

SAFETY DATA SHEET


AL CLEAN - Aluminum Cleaner & Brightener (Ready to Use)



Section 1. Identification

GHS product identifier : AL CLEAN
Product code : 00136470, 11687330, 00136150, 00136105
SDS # : DUB00453
Other means of identification : Not available.
Product type : Liquid.
Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Acid Cleaner
Supplier/Manufacturer : Prime Solutions LLC
3825 Columbus Rd. BLDG E
Granville OH 43023
Phone: (614) 400-5484
Emergency telephone number : Chemtrec
1-800-424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : CORROSIVE TO METALS. - Category 1
SKIN CORROSION/IRRITATION - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
GHS label elements
Hazard pictograms : The GHS hazard pictogram for Corrosive to Metals, showing a hand being corroded by a liquid dripping from a test tube, enclosed in a red diamond border.
Signal word : Danger
Hazard statements : May be corrosive to metals.
Causes severe skin burns and eye damage.
Precautionary statements
Prevention : Wear eye/face protection. Wear protective gloves. Wear protective clothing. Avoid breathing dust or mist. Keep only in original container. Wash hands thoroughly after handling.
Response : Absorb spillage to prevent material damage. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. 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 physician.
Storage : Store locked up. Store in corrosive resistant container with a resistant inner liner.
Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
sulphuric acid	2 - 5	7664-93-9
Phosphoric acid	2 - 4	7664-38-2
Alcohols, C9-11, ethoxylated	0.1 - 1	68439-46-3
Hydrofluoric acid	0.1 - 1	7664-39-3
ammonium bifluoride	0.1 - 1	1341-49-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach. Ingestion of large amounts may cause fluoride toxicity.

Over-exposure signs/symptoms

Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains Ingestion of large amounts may cause poisoning. Symptoms include: methemoglobinemia, cyanosis (blue skin), marked fall in blood pressure, leading to collapse, coma and possibly death.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
sulfur oxides
phosphorus oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	CAS #	ACGIH	OSHA	Mexico
sulphuric acid	7664-93-9	TWA: 0.2 mg/m ³ 8 hours. Form: Thoracic fraction	TWA: 1 mg/m ³ 8 hours.	
Phosphoric acid	7664-38-2	TWA: 1 mg/m ³ 8 hours. STEL: 3 mg/m ³ 15 minutes.	TWA: 1 mg/m ³ 8 hours.	LMPE-PPT: 1 mg/m ³ 8 hours. LMPE-CT: 3 mg/m ³ 15 minutes.
Hydrofluoric acid	7664-39-3	TWA: 0.5 ppm, (as F) 8 hours. C: 2 ppm, (as F)	TWA: 3 ppm 8 hours. TWA: 2.5 mg/m ³ , (as F) 8 hours.	LMPE-Pico: 2.5 mg/m ³ LMPE-Pico: 3 ppm
ammonium bifluoride	1341-49-7	TWA: 2.5 mg/m ³ , (as F) 8 hours.	TWA: 2.5 mg/m ³ 8 hours. Form: Dust TWA: 2.5 mg/m ³ , (as F) 8 hours.	

- Engineering measures** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

Personal protection

- Respiratory** : If a risk assessment indicates this is necessary, use a properly fitted, air-purifying or airfed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: nitrile rubber
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: splash goggles
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Personal protective equipment (Pictograms)



Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Yellow.
- Odor** : acidic smell
- Odor threshold** : Not available.
- pH** : 0.5
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: Not applicable.
- Burning time** : Not applicable.
- Burning rate** : Not applicable.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.38
- Solubility** : Easily soluble in the following materials: cold water and hot water.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.

