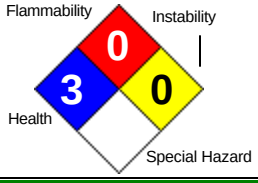
SAFETY DATA SHEET
Aluminum Cleaner

HEALTH	3
FLAMMABILITY	0
PHYSICAL	0
PPE	D



Printed: 12/08/2011
Revision: 12/07/2011

1. Product and Company Identification

Product Code: 00003

Product Name: Aluminum Cleaner

Manufacturer Information

Company Name: Skyrex Inc.
109 Aldene Road
Roselle, NJ 07203

Emergency Contact: ChemTel (800)255-3924

2. Hazards Identification

GHS Classification

GHS Classification	Placard	Key word	GHS Hazard
Corrosive To Metals, Category 1	Corrosive	Warning	May be corrosive to metals
Serious Eye Damage/Eye Irritation, Category 1	Corrosive	Danger	Causes serious eye damage
Acute Toxicity: Oral, Category 1	Skull and crossbones	Danger	Fatal if swallowed
Skin Corrosion/Irritation, Category 1C	Corrosive	Danger	Causes severe skin burns and eye damage

GHS Hazard Phrases

May be corrosive to metals. Causes serious eye damage. Fatal if swallowed. Causes severe skin burns and eye damage.

GHS Precaution Phrases

Keep only in original container. Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapours/spray.

GHS Response Phrases

Absorb spillage to prevent material damage. 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 SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Specific treatment (see ... on this label) ... reference to supplemental first aid instruction - if immediate administration of antidote is required. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

GHS Storage and Disposal Phrases

Store in corrosive resistant/... container with a resistant inliner. ... other compatible materials specified by the manufacturer/supplier or the competent authority. Store locked up. Dispose of contents/container to ... (in accordance with local/regional/national/international regulation).

Emergency Overview

Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns. May be fatal if mist inhaled. Strong inorganic acid mists containing sulfuric acid may cause cancer. May cause lung damage. Hygroscopic (absorbs moisture from the air). Warning! Harmful if swallowed, inhaled, or absorbed through the skin. Causes eye and skin irritation.

Route(s) of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes

Potential Health Effects (Acute and Chronic)

Causes severe eye burns. May cause irreversible eye injury. May cause blindness. The severity of injury depends on the concentration of the solution and the duration of exposure. Causes redness and pain.

Skin: Causes skin burns. May be fatal if absorbed through the skin. A skin notation is not recommended by ACGIH, based on estimates from physiologically based pharmacokinetic models which indicate that, even in worst-case dermal-exposure scenarios, 2-butoxyethanol is not absorbed in amounts sufficient to cause red blood cell hemolysis in humans.

Ingestion: May cause severe and permanent damage to the digestive tract. May be fatal if swallowed. May cause irritation of the digestive tract. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract. Because its vapor pressure is negligible, it exists in the air only as a mist or spray. Exposure may impair lung function and cause mucostasis (reduced mucous clearance). Prolonged or repeated inhalation may cause nosebleeds, nasal congestion, erosion of the teeth, perforation of the nasal septum, chest pain and bronchitis. May cause lung damage.

May cause liver and kidney damage. Sophisticated modeling has clearly proven that 2-butoxyethanol does not build up in the body under any kinds of normal use.

LD 50 / LC 50

Ingredient CAS# 7664-93-9, Sulfuric acid:
CAS# 7664-93-9: Draize test, rabbit, eye: 250 ug Severe;
Inhalation, Mouse: LC50 = 320 mg/m3/2H
Inhalation, Mouse: LC50 = 320 mg/m3
Inhalation, rat: LC50 = 510 mg/m3/2H;.
Inhalation, rat: LC50 = 510 mg/m3;.
Oral, Rat: LD50 = {640}

