SAFETY DATA SHEET

Issuing Date No data available **Revision Date** 18-Aug-2014 **Revision Number** 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **Aluminum Brightener**

Other means of identification

UN-No. UN2922

Synonyms Part # J70

Recommended use of the chemical and restrictions on use

Recommended Use Tire and Wheel Cleaner (All types but Aerosol)

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name Superior Products Co
Supplier Address 6962 Highway 111
S. Roxana
IL
62087
US
Supplier Phone Number Phone:800 424-9300
Fax:618 254-7421
Contact Phone618 254-7400
Supplier Email sds@superiorproducts.com
Emergency telephone number **800 424-9300**

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 2
Acute toxicity - Dermal	Category 1
Acute toxicity - Inhalation (Gases)	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Danger**

Hazard Statements
Fatal if swallowed
Fatal in contact with skin
Fatal if inhaled
Causes severe skin burns and eye damage

Appearance Light Tan **Physical State** Liquid **Odor** Acidic

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 get in eyes, on skin, or on clothing
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Wear respiratory protection

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
Specific treatment (see supplemental first aid instructions on this label)

Eyes
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

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

Inhalation
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

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

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity
0.0006% of the mixture consists of ingredient(s) of unknown toxicity

Other information

No information available

Interactions with Other Chemicals
Use of alcoholic beverages may enhance toxic effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

.

Chemical Name	CAS No.	Weight-%	Trade Secret
Hydrogen fluoride	7664-39-3	2 – 5	*
Phosphoric acid	7664-38-2	1 – 3	*
2-Butoxyethanol	111-76-2	1 – 3	*
Ethylene oxide-Nonylphenol polymer	9016-45-9	1 - 3	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice
Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.

Eye Contact
In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Skin Contact
For minor skin contact, avoid spreading material on unaffected skin.

Inhalation
Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

Ingestion
Do NOT induce vomiting. Rinse mouth. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Self-protection of the first aider
Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects
Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
Keep victim warm and quiet. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Dry chemical, CO2 or water spray. Dry chemical, CO2, alcohol-resistant foam or water spray. Move containers from fire area if you can do it without risk. Dike fire control water for later disposal; do not scatter the material.

Unsuitable Extinguishing Media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical
Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.).

Uniform Fire Code Corrosive: Acid-Liquid

Hazardous Combustion Products
Carbon oxides.

Explosion Data
Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

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 ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if you can do it without risk.

Other Information DO NOT GET WATER INSIDE CONTAINERS.

Environmental Precautions

Environmental Precautions Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for Containment Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Methods for cleaning up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Do not breathe vapor or mist.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

Incompatible Products Acids. Bases. Oxidizing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen fluoride 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
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
2-Butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m^3 (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m^3 (vacated) S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m^3

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Face protection shield.

Skin and Body Protection Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves.

Respiratory Protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. For environmental protection, remove and wash all contaminated protective equipment before re-use. No information available. Do not breathe vapor or mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Liquid		
Appearance	Tan	**Odor**	Acidic
Color	No information available	**Odor Threshold**	No information available

Property	Values	Remarks/ Method
pH	2	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	No data available	None known
Water Solubility	Completely soluble	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition Temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.

Conditions to avoid
Exposure to air or moisture over prolonged periods. Excessive heat.

Incompatible materials
Acids. Bases. Oxidizing agent.

Hazardous Decomposition Products Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information. .
Inhalation	Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May be fatal if inhaled.
Eye Contact	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.
Skin Contact	Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation. May be fatal if absorbed through skin. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Toxic if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrogen fluoride 7664-39-3	-	-	= 1276 ppm (Rat) 1 h
Phosphoric acid 7664-38-2	= 1530 mg/kg (Rat)	= 2730 mg/kg (Rabbit)	> 850 mg/m^3 (Rat) 1 h
2-Butoxyethanol 111-76-2	= 470 mg/kg (Rat)	= 220 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
Ethylene oxide- Nonylphenol polymer 9016-45-9	-	= 1780 µL/kg (Rabbit)	-

Information on toxicological effects

Symptoms Erythema (skin redness). Burning. May cause blindness. Coughing and/ or wheezing. Difficulty in breathing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
2-Butoxyethanol 111-76-2	A3	Group 3		

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Effects from this product caused by acute exposure may cause permanent damage to target organs and/or may cause chronic conditions. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects. Carcinogenic potential is unknown.

Target Organ Effects Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Systemic Toxicity. Blood. Central Nervous System (CNS). Hematopoietic system. Kidney. Liver. Bone. Cardiovascular system. Endocrine system. Pancreas. Testes. Teeth. Thyroid.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)
41.00 mg/kg
ATEmix (dermal)
42.00 mg/kg (ATE)
ATEmix (inhalation-gas)
826.00 ppm (4 hr)

ATEmix (inhalation-dust/mist)
0.41 mg/l
ATEmix (inhalation-vapor) 4.00 ATEmix

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life.

Persistence and Degradability
No information available.

Bioaccumulation

Chemical Name	Log Pow
Hydrogen fluoride 7664-39-3	-1.4
2-Butoxyethanol 111-76-2	0.81

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Dispose of contents/containers in accordance with local regulations.