Section 9. Physical and chemical properties

Elemental Phosphorus : 4.7 %
VOC content : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.
Chemical stability : The product is stable.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid : No specific data.
Incompatible materials : Extremely reactive or incompatible with the following materials: oxidizing materials and alkalis.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Storage : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 11. Toxicological information

Information on toxicological effects

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
sulphuric acid	A2	1	-	-	Known to be a human carcinogen.	-
ammonium bifluoride	A4	3	-	-	-	-

Information on the likely routes of exposure : Strong inorganic sulfuric acid mists are classified as known human carcinogens by IARC and NTP.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
Skin contact : Causes severe burns.
Ingestion : May cause burns to mouth, throat and stomach. Ingestion of large amounts may cause fluoride toxicity.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain
 watering
 redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur

Section 11. Toxicological information

Ingestion : Adverse symptoms may include the following:
stomach pains Ingestion of large amounts may cause poisoning. Symptoms include: methemoglobinemia, cyanosis (blue skin), marked fall in blood pressure, leading to collapse, coma and possibly death.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	3481.3 mg/kg

Section 12. Ecological information

Ecotoxicity : Not available.

Aquatic ecotoxicity

Not available.

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA classification : D002 [corrosive]

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

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT (Department of Transportation)	: This product is not considered Hazardous by DOT in quantities less than 1.3 Gallon per ECFR section 173.154.
UN No. (IMDG)	: UN3264
Class	: 85
Proper Shipping Name	: Corrosive Liquid, Acidic, Inorganic, N.O.S., (Sulfuric Acid, Phosphoric Acid)
Hazard Class	: 8
IMDG Packing group	: PGIII
Labels Required	: Not applicable
Special precautions for user related to transport or transportation measures	: Not applicable

Section 15. Regulatory information

U.S. Federal regulations	: TSCA 12(b) one-time export: No products were found. TSCA 12(b) annual export notification: No products were found. United States inventory (TSCA 8b): All components are listed or exempted. Clean Water Act (CWA) 311: sulphuric acid; Phosphoric acid CERCLA: Hazardous substances.: sulphuric acid: 1000 lbs. (454 kg); Phosphoric acid: 5000 lbs. (2270 kg);
EPA Registration Number	: Not available.
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: Not listed
DEA List II Chemicals (Essential Chemicals)	: Listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
sulphuric acid	30 - 40	Yes.	1000	66.3	1000	66.3
hydrofluoric acid	0.1 - 1	Yes.	100	10.4	100	10.4

SARA 304 RQ : 3058.1 lbs / 1388.4 kg [265.8 gal / 1006.1 L]

SARA 311/312

Classification : Reactive
Immediate (acute) health hazard

SARA 313

	Product name	CAS number	%
Supplier notification	sulphuric acid	7664-93-9	30 - 40

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Section 15. Regulatory information

State regulations

- Massachusetts** : The following components are listed: SULFURIC ACID; PHOSPHORIC ACID
- New York** : The following components are listed: Sulfuric acid; Phosphoric acid
- New Jersey** : The following components are listed: SULFURIC ACID; DIHYDROGEN SULFATE; PHOSPHORIC ACID
- Pennsylvania** : The following components are listed: SULFURIC ACID; PHOSPHORIC ACID
- California Prop. 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
sulphuric acid	Yes.	No.	No.	No.

Canada

Canadian lists

- Canadian NPRI** : The following components are listed: Sulphuric acid; Phosphorus (total)
- Canada inventory** : All components are listed or exempted.
- Canadian PCP/DIN Number** : Not available.

International regulations

- International lists** :
- Australia inventory (AICS):** All components are listed or exempted.
 - China inventory (IECSC):** Not determined.
 - Japan inventory:** Not determined.
 - Korea inventory:** Not determined.
 - Malaysia Inventory (EHS Register):** Not determined.
 - New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
 - Philippines inventory (PICCS):** Not determined.
 - Taiwan inventory (CSNN):** Not determined.

Section 16. Other information

History

- Date of printing** : 3/30/2015.
- Date of issue/Date of revision** : 3/30/2015.
- Date of previous issue** : No previous validation.
- Version** : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.