Ingredient CAS# 7664-39-3, Hydrogen fluoride:
CAS# 7664-39-3: Ingredient CAS# 111-76-2, Ethanol, 2-Butoxy-:
CAS# 111-76-2: Dermal, guinea pig: LD50 = 230 uL/kg;
Draize test, rabbit, eye: 100 mg Severe;
Draize test, rabbit, eye: 100 mg/24H Moderate;
Oral, mouse: LD50 = 1230 mg/kg;
Oral, mouse: LD50 = 1167 mg/kg;
Oral, Rabbit: LD50 = 300 mg/kg;
Oral, Rabbit: LD50 = 320 mg/kg;
Oral, rat: LD50 = 470 mg/kg;
Oral, rat: LD50 = 917 mg/kg;
Skin, Rabbit: LD50 = 220 Humans are less susceptible than rodents to 2-butoxyethanol 2-Butoxyethanol gives toxic results when tested on rabbits and rats. It does not behave the same when humans are exposed to it. This is explained by the different makeup of the red blood cells of test animals vs. humans. Test animal red blood cells are hypersensitive to 2-butoxyethanol when compared to humans.

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration
1. Sulfuric acid	7664-93-9	~20 %
2. Hydrogen fluoride	7664-39-3	<5.0 %
3. Ethoxylated alcohol	68439-50-9	<5.0 %
4. Ethanol, 2-Butoxy-	111-76-2	<5.0 %

4. First Aid Measures

Emergency and First Aid Procedures

Eyes: Get medical aid immediately. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

Skin: Wash clothing before reuse.

Ingestion: Call a poison control center. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Inhalation: If not breathing, give artificial respiration. Remove from exposure and move to fresh air immediately.

Note to Physician

Monitor arterial blood gases, chest x-ray, and pulmonary function tests if respiratory tract irritation or respiratory depression is evident. Treat dermal irritation or burns with standard topical therapy. Effects may be delayed. Do NOT use sodium bicarbonate in an attempt to neutralize the acid. Treat symptomatically and supportively.

Signs and Symptoms Of Exposure

5. Fire Fighting Measures

Flash Pt: NP Method Used: Estimate

Explosive Limits: LEL: UEL:

Autoignition Pt: NP

Fire Fighting Instructions

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water spray to keep fire-exposed containers cool. Substance is noncombustible. Contact with water can cause violent liberation of heat and splattering of the material. Contact with metals may evolve flammable hydrogen gas. Runoff from fire control or dilution water may cause pollution. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Strong dehydrating agent which may cause ignition of finely divided materials on contact. Will burn if involved in a fire. Combustible liquid and vapor.

Flammable Properties and Hazards

Suitable Extinguishing Media

Use extinguishing media appropriate to surrounding fire conditions. Do NOT get water inside containers. Use water spray, dry chemical, carbon dioxide, or chemical foam.

Unsuitable Extinguishing Media

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Carefully scoop up and place into appropriate disposal container. Provide ventilation. Do not get water inside containers. Cover with dry earth, dry sand, or other non-combustible material followed with plastic sheet to minimize spreading and contact with water. Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

7. Handling and Storage

Precautions To Be Taken in Handling

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Use only with adequate ventilation. Discard contaminated shoes. Inform laundry personnel of contaminant's hazards. Do not breathe dust, mist, or vapor. Do not ingest or inhale.

Precautions To Be Taken in Storing

Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Do not store near alkaline substances. Store in a cool, dry place. Store in a tightly closed container.

8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TWA	Other Limits
1. Sulfuric acid	7664-93-9	PEL: 1 mg/m3	TLV: (1 mg/m3) STEL: (3 mg/m3)	
2. Hydrogen fluoride	7664-39-3	PEL: 3 ppm	CEIL: 3 ppm	
3. Ethoxylated alcohol	68439-50-9			
4. Ethanol, 2-Butoxy-	111-76-2	PEL: 50 ppm	TLV: 20 ppm	

Respiratory Equipment (Specify Type)

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Eye Protection

Wear chemical splash goggles and face shield. Not available. Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Protective Gloves

Wear neoprene gloves, apron, and/or clothing. Viton gloves are recommended. Wear appropriate protective gloves to prevent skin exposure.

Other Protective Clothing

Wear appropriate protective clothing to prevent skin exposure.

Engineering Controls (Ventilation etc.)

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use a corrosion-resistant ventilation system. Use adequate ventilation to keep airborne concentrations low. Use only under a chemical fume hood.