US EPA Waste Number D002

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Hydrogen fluoride 7664-39-3	U134			U134

California Hazardous Waste Codes 791

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Phosphoric acid 7664-38-2	Corrosive

14. TRANSPORT INFORMATION

DOT

UN-No.	UN2922
Proper Shipping Name	CORROSIVE LIQUIDS, TOXIC, N.O.S.
Hazard Class	8
Subsidiary class	6.1
Packing Group	II

Description	UN2922, CORROSIVE LIQUIDS, TOXIC, N.O.S. (HYDROGEN FLUORIDE, 2-BUTOXYETHANOL), 8 (6.1), II, POISON
Emergency Response Guide Number	154

TDG

UN-No.	UN2922
Proper Shipping Name	CORROSIVE LIQUID, TOXIC, N.O.S.
Hazard Class	8
Subsidiary class	6.1
Packing Group	II
Description	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROGEN FLUORIDE, 2-BUTOXYETHANOL), 8 (6.1), II

MEX

UN-No.	UN2922
Proper Shipping Name	CORROSIVE LIQUID, TOXIC, N.O.S.
Hazard Class	8
Subsidiary class	6.1
Packing Group	II
Description	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROGEN FLUORIDE, 2-BUTOXYETHANOL), 8 (6.1), II

ICAO

UN-No.	UN2922
Proper Shipping Name	CORROSIVE LIQUID, TOXIC, N.O.S.
Hazard Class	8
Subsidiary class	6.1
Packing Group	II
Description	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROGEN FLUORIDE, 2-BUTOXYETHANOL), 8 (6.1), II

IATA

UN-No.	UN2922
Proper Shipping Name	CORROSIVE LIQUID, TOXIC, N.O.S.
Hazard Class	8
Subsidiary class	6.1
Packing Group	II
Description	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROGEN FLUORIDE, 2-BUTOXYETHANOL), 8 (6.1), II

IMDG/IMO

UN-No.	UN2922
Proper Shipping Name	CORROSIVE LIQUID, TOXIC, N.O.S.
Hazard Class	8
Subsidiary class	6.1
Packing Group	II
EmS No.	F-A, S-B
Description	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROGEN FLUORIDE, 2-BUTOXYETHANOL), 8 (6.1), II

RID

UN-No.	UN2922
Proper Shipping Name	CORROSIVE LIQUID, TOXIC, N.O.S.
Hazard Class	8
Packing Group	II
Classification code	CT1
Description	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROGEN FLUORIDE, 2-BUTOXYETHANOL), 8 (6.1), II
ADR/RID-Labels	6.1

ADR

UN-No.	UN2922
Proper Shipping Name	CORROSIVE LIQUID, TOXIC, N.O.S.
Hazard Class	8
Packing Group	II
Classification code	CT1
Tunnel restriction code	(E)
Description	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROGEN FLUORIDE, 2-BUTOXYETHANOL), 8 (6.1), II
ADR/RID-Labels	6.1

ADN

UN-No.	UN2922
Proper Shipping Name	CORROSIVE LIQUID, TOXIC, N.O.S.
Hazard Class	8
Packing Group	II
Classification code	CT1
Special Provisions	274, 802
Description	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROGEN FLUORIDE, 2-BUTOXYETHANOL), 8 (6.1), II
Hazard Labels	6.1
Limited Quantity	1 L
Ventilation	VE02

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.
IECSC	-

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Hydrogen fluoride - 7664-39-3	7664-39-3	7 - 13	1.0
2-Butoxyethanol - 111-76-2	111-76-2	3 - 7	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrogen fluoride 7664-39-3	100 lb			X
Phosphoric acid 7664-38-2	5000 lb			X

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Hydrogen fluoride 7664-39-3	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

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

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Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Water 7732-18-5			-		
Hydrogen fluoride 7664-39-3	X	X	X	X	X
Phosphoric acid 7664-38-2	X	X	X	X	
2-Butoxyethanol 111-76-2	X	X	X	X	X

International Regulations

Mexico
National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Hydrogen fluoride 7664-39-3 (7 - 13)		Mexico: Ceiling 3 ppm Mexico: Ceiling 2.5 mg/m^3
Phosphoric acid 7664-38-2 (3 - 7)		Mexico: TWA 1 mg/m^3 Mexico: STEL 3 mg/m^3
2-Butoxyethanol 111-76-2 (3 - 7)		Mexico: TWA 26 ppm Mexico: TWA 120 mg/m^3 Mexico: STEL 75 ppm Mexico: STEL 360 mg/m^3

Mexico - Occupational Exposure Limits - Carcinogens

Canada
WHMIS Hazard Class
Non-controlled

16. OTHER INFORMATION

NFPA	**Health Hazards** 3	**Flammability** 0	**Instability** 0	**Physical and Chemical Hazards** -
HMIS	**Health Hazards** 3	**Flammability** 0	**Physical Hazard** 0	**Personal Protection** X

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501
Revision Date 18-Aug-2014
Revision Note No information available

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

End of Safety Data Sheet