

1. IDENTIFICATION

Product Identifier

Product Name Thumbs Up

Other Means of Identification

Product Code 085000

Recommended use of the Chemical and Restrictions on Use

Recommended Use Aluminum brightener concentrate. For industrial 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 None

Classification

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 2
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A
Corrosive to Metals	Category 1

Signal Word

Danger

Hazard Statements

Toxic if swallowed.
Fatal in contact with skin.
Fatal if inhaled.
Causes severe skin burns and eye damage.
May cause cancer.
May be corrosive to metals.



Precautionary Statements - Prevention

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Use personal protective equipment as required.
 Wash face, hands and any exposed skin thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Do not get in eyes, on skin, or on clothing.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Use only outdoors or in a well-ventilated area.
 Wear respiratory protection.
 Keep only in original container.

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention.
 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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 Immediately call a POISON CENTER or doctor/physician.
 Wash contaminated clothing before reuse.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Immediately call a POISON CENTER or doctor/physician.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 Rinse mouth. Do not induce vomiting.
 IN CASE OF SPILL: Absorb spillage to prevent material damage.

Precautionary Statements - Storage

Store locked up.
 Store in a well-ventilated place. Keep container tightly closed.
 Store in corrosive 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

2% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Water	7732-18-5	60-100
Sulfuric Acid	7664-93-9	10-30
Phosphoric Acid	7664-38-2	1-5
Hydrofluoric Acid	7664-39-3	1-5
Hydrochloric Acid	7647-01-0	1-5
Nonylphenoxypolyethoxyethanol	68412-54-4	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 hydrofluoric acid.
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 attention immediately.

Inhalation	Remove to fresh air. Get medical attention immediately.
Ingestion	Rinse mouth. Drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

Most Important Symptoms and Effects

Symptoms	Irritation and corrosive burns to mouth, throat, and stomach. Corrosive to eyes. Prolonged contact may even cause severe skin irritation or mild burn. May cause hypocalcemia. Can also cause bone and joint changes in humans (Fluorosis).
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Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician	This product contains hydrofluoric acid.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray (fog). Carbon dioxide (CO₂). Dry chemical. Foam.

Unsuitable Extinguishing Media

Not determined.

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.
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Environmental Precautions	Avoid release to the environment.
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Methods and Material for Containment and Cleaning Up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
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Methods for Clean-Up	Collect spillage. Collect in a clean, dry waste container for disposal. Dilute with water and clean up.
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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.
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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.
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Incompatible Materials	Acids. Bases. Oxidizing agents. Uncontrolled contact with water.
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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 ³ thoracic fraction	TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³	IDLH: 15 mg/m ³ TWA: 1 mg/m ³
Phosphoric Acid 7664-38-2	STEL: 3 mg/m ³ TWA: 1 mg/m ³	TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³ (vacated) STEL: 3 mg/m ³	IDLH: 1000 mg/m ³ TWA: 1 mg/m ³ STEL: 3 mg/m ³
Hydrofluoric Acid 7664-39-3	TWA: 0.5 ppm F TWA: 2.5 mg/m ³ F S* Ceiling: 2 ppm F	TWA: 3 ppm F TWA: 2.5 mg/m ³ F TWA: 2.5 mg/m ³ dust (vacated) TWA: 3 ppm F (vacated) TWA: 2.5 mg/m ³ (vacated) STEL: 6 ppm F	IDLH: 30 ppm Ceiling: 6 ppm 15 min Ceiling: 5 mg/m ³ 15 min TWA: 3 ppm TWA: 2.5 mg/m ³
Hydrochloric Acid 7647-01-0	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m ³ Ceiling: 5 ppm Ceiling: 7 mg/m ³	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³

Appropriate Engineering Controls

Engineering Controls Ventilation systems. Eyewash stations. Showers.

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

Physical State	Liquid	Odor	None
Appearance	Clear	Odor Threshold	Not determined
Color	Colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	<1	
Melting Point/Freezing Point	Not known	
Boiling Point/Boiling Range	100.5 °C / 213 °F	
Flash Point	Not applicable	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.18	
Water Solubility	Completely soluble	@ 25 °C (77 °F)
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children. Keep from freezing.

Incompatible Materials

Acids. Bases. Oxidizing agents. Uncontrolled contact with water.

Hazardous Decomposition Products

When exposed to fire, produces normal products of combustion.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact	Causes severe eye damage.
Skin Contact	Causes severe skin burns. Fatal in contact with skin.
Inhalation	Fatal if inhaled.
Ingestion	Toxic if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sulfuric Acid 7664-93-9	= 2140 mg/kg (Rat)	-	= 510 mg/m ³ (Rat) 2 h
Phosphoric Acid 7664-38-2	= 1530 mg/kg (Rat)	= 2730 mg/kg (Rabbit)	> 850 mg/m ³ (Rat) 1 h
Hydrofluoric Acid 7664-39-3	-	-	= 850 mg/m ³ (Rat) 1 h = 1276 ppm (Rat) 1 h
Hydrochloric Acid 7647-01-0	= 700 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 3124 ppm (Rat) 1 h

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
Hydrochloric Acid 7647-01-0		Group 3		

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

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

2% of the mixture consists of ingredient(s) of unknown toxicity.

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
Hydrofluoric Acid 7664-39-3	-	660: 48 h Leuciscus idus mg/L LC50	-	270: 48 h Daphnia species mg/L EC50
Hydrochloric Acid 7647-01-0	-	282: 96 h Gambusia affinis mg/L LC50 static	-	-

Persistence/Degradability

Not determined

Bioaccumulation

Not determined

Mobility

Chemical Name	Partition Coefficient
Hydrofluoric Acid 7664-39-3	-1.4

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.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Hydrofluoric Acid 7664-39-3	U134			U134

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, NOS (Containing Hydrofluoric Acid and Sulfuric Acid), 8, PG II

IATA

IMDG
Marine Pollutant This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Not determined

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
Phosphoric Acid 7664-38-2	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Hydrofluoric Acid 7664-39-3	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 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
Hydrofluoric Acid	7664-39-3	1-5	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
Hydrofluoric Acid 7664-39-3	100 lb			X
Hydrochloric Acid 7647-01-0	5000 lb			X

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	State List
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Sulfuric Acid 7664-93-9	CAP65, MA, NJ, PA
Phosphoric Acid 7664-38-2	MA, NJ, PA
Hydrofluoric Acid 7664-39-3	MA, NJ, PA
Hydrochloric Acid 7647-01-0	MA, NJ, PA

AZ – Arizona Ambient Air Quality Guidelines	IL – Illinois Toxic Air Contaminant- Carcinogenic
CT – Connecticut Hazardous Air Pollutants	MA – Massachusetts Right to Know List
CA – California Director’s List of Hazardous Substances	MN – Minnesota Hazardous Substances List
CAP65 – California Prop 65	NJ – New Jersey Right to Know List
FL – Florida Substances List	PA – Pennsylvania Right to Know List
ID – Idaho Non-Carcinogen Toxic Air Pollutants	RI – Rhode Island Hazardous Substances List

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	Not determined	Not determined	Not determined	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	4	0	1	Not determined

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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