U. S. Corrosion Technologies, LLC
P. O. Box 551625
Dallas, Texas 75355-1625
(972) 271-7361 Fax: (972) 278-9721

ALuma Brite™ Safety Data Sheet

1. IDENTIFICATION

Product Name: ALuma Brite™
Product Numbers: 25201, 25202, 25205, 25206
Product Type and Use: Acid Cleaner
Manufacturer: U.S. Corrosion Technologies, LLC
2638 National Drive, Garland, TX 75041
Contact: Telephone: 972-271-7361 Fax: 972-278-9721
Emergency Telephone: CHEMTREC® USA (800) 424-9300
Outside US +1 (703) 527-3887

2. HAZARDS IDENTIFICATION

Hazard Classification

Health Hazard(s)

Skin Irritation	Category 1B
Eye Irritation	Category 1
Acute Toxicity - Inhalation	Category 4
Acute Toxicity - Oral	Category 3

Physical Hazard(s)

Corrosive to metals	Category 1

Hazard(s) not otherwise classified
None

Labeling

Signal Word: **DANGER**
Pictograms: Corrosion, Skull and Crossbones

Statements of Hazard

Hazard Statements
Causes severe skin burns and eye damage
Harmful if inhaled
Toxic if swallowed
May be corrosive to metals

Precautionary Statements
Wear protective gloves, eye and face protection. Do not breathe vapors or mist. Use only outdoors or in a well-ventilated area. Take off contaminated clothing and wash it before reuse. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Store locked up. Keep only in original container. Absorb spillage to prevent material damage. Store in corrosive resistant container with resistant inner liner. Dispose of contents and container in accordance with applicable regulations.
If on skin: Rinse skin with water or shower. Immediately call a poison center or doctor.
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.
If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor.
If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Percent by Wt.
Phosphoric acid	7664-38-2	20-25*
Ammonium dihydrogenfluoride	1341-49-7	1-5*
Nonylphenol polyethylene glycol ether	127087-87-0	1-5*
2-butoxyethanol	111-76-2	5-10*

* Exact percentage of composition has been withheld as a trade secret

4. FIRST AID MEASURES

General Advice: Causes severe skin burns and eye damage. May be absorbed through the skin; avoid contact. Do not swallow. Avoid breathing vapors or mist. Use with adequate ventilation. Keep container closed.
Inhalation: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor.
Skin Contact: Remove contaminated clothing. Flush skin with plenty of water. Remove contaminated clothing and wash before reuse. Immediately call a poison center or doctor.
Eye Contact: Immediately flush cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.
Ingestion: Do not give anything by mouth to an unconscious person. Do not induce vomiting unless advised to do so by a doctor or poison control center. Rinse mouth. Immediately call a poison center or doctor.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Product does not support combustion. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Suitable: Carbon Dioxide, Dry Chemical, and Foam
Unsuitable: Alcohol, Alcohol based solutions
Fire Fighting Procedures: As in any fire, wear self-contained breathing apparatus, pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool fire-exposed containers with water spray.
Unusual Fire and Explosion Hazards: Flammable hydrogen gas may be produced on contact with aluminum, tin, lead and zinc.
Hazardous Combustion/ Decomposition Products: Oxides of carbon, phosphorous, and nitrogen; phosphine

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions / Protective Equipment / Emergency Procedures: Use caution as spills may be slippery. Ensure adequate ventilation. Use personal protective equipment.
Methods and materials for containment and cleaning up: Dike and contain large spills with inert absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer liquid to plastic containers. Flush surfaces with plenty of water to sanitary sewer system (If permitted by local sewer regulations). Do not store or dispense into metal containers. Use clean non-sparking tools to collect absorbed material and transfer to a properly labeled container for recovery or disposal according to local / national regulations.

7. HANDLING AND STORAGE

HANDLING
Precautions for Safe Handling: Avoid skin and eye contact. Avoid breathing mist or vapors. The headspace of unopened containers and empty containers may contain trace amounts of ethylene oxide. Use with adequate ventilation. Follow all SDS/label precautions.
STORAGE
Conditions to avoid: Store in a cool, dry, well-ventilated place in the original container. Do not transfer or store in metal containers. Keep container tightly closed when not in use. Avoid excess heating and high temperatures. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

	ACGIH		OSHA			
Component	**TLV ppm**	**TLV mg/m3**	**PEL ppm**	**PEL mg/m3**	**STEL ppm**	**STEL mg/m3**
Phosphoric acid	Not Est.	1	Not Est.	1	Not Est.	3
Ammonium dihydrogenfluoride	Not Est.	2.5	Not Est.	2.5	Not Est.	Not Est.
Nonylphenol polyethylene glycol ether	Not Est.	Not Est.	Not Est.	Not Est.	Not Est.	Not Est.
2-butoxyethanol	20 (Skin)	Not Est.	50	240	Not Est.	Not Est.

