

Material Safety Data Sheet

Section 1 Product Identification

Product Name: **Alumashine Acid Wash**
 Formula type: Acidic liquid detergent

Manufacturer's Name:

Chem-Tech, Inc.
 6551 Jansen Avenue NE – Suite 106
 Albertville, MN 55301

Emergency Telephone: 1-800-535-5053
 Information: 1-763-417-1380
 Fax: 763-417-1389

Section 2 Hazardous Ingredients

<u>Chemical Name</u>	<u>CAS#</u>	<u>%</u>	<u>Threshold Limit Value</u>	<u>Permissible Exposure Limit</u>
Water	7732-18-5	50-60		
Hydrofluoric Acid	7664-39-3	<15	3 ppm	3 ppm
Sulfuric Acid	7664-93-9	<20	1 mg/m ³ (TWA)	1 mg/m ³
Nonylphenol ethoxylate	9016-45-9	<5	NE	NE
Glycol Ether EB	111-76-2	<2	25 ppm skin	25 ppm skin

Balance of ingredients are not hazardous as defined by OSHA

Section 3 Physical Data

Form:	Liquid	pH as is:	0.5 – 1.5
Color:	Clear	pH (1% vol):	1.5 – 2.5
Odor:	Slight – solvent/acid	Solubility in Water:	Complete
Specific Gravity (Water = 1):	1.12 – 1.14	Vapor Density (Air = 1):	>1.0
Boiling Point °F:	>212	% VOC:	<2
Evaporation Rate (Water = 1):	NDA	Vapor pressure:	25 mm Hg @ 68° F

Section 4 Fire and Explosion Information

Flash Point (Method) F: Will not burn

Unusual Fire and Explosion Hazards: Treat as an acidic material. See section IV. Not considered to be a fire hazard. Heat from a fire may produce poisonous or irritating gases. Contact with metal can produce flammable hydrogen gas. Violent exothermic reaction can occur with water.

Extinguishing Agents: Keep upwind of fire. Use media proper for the main source of the fire. Water on this product can cause heat and spattering or violent reaction. Foam, carbon dioxide, dry chemical.

Fire fighting methods: Evacuate area and fight fire from a safe distance. If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water spray to cool adjacent structures and to protect personnel. Shut off source of flow if possible. Stay away from storage tank ends. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of storage tank due to fire. Fire fighters must wear MSHA/NIOSH approved positive pressure breathing apparatus with full-face mask and full protective equipment.

Section 5 Health Hazard Data - Signs and Symptoms of Overexposure:

Probable Routes of Entry: Eyes, skin or inhalation

- Warning:** Danger: Poison. Corrosive. Causes severe burns which may not be immediately painful or visible. May be fatal if swallowed or inhaled. Liquid and vapor can burn skin, eyes, and respiratory tract. Causes bone damage.
- Eyes:** Corrosive to eyes. Causes chemical burns. Permanent eye damage or blindness can result.
- Skin:** Corrosive to skin. Causes chemical burns if not properly treated immediately. Effects may be delayed. Fluoride penetrates the skin causing destruction of deep tissue or bone. Can be fatal.
- Inhalation:** Mist or vapors cause severe irritation or burns including coughing, sore throat or difficult breathing. Effects may be delayed. Can cause fluorine poisoning. Later effects include central nervous system effects, cardiovascular effects and death.
- Ingestion:** Poison. Can cause corrosive damage to mouth, throat, or stomach. Harmful or fatal. Causes fluorine poisoning. Later effects include central nervous system effects, cardiovascular effects and death.
- Chronic Exposure:** Can result in fluorosis, bone and joint damage, hypocalcemia and hypomagnesemia
- Medical Conditions Aggravated by Exposure:** Asthma and pre-existing skin disorders or abrasions.

