

PURPLE POWER, INC.

Safety Data Sheet Aluminum Brightener

SECTION 1: Identification

1.1 Product identifier

Product name	Aluminum Brightener
Product number	1458, 1478
Brand	MAC'S

1.4 Supplier's details

Name	Purple Power, Inc.
Address	P.O. Box 27147 Greenville, SC 29616 U.S.
Telephone	864-968-1250
Fax	864-968-1252
email	Drayton@clean-rite.com

1.5 Emergency phone number(s) 800-424-9300

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

- Acute toxicity, oral, Cat. 4
- Eye damage/irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1A

2.2 GHS label elements, including precautionary statements.

Pictogram



Signal word

Danger

Hazard statement(s)

H302
H314
H318

Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes serious eye damage.

Precautionary statement(s)

P260

Do not breathe fume/mist/vapors/spray.

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P264	Wash 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+P312	IF SWALLOWED: Call a POISON CENTER /doctor
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/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.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.

SECTION 3: Composition/information on ingredients

3.1 Substances

Hazardous components

1. Butoxyethanol

Concentration 1 - 5 % (weight)
CAS no. 111-76-2

2. Ammonium bifluoride

Concentration 1 - 5 % (weight)
CAS no. 1341-49-7

3. Phosphoric acid

Concentration 1 - 10 % (weight)
CAS no. 7664-38-2

4. Sulfuric acid

Concentration 1 - 10 % (weight)
CAS no. 7664-93-9

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician/doctor if necessary. Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Show this material safety data sheet to the doctor in attendance.
If inhaled	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Consult a physician. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water
In case of skin contact	Remove contaminated clothing, jewelry and shoes immediately. Flush affected area with large amounts of water, then use soap or mild detergent

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and large amounts of water for 15-20 minutes to cleanse area. Get medical attention if you feel unwell.

In case of eye contact

Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get immediate medical attention.

If swallowed

Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

Personal protective equipment for first-aid responders

First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

4.2 Most important symptoms/effects, acute and delayed.

Effects of Overexposure: May cause severe burns to skin or eyes.

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

If any symptoms listed about become present and or persist, contact a physician immediately. Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

5.2 Specific hazards arising from the chemical.

Hydrogen fluoride, nitrogen oxides, ammonia may be produced if overheated.

5.3 Special protective actions for fire-fighters

Fire fighters should enter area only if they are protected from all contact with the material. Full protective clothing, including self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms, and waist, should be worn. No skin surfaces should be exposed.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Dam spills if possible; then neutralize spill with soda ash or lime. Flush with water to a chemical sewer or disposal system. This neutralization procedure should be conducted with good ventilation. Wear chemical protective clothing, gloves and goggles.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up.

SMALL SPILLS: Contain and absorb with absorbent material and place into containers for later disposal. Wash site of spillage thoroughly with water. LARGE SPILLS: Dike far ahead of spill to prevent further movement. Recover by pumping or by using a suitable absorbent material and place into containers for later disposal. Dispose in suitable waste container.

Reference to other sections

Use proper personal protective equipment as indicated in Section 8.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure adequate ventilation. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities.

Store in a tightly closed container and in a cool, dry, well-ventilated area away from incompatible substances.

Specific end use(s)

Cleans and brightens cast aluminum surfaces. Cleans stainless steel. Can be used to clean Copper and Brass. May be used on fiberglass.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. 2-Butoxyethanol (CAS: 111-76-2 EC: 203-905-0)

PEL (Inhalation): 240 mg/m³ (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 20 ppm (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 5 ppm (NIOSH)

OSHA Annotated Table Z-1, www.osha.gov

TWA (Inhalation): 20 ppm; USA (ACGIH)

USA. ACGIH Threshold Limit Values (TLV)/Upper Respiratory Tract Irritation Eye irritation Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans

2. Ammonium bifluoride (CAS: 1341-49-7 EC: 215-676-4)

TWA (Inhalation): 2.5 mg/m³ (OSHA)

TLV® (Inhalation): 2.5 mg/m³ (ACGIH)

3. Phosphoric acid (CAS: 7664-38-2 EC: 231-633-2)

PEL (Inhalation): 1 mg/m³; USA (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 1 mg/m³, (ST) 3 mg/m³; USA (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 1 mg/m³, (ST) 3 mg/m³; USA (NIOSH)

OSHA Annotated Table Z-1, www.osha.gov

TLV® (Inhalation): 1 mg/m³, (ST) 3 mg/m³; USA (ACGIH)

OSHA Annotated Table Z-1, www.osha.gov

4. Sulfuric acid (CAS: 7664-93-9 EC: 231-639-5)

PEL (Inhalation): 0.1 mg/m³, (ST) 3 mg/m³ (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 1 mg/m³; USA (NIOSH)

OSHA Annotated Table Z-1, www.osha.gov

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TWA (Inhalation): 0.2 mg/m³; USA (ACGIH)
USA. ACGIH Threshold Limit Values (TLV)

TWA (Inhalation): 1 mg/m³; USA (OSHA)
USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

8.2 Appropriate engineering controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

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

Pictograms



Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Protective Gloves: Wear appropriate protective gloves to prevent skin exposure. Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure.

