



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Aluminex™ Pontoon &amp; Aluminum Hull Cleaner</b>	
<b>Other means of identification</b>		
<b>Product code</b>	MK31128	
<b>Recommended use</b>	Cleaner for aluminum hulls	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufactured or sold by:</b>		
<b>Company name</b>	CRC Industries, Inc.	
<b>Address</b>	885 Louis Dr. Warminster, PA 18974 US	
<b>Telephone</b>		
<b>General Information</b>	215-674-4300	
<b>Technical Assistance</b>	800-521-3168	
<b>Customer Service</b>	800-272-4620	
<b>24-Hour Emergency (CHEMTREC)</b>	800-424-9300 (US) 703-527-3887 (International)	
<b>Website</b>	www.crcindustries.com	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Corrosive to metals	Category 1
<b>Health hazards</b>	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
<b>Environmental hazards</b>	Not classified.	
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger	
<b>Hazard statement</b>	May be corrosive to metals. Causes severe skin burns and eye damage.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Keep only in original container. Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.	
<b>Response</b>	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.	
<b>Storage</b>	Store locked up. Store in corrosive resistant container with a resistant inner liner.	
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national regulations.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.	

## Supplemental information

When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Water		7732-18-5	90 - 100
Ammonium bifluoride		1341-49-7	1 - 5
Hydrochloric Acid		7647-01-0	1 - 5
Phosphoric Acid		7664-38-2	1 - 5

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. If respiratory irritation, dizziness, or unconsciousness occurs, seek immediate medical assistance.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Probable mucosal damage may contraindicate the use of gastric lavage.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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**Methods and materials for containment and cleaning up**

This product is miscible in water. Should not be released into the environment.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage****Precautions for safe handling**

Provide adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage. For product usage instructions, please see the product label.

**Conditions for safe storage, including any incompatibilities**

Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection****Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Ammonium bifluoride (CAS 1341-49-7)	PEL	2.5 mg/m3
Hydrochloric Acid (CAS 7647-01-0)	Ceiling	7 mg/m3
Phosphoric Acid (CAS 7664-38-2)	PEL	5 ppm
		1 mg/m3

**US. OSHA Table Z-2 (29 CFR 1910.1000)**

Components	Type	Value	Form
Ammonium bifluoride (CAS 1341-49-7)	TWA	2.5 mg/m3	Dust.

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Ammonium bifluoride (CAS 1341-49-7)	TWA	2.5 mg/m3
Hydrochloric Acid (CAS 7647-01-0)	Ceiling	2 ppm
Phosphoric Acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Ammonium bifluoride (CAS 1341-49-7)	TWA	2.5 mg/m3
Hydrochloric Acid (CAS 7647-01-0)	Ceiling	7 mg/m3
Phosphoric Acid (CAS 7664-38-2)	STEL	5 ppm
	TWA	3 mg/m3
	TWA	1 mg/m3

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Ammonium bifluoride (CAS 1341-49-7)	3 mg/l	Fluoride	Urine	*
	2 mg/l	Fluoride	Urine	*

\* - For sampling details, please see the source document.

<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower should be available when handling this product.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles) and a face shield.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves such as: Latex. Neoprene.
<b>Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an acid gas cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Colorless.
<b>Odor</b>	Acid.
<b>Odor threshold</b>	Not available.
<b>pH</b>	< 1
<b>Melting point/freezing point</b>	-173.6 °F (-114.2 °C) estimated
<b>Initial boiling point and boiling range</b>	212 °F (100 °C)
<b>Flash point</b>	None (Tag Closed Cup)
<b>Evaporation rate</b>	Similar to water.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	20.9 hPa estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.05
<b>Solubility (water)</b>	Soluble.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity (kinematic)</b>	Not available.
<b>Percent volatile</b>	91 % estimated

## 10. Stability and reactivity

<b>Reactivity</b>	Reacts violently with strong alkaline substances. This product may react with reducing agents. May be corrosive to metals.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.

<b>Conditions to avoid</b>	Temperatures above 50 °C or below 10 °C. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as Hydrogen chloride and Phosgene. Do not mix with other chemicals. Contact with incompatible materials.
<b>Incompatible materials</b>	Bases. Strong oxidizing agents. Reducing agents. Metals. Bleach.
<b>Hazardous decomposition products</b>	Hydrogen chloride. Phosgene.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

### Information on toxicological effects

#### Acute toxicity

Product	Species	Test Results
Aluminex™ Pontoon & Aluminum Hull Cleaner		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 20 mg/l
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Ammonium bifluoride (CAS 1341-49-7)	3 Not classifiable as to carcinogenicity to humans.
Hydrochloric Acid (CAS 7647-01-0)	3 Not classifiable as to carcinogenicity to humans.