Section 6 Emergency First Aid Procedures

- Alert:** Alert medical personnel that this is an emergency – can cause fluorine poisoning.
- Eyes:** Immediately flush eyes with cool running water for at least 30 minutes. Obtain immediate medical or hospital attention – preferably an eye specialist. Alert medical personnel that this is an emergency. If a physician is not immediately available apply one or two drops of 0.5% pontocaine hydrochloride solution. Do not use oily drops or ointment. Place ice pack on eyes until reaching emergency room.
- Skin:** Immediately flush skin with cool water for 20 minutes. Remove contaminated clothing while flushing with water. Obtain immediate medical aid. Treat for fluoride exposure. Alert medical personnel that this is an emergency. If available, limit washing to five minutes and apply a 2.5% calcium gluconate gel to affected area and seek immediate medical attention.
- Inhalation:** Remove to fresh air. Monitor breathing. Administer CPR if needed. Obtain immediate medical aid. Treat for fluorine exposure. Alert medical personnel that this is an emergency.
- Ingestion:** If conscious, drink two glasses of water. Do not induce vomiting. Seek immediate medical aid. Treat for fluorine exposure. If unconscious, do not give anything to drink, do not induce vomiting, and obtain immediate medical aid. Treat for fluorine exposure. Alert medical personnel that this is an emergency. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Gastric lavage should be performed only by qualified medical personnel. Keep affected person warm and at rest. Seek immediate medical attention or call 911.

Section 7 Reactivity Data

- Stability:** Stable at room temperature (68F) when stored and used under proper conditions.
- Incompatibility:** Reacts with metals, alkaline products, oxidizers, nitrates, and chlorinated products (such as sanitizers). Do not mix with anything except water.
- Hazardous Decomposition Products:** Products: Upon contact with metal, may release hydrogen gas. Upon contact with alkaline products, may emit explosive heat. Upon contact with chlorinated products, chlorine vapors can be released. Sulfur dioxide or fluoride fumes at extremely high temperature.
- Hazardous Polymerization:** Will not occur.

Section 8 Spill & Leak Procedures

Procedures for Cleanup: Wear safety equipment. Evacuate personnel. Product is hazardous.

Small Spills: Flush and dilute with plenty of water. Adjust pH if necessary.

Large Spills: Dike product with sand or dirt. Keep out of surface waters and storm sewers. Call emergency response personnel or hazardous clean up company. Place into suitable plastic containers for disposal. After clean up, neutralize spill site with caustic soda solution. Reportable quantity is 85 gallons. Waste is RCRA hazardous.

Waste Disposal: Dispose of in accordance with federal, state & local regulations. Waste is classed a RCRA corrosive. Reportable quantity is 85 gallons. Dispose with authorized disposal company.

Section 9 Special Protection Information

Ventilation Type Required: General and local

Protective Gloves: Rubber, neoprene or nitrile.

Respiratory Protection: Wear respirator with an HF acid gas cartridge.

Eye Protection: Wear goggles and face shield.

Other Equipment: Rubber boots and impervious full suit protective clothing to prevent skin contact. Eyewash stations and showers should be available in areas where this material is used and stored.

Section 10 Special Precautions

Personnel must wear full protective gear when handling product. Store between 30⁰F and 100⁰F. Store out of direct sunlight. Keep out of reach of children. Keep container closed when not in use. For industrial and institutional use only. Mix only with water. Thoroughly rinse empty containers before disposal. Use only in well ventilated area. Do not breathe vapors. Wash hands thoroughly after handling.

Section 11 Toxicity Data**Toxicity:**

<u>Ingredient</u>	<u>LD50 – Oral</u> <u>Rat</u>	<u>LD50 – skin</u> <u>absorption</u> <u>Rabbit</u>	<u>LC50 – Inhalation</u> <u>Rabbit</u>	<u>Effects</u>
Hydrofluoric Acid	ND	ND	ND	Corrosive – see note below
Sulfuric Acid	2140 mg/kg		30 mg/m ³ (guinea pig)	Eye – corrosive Skin – corrosive
Nonylphenol ethoxylate	ND	ND	ND	ND
Glycol Ether EB	470 mg/kg (rat)	220 mg/kg (rabbit)	450 ppm/4 hr (rat)	ND

Note: This product is absorbed through the skin. Personal contact can cause fluorine poisoning and death.