Engineering Controls: Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.
Personal Protection
Respiratory Protection: None required under normal use conditions. In case of insufficient ventilation, wear a suitable NIOSH approved air purifying respirator with acid vapor cartridge.
Hand / Skin Protection: Wear impermeable gloves such as neoprene or nitrile rubber gloves. Gauntlets and apron may be worn depending on the extent of exposure.
Eye / Face Protection: Face shield with safety glasses with side-shields.
General Hygiene Measures: Avoid contact. Always wash hands and face before eating, drinking or smoking. Remove and wash contaminated clothing before re-use. An eyewash station and washing facilities should be readily accessible to the area of use. See 29 CFR 1910.132-138 for further guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Transparent	**Autoignition Temperature:**	Not applicable
Physical State:	Non-viscous liquid	**Percent Volatile by volume:**	>78
Odor:	Pungent	**Vapor Density (Air=1):**	1
Color:	Colorless	**Evaporation Rate (BuAc= 1):**	<1
Viscosity, cSt @ 40°C:	Not established	**Vapor Pressure, mmHg @23°C:**	18
cSt @ 100°C:	Not established	**Solubility in water:**	Complete
pH:	<1	**Octanol/Water Partition:**	Not established
Boiling Point/ Range:	>200°F / 93°C	**VOC Content (%):**	4
Melting Point:	>32°F / 0°C	**Specific Gravity @15.6°C:**	1.08
Flash Point:	Non-flammable	**Pour Point:**	Not established
Method:	Not applicable	**Non-volatile by Volume (%):**	<22
Lower Explosive Limit, vol %:	Hydrogen, 4	**Dielectric Strength:**	Not applicable
Upper Explosive Limit, vol %:	Hydrogen, 75		

10. STABILITY AND REACTIVITY

Stability: Stable at ambient temperatures
Conditions to Avoid: Heat and direct sunlight.
Hazardous Polymerization: Will not occur.
Materials to Avoid: Polished and anodized aluminum and other reactive metals, glass, rubber, leather, oxidizing agents, alkali/ bases, chlorate, nitrates, sulfides and sulfites

11. TOXICOLOGICAL INFORMATION

Product Information: Not established
Ingredient Information
Phosphoric acid: Orl-Rat LD501530 mg/kg, Skn-Rbt LD50 2740 mg/kg, Ihl-Rat LC50 850 mg/kg 1 h (dust)
Ammonium dihydrogenflouride: Orl-Rat LD50: 130 mg/kg (approximate)
Nonylphenol polyethylene glycol ether: Orl-Rat LD50 960 - 3,980 mg/kg, Skn-Rbt LD50 2,000 - 2,991 mg/kg, Ihl-Rat LC50 1.15 mg/L 4 h
2-butoxyethanol: Orl-Rat LD50 470 mg/kg, Skn-Rbt LD50 220 mg/kg, Ihl-Rat LC50 450 ppm 4 h
Acute Effects
Signs and Symptoms of Overexposure: Skin burns and serious eye damage, Coughing, Sneezing
Inhalation: Vapors and mist may cause severe respiratory burns with nasal discomfort and discharge, coughing and sneezing, difficult breathing and shortness of breath.

Skin Contact: Causes redness, blistering, pain and burns which may not be immediately visible or painful.
Eye Contact: Causes tearing, redness, pain, swelling of the conjunctiva and burns. May cause blindness.
Ingestion: Causes burns to the esophagus and stomach with pain, nausea, vomiting and diarrhea. May be fatal.
Primary Route(s) of Exposure: Eyes, Skin, Inhalation
Primary Route(s) of Entry: Inhalation, Ingestion
Target Organs: Liver, kidneys, lymphatic system, skin, blood, eyes, CNS, respiratory system, bones, teeth
Chronic Effects: 2-Butoxyethanol: Target Organ Effects: liver, kidneys, lymphatic system, skin, blood, eyes, CNS, respiratory system
Carcinogenicity: 2-Butoxyethanol: ACGIH A3, IARC Group 3; Not classifiable as to its carcinogenicity to humans
Medical Conditions Aggravated by Exposure: May aggravate existing skin, eye and respiratory conditions including asthma and dermatitis.

12. ECOLOGICAL INFORMATION

Product Data: Not established
Ingredient Data
Phosphoric acid: Toxicity to Fish LC50 = Mosquito Fish 138 mg/L 96 h
Nonylphenol polyethylene glycol ether: Toxicity to Fish LC50, Pimephales promelas (fathead minnow) 3.8 - 6.2 mg/l, 96 h, Water Flea EC50, Daphnia magna 9.3 - 21.4 mg/l 48 h, Micro-organisms: IC50; Bacteria, > 1,000 mg/l 16 h
2-butoxyethanol: Toxicity to Fish LC50 = 1490 mg/L Lepomis macrochirus 96 h, Water Flea EC50 1698 - 1940 mg/L 24 h Daphnia magna, 1000 mg/L 48 h Daphnia magna
Elimination Information
Ethylene glycol butyl ether: log Pow 0.81
Nonylphenol polyethylene glycol ether: log Pow 2.1 - 3.4 Est., Bioconcentration Factor (BCF): 5.9 - 48; Fish; Estimated.

13. DISPOSAL CONSIDERATIONS

Product: Dispose of in accordance with applicable regulations.
Container: Empty remaining contents. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

Road Transport
Proper Shipping Name: Ammonium hydrogendifluoride solution, 8 (6.1), PG II
UN-No.: UN2817
Class: 8
Packing Group: PG II

Ocean
Proper Shipping Name: Ammonium hydrogendifluoride solution, 8 (6.1), PG II
UN-No.: UN2817
Class: 8
Packing Group: PG II

Air
Proper Shipping Name: Ammonium hydrogendifluoride solution, 8 (6.1), PG II
UN-No.: UN2817
Class: 8
Packing Group: PG II

15. REGULATORY INFORMATION

U.S. Federal Regulations
Toxic Substances Control Act (TSCA): All components are included on the Inventory
Superfund Amendments and Reauthorization Act (SARA) Title III:

Immediate Hazard	Delayed Hazard	Fire Hazard	Pressure Hazard	Reactivity Hazard
X	X	-	-	-

16. OTHER INFORMATION

Prepared by: U.S. Corrosion Technologies, LLC Technical Services Department
Revision Date: 6/16/2016 **Supersedes Date:** 2/24/2015
Revision Indicator: v2.0 Update Sec. 14 - transportation information

National Fire Protection Association (704)
Health: 3 Flammability: 1 Reactivity: 0 Other: -

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