#### US. National Toxicology Program (NTP) Report on Carcinogens

Not available.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Product	Species	Test Results
Aluminex™ Pontoon & Aluminum Hull Cleaner		
<b>Aquatic</b>		
Fish	LC50	Fish 9400 mg/l, 96 hours estimated
Components	Species	Test Results
Hydrochloric Acid (CAS 7647-01-0)		
<b>Aquatic</b>		
Fish	LC50	Western mosquitofish (Gambusia affinis) 282 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

<b>Disposal of waste from residues / unused products</b>	This material and its container must be disposed of as hazardous waste. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

<b>DOT</b>	
<b>UN number</b>	UN2922
<b>UN proper shipping name</b>	Corrosive liquids, toxic, n.o.s. (Hydrochloric Acid RQ = 166667 LBS, Phosphoric Acid RQ = 166668 LBS, Ammonium bifluoride RQ = 3333 LBS)
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	6.1
<b>Label(s)</b>	8, 6.1
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	B3, IB2, T7, TP2
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	243
<b>IMDG</b>	
<b>UN number</b>	UN2922
<b>UN proper shipping name</b>	CORROSIVE LIQUID, TOXIC, N.O.S. (Hydrochloric Acid, Phosphoric Acid, Ammonium bifluoride)
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	6.1
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-A, S-B
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>IATA</b>	
Not permitted for shipment by air.	

### 15. Regulatory information

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**SARA 304 Emergency release notification**

Hydrochloric Acid (CAS 7647-01-0) 5000 LBS

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

Ammonium bifluoride (CAS 1341-49-7)

Hydrochloric Acid (CAS 7647-01-0)

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Ammonium bifluoride (CAS 1341-49-7) Listed.

Hydrochloric Acid (CAS 7647-01-0) Listed.

Phosphoric Acid (CAS 7664-38-2) Listed.

**CERCLA Hazardous Substances: Reportable quantity**

Ammonium bifluoride (CAS 1341-49-7) 100 LBS

Hydrochloric Acid (CAS 7647-01-0) 5000 LBS

Phosphoric Acid (CAS 7664-38-2) 5000 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Hydrochloric Acid (CAS 7647-01-0)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Hydrochloric Acid (CAS 7647-01-0)

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Hydrochloric Acid (CAS 7647-01-0) 6545

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Hydrochloric Acid (CAS 7647-01-0) 20 %WV

**DEA Exempt Chemical Mixtures Code Number**

Hydrochloric Acid (CAS 7647-01-0) 6545

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Phosphoric Acid (CAS 7664-38-2) High priority

**Food and Drug Administration (FDA)** Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Section 311/312** Immediate Hazard - Yes

**Hazard categories** Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**US state regulations**

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Hydrochloric Acid (CAS 7647-01-0)

Phosphoric Acid (CAS 7664-38-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Ammonium bifluoride (CAS 1341-49-7)

Phosphoric Acid (CAS 7664-38-2)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. Massachusetts RTK - Substance List**

Ammonium bifluoride (CAS 1341-49-7)

Hydrochloric Acid (CAS 7647-01-0)

Phosphoric Acid (CAS 7664-38-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Hydrochloric Acid (CAS 7647-01-0)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Hydrochloric Acid (CAS 7647-01-0)

Phosphoric Acid (CAS 7664-38-2)

**US. Rhode Island RTK**

Ammonium bifluoride (CAS 1341-49-7)

Hydrochloric Acid (CAS 7647-01-0)

Phosphoric Acid (CAS 7664-38-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Ammonium bifluoride (CAS 1341-49-7)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**Volatile organic compounds (VOC) regulations****EPA****VOC content (40 CFR 51.100(s))** < 0.5 %**Consumer products (40 CFR 59, Subpt. C)** Not regulated**State****Consumer products** Not regulated**VOC content (CA)** < 0.5 %**VOC content (OTC)** < 0.5 %**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	06-11-2015
<b>Revision date</b>	09-15-2015
<b>Prepared by</b>	Allison Cho
<b>Version #</b>	02
<b>Further information</b>	Not available.
<b>HMIS® ratings</b>	Health: 3 Flammability: 0 Physical hazard: 0 Personal protection: D
<b>NFPA ratings</b>	Health: 3 Flammability: 0 Instability: 0



**NFPA ratings****Disclaimer**

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