Toxicity – Repeated Exposure	Category 2
Corrosive to Metals	Category 1

**Signal Word**

**Danger**



**Hazard Statements**

Harmful if swallowed.  
Harmful in contact with skin.  
Causes severe skin burns and eye damage.  
May cause damage to lungs if inhaled.  
May cause damage to bones and teeth through prolonged or repeated exposure.  
May be corrosive to metals.

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Do not breathe dusts or mists.  
Wear protective gloves/protective clothing/eye protection/ face protection.  
Keep only in original packaging.

**Precautionary Statements - Response**

IF IN EYES: 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.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

SPECIFIC TREATMENT: Remove from exposure and consult a physician.

IN CASE OF SPILL: Absorb spillage to prevent material-damage.

#### **Precautionary Statements - Storage**

Store locked up.

Store in a corrosion resistant container with a resistant inner liner.

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant.

#### **Other Hazards**

Harmful to aquatic life with long lasting effects.

#### **Unknown Acute Toxicity**

None known.

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Chemical Name</b>	<b>CAS No</b>	<b>Weight-%</b>
Sulfuric Acid	7664-93-9	10-30
Ammonium Hydrogen Fluoride	1341-49-7	7-13
Phosphoric Acid	7664-38-2	1-5
Hydrochloric Acid	7647-01-0	1-5
Alcohols, C9-11, Ethoxylated	68439-46-3	1-5

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret\*\*

### **4. FIRST-AID MEASURES**

#### **First Aid Measures**

##### **General Advice**

If exposed or concerned: Get medical advice/attention. When seeking medical attention, emphasize exposure to sulfuric acid and ammonium bifluoride.

##### **Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove and discard contact lenses. Get immediate medical advice/attention.

##### **Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing. Wash contaminated clothing before reuse. Get medical advice immediately.

##### **Inhalation**

Remove to fresh air. Get medical attention immediately.

##### **Ingestion**

Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

#### **Most Important Symptoms and Effects**

##### **Symptoms**

Corrosive to eyes and skin. May cause hypocalcemia. May also cause bone and joint changes in humans (Fluorosis).

#### **Indication of any Immediate Medical Attention and Special Treatment Needed**

##### **Notes to Physician**

This product contains sulfuric acid and ammonium bifluoride.

### **5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**

Water spray (fog). Carbon dioxide (CO<sub>2</sub>). Dry chemical. Foam.

**Unsuitable Extinguishing Media**

Do not use water jet as an extinguisher, as this will spread the fire.

**Specific Hazards Arising from the Chemical**

Contents are corrosive and all personal contact must be avoided.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**

**Personal Precautions** Use personal protective equipment as required.

**Environmental Precautions** Avoid release to the environment.

**Methods and Material for Containment and Cleaning Up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Safety glasses, gloves and feet protection should be worn when cleaning up spillage. Absorb in vermiculite, dry sand or earth. Collect in a clean, dry waste container for disposal. Dilute with water and clean up.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

**Advice on Safe Handling** Wash thoroughly after handling. Use personal protection recommended in Section 8. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Use only in well-ventilated areas.

**Conditions for Safe Storage, including any Incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep locked up and out of reach of children. Keep only in original container. Keep from freezing.

**Incompatible Materials** Acids. Bases. Oxidizing agents. Uncontrolled contact with water. Silicate containing materials (glass, cement). Metals. Strong reducing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric Acid 7664-93-9	TWA: 0.2 mg/m <sup>3</sup> thoracic fraction	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup>	IDLH: 15 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>
Ammonium Hydrogen Fluoride 1341-49-7	TWA: 2.5 mg/m <sup>3</sup>	TWA: 2.5 mg/m <sup>3</sup>	TWA: 2.5 mg/m <sup>3</sup>
Phosphoric Acid 7664-38-2	STEL: 3 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup> (vacated) STEL: 3 mg/m <sup>3</sup>	IDLH: 1000 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Hydrochloric Acid 7647-01-0	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m <sup>3</sup> Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>

**Appropriate Engineering Controls**

**Engineering Controls** Use only in well-ventilated areas. Eyewash station or solution must be readily available when using this product.

**Individual Protection Measures, such as Personal Protective Equipment**

**Eye/Face Protection** Splash goggles or safety glasses.

**Skin and Body Protection** Rubber, Nitrile, PVC, or other chemically resistant skin protection to prevent contact.

**Respiratory Protection** Ensure adequate ventilation, especially in confined areas.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on Basic Physical and Chemical Properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	No added fragrance
<b>Appearance</b>	Clear	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Colorless		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>	<1	
<b>Melting Point/Freezing Point</b>	Not known	
<b>Boiling Point/Boiling Range</b>	Not determined	
<b>Flash Point</b>	Not applicable	
<b>Evaporation Rate</b>	Not determined	
<b>Flammability (Solid, Gas)</b>	n/a-liquid	
<b>Upper Flammability Limits</b>	Not determined	
<b>Lower Flammability Limit</b>	Not determined	
<b>Vapor Pressure</b>	Not determined	
<b>Vapor Density</b>	Not determined	
<b>Specific Gravity</b>	1.16	
<b>Water Solubility</b>	Completely soluble	@ 25 °C (77 °F)
<b>Solubility in other solvents</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Auto-ignition Temperature</b>	Not determined	
<b>Decomposition Temperature</b>	Not determined	
<b>Kinematic Viscosity</b>	Not determined	
<b>Dynamic Viscosity</b>	Not determined	
<b>Explosive Properties</b>	Not determined	
<b>Oxidizing Properties</b>	Not determined	

**10. STABILITY AND REACTIVITY****Reactivity**

Can react with alkaline substances and with uncontrolled contact with water.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

Gives off hydrogen by reaction with metals.