Body protection

Choose body protection in relation to its type, to the concentration and number of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Distribution, Workplace and Household Settings: No special protective equipment required. Product Manufacturing Plant (needed at Product-Producing Plant ONLY): In case of insufficient ventilation wear suitable respiratory equipment

Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Clear/Colorless
Odor	Slight acidic odor
Odor threshold	No data available.
pH	3
Melting point/freezing point	0°C
Initial boiling point and boiling range	100°C
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available. No data available.
Upper/lower flammability limits	No data available.
Vapor pressure	No data available.

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Vapor density	No data available.
Relative density	1.0588
Solubility(ies)	Complete in water.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Low reactivity with metals. None under normal use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Low

10.4 Conditions to avoid

Extremely high temperatures. over exposure to metals.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx), Hydrogen fluoride Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

All data is collected from supplier SDS's or historical data. Aiken Chemicals performs no animal testing.

LD50 Oral Rat 2826.58 mg/kg (Not Classified)

LC50 Inhalation Rat 25803.13 mg/l (Not Classified)

LD50 Dermal Rabbit 12.1307 mg/kg (Not Classified)

Skin corrosion/irritation

Expected to cause skin burns/irritation.

Serious eye damage/irritation

Expected to cause serious eye irritation.

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Respiratory or skin sensitization

not expected to cause skin sensitization.

Germ cell mutagenicity

No data available

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

SECTION 12: Ecological information

Toxicity

All data is collected from supplier SDS's or historical data. Aiken Chemicals performs no animal testing.

Fish: 398.49 mg/l (not classified)

Daphnia magna: 1410.37 mg/l (not classified)

algae: 1413.21 mg/l (not classified)

Persistence and degradability

82.50 of components are readily biodegradable.

17.50% of components have no data.

Bioaccumulate potential

0.00% of components will bioaccumulate.

0.00% of components will not bioaccumulate

100.00% of components have no data

Mobility in soil

0.00% of components have mobility in soil.

0.00% of components have no mobility in soil.

100.00% of components have no data.

SECTION 13: Disposal considerations

Disposal of the product

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Dispose in accordance with all applicable federal, state, and local regulation. Contact your federal, state, and local authorities for specific rules.

Disposal of contaminated packaging

Dispose of as unused product.

Waste treatment

No data available.

Sewage disposal

No data available.

Other disposal recommendations

No data available.

SECTION 14: Transport information

DOT (US)

DOT (US)

UN Number: 1760

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive liquid N.O.S. (Ammonium bifluoride, Sulfuric Acid, Phosphoric Acid)

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:
Sulfuric acid CAS-No. 7664-93-9

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:
2-Butoxyethanol CAS-No. 111-76-2
Sulfuric acid CAS-No. 7664-93-9

SARA 311/312 Hazards

Acute Health Hazard

Pennsylvania Right to Know Components

Chemical name: Ethanol, 2-butoxy- CAS number: 111-76-2
Chemical name:

Massachusetts Right to Know Components

Chemical name: Ethanol, 2-butoxy- CAS number: 111-76-2
Chemical name:

New Jersey Right to Know Components

Chemical name: Ethanol, 2-butoxy- CAS number: 111-76-2

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Chemical name:

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

15.2 Chemical Safety Assessment

NFPA (National Fire Protection Association)

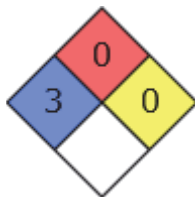
HMIS (Hazardous Material Information System)

Hazards are split into categories each with a 0 to 4 rating, 0 meaning no hazard and 4 meaning high hazard.

HMIS Rating

Aluminum Brightener	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

NFPA Rating



SECTION 16: Other information

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or biological material

fw = fresh water

mw = marine water

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or = occasional release

dw = dry weight

SCBA = Self Contained Breathing Apparatus

Legend

Section 8

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH - National Institute for Occupational Safety and Health

TLV - Threshold Limit Values

PEL - Permissible Exposure Limits

IDHL - Immediately Dangerous to Life or Health concentrations

TWA - Time Weight Average

STEL - Short Term Exposure Limits

S* - Skin notation

TSCA - Toxic Substance Control Act

16.1 Further information/disclaimer

The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship. Safety Data Sheet information is based on the individual ingredients Safety Data Sheets provided by the supplier.

16.2 Preparation information

Purple Power, Inc.

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Greenville, SC, 29616

864-968-1250

800-828-1860

864-968-1252 (fax)