Carcinogenicity:

<u>Ingredient</u>	<u>NTP</u>	<u>IARC</u>	<u>OSHA</u>
Hydrofluoric Acid	No	No	No
Sulfuric Acid	Yes	No	No
Nonylphenol ethoxylate	No	No	No
Glycol Ether EB	No	No	No

Other effects:

Ingredient	Reproductive Toxicity	Teratogenicity	Mutagenicity
Hydrofluoric Acid	ND	ND	ND
Sulfuric Acid	ND	ND	ND
Nonylphenol ethoxylate	ND	ND	ND
Glycol Ether EB	See note below	Laboratory animals effected	ND

Note: Glycol ether EB – inhalation exposure to pregnant rabbits caused some toxicity to mother and fetus at 200 ppm, but no effects at 100 ppm. Rat studies indicate the rat kidneys may be the target organs for over exposure, but rat liver changes may also be evident. There is no evidence that this occurs in humans.

Section 12 Ecological Information**Ingredient**

Hydrofluoric Acid	No data
Sulfuric Acid	Slightly to moderately toxic. 96 hour LC50 – bluegill sunfish: 10.5 ppm 48 hour TLM – flounder: 100-300 ppm
Nonylphenol ethoxylate	Biodegradable
Glycol Ether EB	Moderately biodegradable / BCF <100 / when released into air, half life expected to be less than 1 day / LC50/96 hr values for fish are >100 mg/l / not expected to be toxic to aquatic life.

Section 13 Hazard Rating - HMIS

0 = minimal 1 = slight 2 = moderate 3 = serious 4 = severe

Health: 3 Reactivity: 1 Fire: 0 Personal protection equipment: Depending upon use conditions – Full suit impervious protective gear, goggles, face shield, gloves, and respirator.

Section 14 Regulatory Information**• Chemical Inventory Status - part 1 •**

Ingredient	TSCA	EC	Japan	Australia
Hydrofluoric Acid	Yes	Yes	Yes	Yes
Sulfuric Acid	Yes	Yes	Yes	Yes
Nonylphenol ethoxylate	Yes	Yes	Yes	Yes
Glycol Ether EB	Yes	Yes	Yes	Yes

• Chemical Inventory Status – part 2 •

Ingredient	Korea	-----Canada-----		Philippines
		DSL	NDSL	
Hydrofluoric Acid	Yes	Yes	No	Yes
Sulfuric Acid	Yes	Yes	No	Yes
Nonylphenol ethoxylate	Yes	Yes	No	Yes
Glycol Ether EB	Yes	Yes	No	Yes

• Federal, State & International Regulations – part 1 •

Ingredient	---- SARA 302 ----		----- SARA 313 -----	
	RQ	TPQ	List	Chemical Catg.
Hydrofluoric Acid	100	100	Yes	No
Sulfuric Acid	1000	1000	No	No
Nonylphenol ethoxylate	No	No	No	No
Glycol Ether EB	No	No	Yes	Glycol ethers

• **Federal, State & International Regulations – part 2** •

Ingredient	CERCLA	RCRA 261.33	TSCA 8(d)
Hydrofluoric Acid	100	U134	No
Sulfuric Acid	1000	No	No
Nonylphenol ethoxylate	No	No	No
Glycol Ether EB	No	No	Yes

Chemical Weapons Convention: No **TSCA 12(b):** No **CDTA:** No

SARA 311/312: **Acute:** Yes **Chronic:** Yes **Fire:** No **Pressure:** No



Reactivity: Yes

Section 15 Shipping Name:

Corrosive liquid, toxic, n.o.s. (hydrofluoric acid and sulfuric acid), 8, 6.1, UN2922, PGII

Section 16 WHMIS

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Class	Description	Symbol
E	Corrosive material	
D1A	Very toxic material	
D2A	Very toxic chronic toxic effect : fluorosis	

Section 17 Documentary Information

Date issued: 11-17-06 Supercedes: 4-22-05 Reason for update: Total update
Prepared by: S. VanGrasstek Title: Chem-Tech Lab Manager Phone: 763-417-1380

ABBREVIATIONS:

NE = NOT ESTABLISHED

NDA = NO DATA AVAILABLE

> = GREATER THAN

<= LESS THAN

BCF = BIOCONCENTRATION FACTOR

ND = NO DATA

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