**Conditions to Avoid**

Keep out of reach of children. Keep from freezing. Avoid excessive heat. Do not mix with other chemicals. Uncontrolled contact with water.

**Incompatible Materials**

Acids. Bases. Oxidizing agents. Uncontrolled contact with water. Silicate containing materials (glass, cement). Metals. Strong reducing agents.

**Hazardous Decomposition Products**

Sulfur trioxide, hydrogen fluoride, ammonia, nitrogen oxides (NOx).

**11. TOXICOLOGICAL INFORMATION****Information on Likely Routes of Exposure****Product Information**

<b>Eye Contact</b>	Causes severe eye damage.
<b>Skin Contact</b>	Causes severe skin burns.
<b>Inhalation</b>	Avoid inhaling fumes or mists.
<b>Ingestion</b>	Do NOT ingest. Causes burns and may be harmful if swallowed.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sulfuric Acid 7664-93-9	= 2140 mg/kg (Rat)	-	= 510 mg/m <sup>3</sup> (Rat) 2 h
Ammonium Hydrogen Fluoride 1341-49-7	= 50 mg/kg (Rat)	> 200 mg/kg (Rabbit)	= 1276 ppm/ 1hr (Rat)
Phosphoric Acid 7664-38-2	= 1530 mg/kg (Rat)	= 2730 mg/kg (Rabbit)	> 850 mg/m <sup>3</sup> (Rat) 1 h
Hydrochloric Acid 7647-01-0	= 700 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 3124 ppm (Rat) 1 h
Alcohols, C9-11, Ethoxylated 68439-46-3	= 2000 mg/kg	= 2000 mg/kg	-

**Information on Physical, Chemical and Toxicological Effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure**

**Carcinogenicity** Note: The agencies below have listed Strong Inorganic Acid Mists, Containing Sulfuric Acid as a known carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sulfuric Acid 7664-93-9	A2	Group 1	Known	X

**Legend****ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Numerical Measures of Toxicity**

Not determined

**Unknown Acute Toxicity** None known.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Harmful to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea

Sulfuric Acid 7664-93-9	-	500: 96 h Brachydanio rerio mg/L LC50 static	-	29: 24 h Daphnia magna mg/L EC50
Phosphoric Acid 7664-38-2	-	3 - 3.5: 96 h Gambusia affinis mg/L LC50	-	4.6: 12 h Daphnia magna mg/L EC50
Hydrochloric Acid 7647-01-0	-	282: 96 h Gambusia affinis mg/L LC50 static	-	-
Alcohols, C9-11, Ethoxylated 68439-46-3	-	7.25 mg/L (96hr)	-	5.5 mg/L (Daphnia 48hr)

**Persistence/Degradability**

Not determined

**Bioaccumulation**

Not determined

**Mobility in Soil**

Not determined

**Other Adverse Effects**

Not determined

### 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Status**

Chemical Name	California Hazardous Waste Status
Sulfuric Acid 7664-93-9	Toxic Corrosive
Phosphoric Acid 7664-38-2	Corrosive

### 14. TRANSPORT INFORMATION

**Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

UN3264, Corrosive Liquid, Acidic, Inorganic, N.O.S. (Containing Sulfuric Acid and Ammonium Hydrogen Fluoride), 8, PG II

**IATA****IMDG****Marine Pollutant**

This material may meet the definition of a marine pollutant

### 15. REGULATORY INFORMATION

**International Inventories**Canada – Domestic Substances List (DSL)  
TSCA (Toxic Substances Control Act)All ingredients are listed or exempt.  
All ingredients are listed or exempt.**Legend:***TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List***US Federal Regulations**

**CERCLA**

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sulfuric Acid 7664-93-9	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
Ammonium Hydrogen Fluoride 1341-49-7	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ
Phosphoric Acid 7664-38-2	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Hydrochloric Acid 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Reactive Hazard	Yes

**SARA 313**

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Sulfuric Acid	7664-93-9	10-30	1.0
Hydrochloric cid	7647-01-0	1-5	1.0

**CWA (Clean Water Act)**

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sulfuric Acid 7664-93-9	1000 lb			X
Phosphoric Acid 7664-38-2	5000 lb			X
Hydrochloric Acid 7647-01-0	5000 lb			X

**US State Regulations****U.S. State Right-to-Know Regulations**

Chemical Name	State List
Sulfuric Acid 7664-93-9	CAP65, MA, NJ, PA
Ammonium Hydrogen Fluoride 1341-49-7	NJ
Phosphoric Acid 7664-38-2	MA, NJ, PA
Hydrochloric Acid 7647-01-0	MA, NJ, PA

AZ – Arizona Ambient Air Quality Guidelines  
 CT – Connecticut Hazardous Air Pollutants  
 CA – California Director's List of Hazardous Substances  
 CAP65 – California Prop 65  
 FL – Florida Substances List  
 ID – Idaho Non-Carcinogen Toxic Air Pollutants

IL – Illinois Toxic Air Contaminant- Carcinogenic  
 MA – Massachusetts Right to Know List  
 MN – Minnesota Hazardous Substances List  
 NJ – New Jersey Right to Know List  
 PA – Pennsylvania Right to Know List  
 RI – Rhode Island Hazardous Substances List

<b>16. OTHER INFORMATION</b>
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<b><u>NFPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	Not determined	Not determined	Not determined	Not determined
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	3	0	2	Glasses, gloves

<b>Issue Date</b>	08-Aug-2011
<b>Revision Date:</b>	16-Jun-2025
<b>Revision Note</b>	Version 1.1 Updated Sections 2,3 & 14.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Keep Out of Reach of Children. For Industrial and Institutional Use Only.**

\*Denotes changes from last version.

**End of Safety Data Sheet**