



Issue Date 11/9/2004

Revision Date 12/11/2013

Version 1

1. IDENTIFICATION

Product Name SmartWash®Aluma Bright	Supplier Name and Address Whiting Systems, Inc. 9000 Highway 5 North Alexander, AR 72002 800-542-9031	Emergency Telephone INFOTRAC 352-323-3500 (International) 800-535-5053 (North America)
Recommended Use Cleaning agent.		

2. HAZARDS IDENTIFICATION

Signal word
Danger**Hazard statements**Toxic if swallowed Harmful if inhaled
Causes severe skin burns and eye damage**Appearance** Blue liquid**Physical state** Liquid**Odor** Acrid Acid odor

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1

Precautionary Statements - PreventionWash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection**Precautionary Statements - Storage**

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC) Not Applicable**Precautionary Statements - Response**

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

IF ON SKIN: (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse

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

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Sulfuric acid	7664-93-9	5-10	*
Hydrogen fluoride	7664-39-3	5-10	*

4. FIRST AID MEASURES

General advice

When seeking medical attention, emphasize exposure to hydrofluoric acid.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediate medical attention is required. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration.**Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediate medical attention is required. Irrigate open eyelids with 500 to 1,000 cc's of 1% Calcium Gluconate in saline solution.**Ingestion:** Rinse mouth. Do NOT induce vomiting. Immediate medical attention is required. Drink high amounts of calcium based antacid in water followed by milk or milk of magnesia. Never give anything by mouth to an unconscious person.**Skin Contact:** Remove contaminated clothing while flushing area with drenching shower for 5 minutes. Wash contaminated clothing before reuse. Immediate medical attention is required. Apply 2.5% Calcium Gluconate ointment to contacted area.**Most important symptoms and effects, both acute and delayed****Symp-** May cause irritation to the mucous membranes and upper respiratory tract. Contact will cause irritation and redness to exposed areas. Exposed individuals may experience eye tearing, redness and discomfort. Irritation and corrosive burns to mouth, throat, and stomach.**Note to physicians**

Treat symptomatically. Existing conditions aggravated by exposure: skin disorders, skin allergies, respiratory disorders, eye disorders. Inhaling HF vapors can seriously damage the lungs. Delayed reactions up to and including fatal pulmonary edema may not be apparent for hours after the initial exposure. In 20%-50% HF concentrations, burns can be delayed 1 to 8 hours. Concentrations of less than 20% HF may cause delayed painful erythema up to 24 hours after contact. Latent skin burns and necrosis with slow healing can occur even at concentrations of 2% HF.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Carbon dioxide (CO2). Water spray (fog). Dry chemical. Chemical foam.**Unsuitable Extinguishing Media** Do not use solid streams of water, except to cool closed containers.**Specific hazards arising from the chemical** Keep containers cool with water spray to prevent container rupture due to steam buildup. Contents are corrosive and all personal contact must be avoided. Contact with B:C extinguisher powder may produce large amounts of carbon dioxide. Contact with metals may evolve flammable hydrogen gas.**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: Use personal protective equipment as required.**Environmental precautions:** Do not allow into any sewer, on the ground or into any body of water. For spills in excess of allowable limits (RQ) notify the National Response Center (800) 424-8802; refer to SARA Title III, Section 313 40 CFR 372, and CERCLA 40 CFR 302 for detailed instructions on reporting requirements.**Methods for containment:** Confine and absorb into approved absorber. **Methods for cleaning up:** Place in appropriate containers for disposal.

7. HANDLING AND STORAGE

Advice on safe handling: Wash thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use only in well-ventilated areas. Use personal protection recommended in Section 8. Protect container from physical damage.**Storage Conditions:** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep locked up and out of reach of children. Protect from extreme temperatures.**Packaging materials:** This product will attack glass, concrete, and certain metals.**Incompatible materials:** Strong oxidizing agents. Strong alkalis. Metals. Cyanides. sulfides. Glass. Ceramics.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines****Chemical Name**Hydrogen Fluoride
7664-39-3**ACGIH TLV**TWA: 0.5 ppm F TWA: 2.5 mg/m3
F S⁺ Ceiling: 2 ppm F**OSHA PEL**TWA: 3 ppm F TWA: 2.5 mg/m3 F (vacated) TWA:
3 ppm F (vacated) TWA: 2.5 mg/m3 (vacated)
STEL: 6 ppm F**NIOSH IDLH**IDLH: 30 ppm
Ceiling: 6 ppm 15 min Ceiling: 5 mg/m3
15 min
TWA: 3 ppm TWA: 2.5 mg/m3
IDLH: 15 mg/m3 TWA: 1 mg/m3Sulfuric acid
7664-93-9

TWA: 0.2 mg/m3 thoracic fraction

TWA: 1 mg/m3
(vacated) TWA: 1 mg/m3**Other Information**

Airborne concentrations of 10-15 ppm will irritate the eyes, skin, and respiratory tract; 30 ppm is considered "Immediately Dangerous to Life and Health" (IDLH) and may have irreversible health effects; above 50 ppm, even brief exposure may be fatal.

Engineering Controls

Apply technical measures to comply with the occupational exposure limits. Provide sufficient mechanical ventilation to maintain exposure below TLV(s). Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment**Eye/face protection:**

Wear approved safety goggles. Wear safety glasses with side shields (or goggles).

Skin and body protection:

Saranex, Barricade, Chemrel, Responder, or Butyl rubber gloves required. Do not use nitrile rubber, polyvinyl alcohol, or polyvinyl chloride. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection:

None needed under normal use conditions with adequate ventilation. If the occupational exposure limits are exceeded, a NIOSH approved respirator with acid gas cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Values	Remarks	Property	Values	Remarks
pH	<1		Vapor density	>1	(Air=1)
Melting point/freezing point	Not determined		Specific Gravity	1.04	(1=Water)
Boiling point/boiling range	100 °C / 212 °F		Water solubility	Completely soluble	
Flash point Evaporation	Non-flammable		Solubility in other solvents	Not determined	
rate Flammability (solid, gas) Flammability Limits in Air	<1	(water = 1)	Partition coefficient	Not determined	
Upper flammability limits	n/a-liquid		Autoignition temperature	Not determined	
Lower flammability limit	Not applicable		Decomposition temperature	Not determined	
Vapor pressure	17 mm Hg	@ 20 °C	Kinematic viscosity	Not determined	
			Dynamic viscosity	Not determined	
			Explosive properties	Not determined	
			Oxidizing properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions
Chemical stability Stable under recommended storage conditions.
Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur. Non-hazardous endothermic polymerization may occur in both the liquid and gas phases. Extreme temperatures.

Incompatible materials

Strong oxidizing agents. Strong alkalis. Metals. Cyanides. sulfides. Glass. Ceramics.

Hazardous Decomposition Products

Decomposition will not occur if handled and stored properly. In case of fire, oxides of carbon, hydrocarbons, fumes or vapors, and smoke may be produced. Fluorine.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

		Component Information			
		Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Inhalation	Harmful if inhaled.	Hydrogen fluoride 7664-39-3	-	-	1276 ppm (Rat) 1 h 850 mg/m3 (Rat) 1 h
Eye contact	Causes severe eye damage.				
Skin Contact	Causes severe skin burns.	Sulfuric acid 7664-93-9	2140 mg/kg (Rat)	-	347 ppm (Rat) 1 h 510 mg/m3 (Rat) 2 h
Ingestion	Toxic if swallowed				

Carcinogenicity

Note: The agencies below have listed Strong Inorganic Acid Mists, containing Sulfuric Acid as a known carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sulfuric acid 7664-93-9	A2	Group 1	Known	X

Other adverse effects Not determined

12. ECOLOGICAL INFORMATION

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

Other adverse effects Not determined

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Disposal of wastes/Contaminated packaging: Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status: considers Sulfuric acid (7664-93-9) as Toxic Corrosive

14. TRANSPORT INFORMATION

DOT

UN/ID No	UN1786	Subsidiary class	6.1
Proper shipping name	Hydrofluoric acid and Sulfuric acid mixtures	Packing Group	I
Hazard Class	8	Reportable Quantity (RQ)	hydrofluoric acid 100 lbs; sulfuric acid 1000 lbs

IMDG

UN/ID No	UN1786
Proper shipping name	Hydrofluoric acid and Sulfuric acid mixture
Hazard Class	8
Subsidiary hazard class	6.1
Packing Group	I

IATA

UN/ID No	Cargo Aircraft only UN1786
Proper shipping name	Hydrofluoric acid and Sulfuric acid mixture
Hazard Class	8
Subsidiary hazard class	6.1
Packing Group	I

15. REGULATORY INFORMATION

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory-DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances-ENCS - Japan Existing and New Chemical Substances IECSC - China Inventory of Existing Chemical Substances- KECL - Korean Existing and Evaluated Chemical Substances-PICCS - Philippines Inventory of Chemicals and Chemical Substances*

US Federal Regulations

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold
			Values %
Hydrogen fluoride	7664-39-3	10 - 5	1
Sulfuric acid	7664-93-9	10 - 5	1

SARA 311/312 Hazard Categories

Chemical Name	CWA - Reportable	CWA - Toxic Pol- lutants	CWA - Priority Pol- lutants	CWA - Hazardous
	Quantities			Substances
Sulfuric acid	1000 lb			X
7664-93-9				
Hydrogen fluoride	100 lb			X
7664-39-3				

Chemical Name	Hazardous Sub- stances RQs	CERCLA/SARA RQ	Reportable Quan- tity (RQ)
Sulfuric acid	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final
7664-93-9			RQ
Hydrogen fluoride	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final
7664-39-3			RQ

US State Regulations California Proposition 65 Considers Sulfuric acid (7664-93-9) as a Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydrogen fluoride	X	X	X
7664-39-3			
Sulfuric acid	X	X	X
7664-93-9			

16. OTHER INFORMATION

NFPA	Health hazards	Flammability	Instability	Special Hazards
	Not determined	Not determined	Not determined	Not determine
HMIS	Health hazards	Flammability	Physical hazards	Personal protection
	3	0	1	Not determined

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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