Work/Hygienic/Maintenance Practices

9. Physical and Chemical Properties

Physical States: [ ] Gas [X] Liquid [ ] Solid

Freezing Point: < 0 C

Boiling Point: > 0 C

Decomposition Temperature: NP

Autoignition Pt: NP

Flash Pt: NP Method Used: Estimate

Specific Gravity (Water = 1): ~ 1.20

Vapor Pressure (vs. Air or mm Hg): NP

Vapor Density (vs. Air = 1): NP

Evaporation Rate: 1 (H2O=1)

Solubility in Water: misc.

Percent Volatile: < 5.0 % by weight.

VOC / Volume: NP

HAP / Volume: NP

Saturated Vapor Concentration: NP

pH: ~ 1

Appearance and Odor

Clear.
sulfurous odor.

10. Stability and Reactivity

Stability: Unstable [ ] Stable [X]

Conditions To Avoid - Instability

Always add the acid to water, never the reverse.

Incompatibility - Materials To Avoid

Reducing agents, Bases, acrylonitrile, chlorates, Finely powdered metals, nitrates, perchlorates, permanganates, epichlorohydrin, aniline, carbides, fulminates, picrates.

Hazardous Decomposition Or Byproducts

oxides of sulfur, Carbon monoxide.

Possibility of Hazardous Reactions: Will occur [ ] Will not occur [X]

Conditions To Avoid - Hazardous Reactions

11. Toxicological Information

Epidemiology: Workers exposed to industrial sulfuric acid mist showed a statistical increase in laryngeal cancer. This data suggests a possible relationship between carcinogenesis and inhalation of sulfuric acid mist.
Teratogenicity: Sulfuric acid was not teratogenic in mice and rabbits, but was slightly embryotoxic in rabbits (a minor, rare skeletal variation). The animals were exposed to 5 and 20 mg/m3 for 7 hr/day throughout pregnancy. Slight maternal toxicity was present at the highest dose in both species.
Reproductive Effects: No information found.
Mutagenicity: There are no mutagenicity studies specifically of sulfuric acid. However, there are established effects of reduced pH in mutagenicity testing, as would be caused by sulfuric acid. These effects are an artifact of low pH and are not necessarily due to biological effects of sulfuric acid itself.
Neurotoxicity: Other Studies: No data available.
Teratogenicity: No data available.

Teratogenicity: No information available.

Carcinogenicity/Other Information

CAS# 7664-93-9: ACGIH: A2 - Suspected Human Carcinogen.
California: carcinogen, initial date 3/14/03 (listed as Strong inorganic acid mists containing sulfur. NTP: Known carcinogen (listed as Strong inorganic acid mists containing s).
CAS# 7664-39-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 111-76-2: ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans.
California: Not listed.
NTP: Not listed.
IARC: Not listed.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Sulfuric acid	7664-93-9			A2	
2. Hydrogen fluoride	7664-39-3				
3. Ethoxylated alcohol	68439-50-9				
4. Ethanol, 2-Butoxy-	111-76-2			A3	

12. Ecological Information

Ecotoxicity: Fish: Bluegill/Sunfish: 49 mg/L; 48Hr; TLm (tap water @ 20C)
Fish: Bluegill/Sunfish: 24.5 ppm; 48Hr; TLm (fresh water) No information available. No data available. 24-Hr. LC50; goldfish: 1650 mg/L 96-Hr. LC50; bluegill sunfish: 1490 mg/L96-Hr. LC50; tidewater silversides: 1250 mg/L
Environmental: TERRESTRIAL FATE: Based on a recommended classification scheme, an estimated Koc value of 67,, determined from an experimental log Kow and a recommended regression-derived equation, indicates that ethylene glycol mono-n-butyl ether is expected to have high mobility in soil. An estimated BCF value of 2.5 was calculated for ethylene glycol mono-n-butyl ether, using an experimental log Kow of 0.83 and a recommended regression-derived equation. According to a recommended classification scheme, this BCF value suggests that bioconcentration in aquatic organisms is low.
Physical: No information found.
Other: An estimated BCF value of 2.5,, from an experimental log Kow, suggests that ethylene glycol mono-n-butyl ether bioconcentration in aquatic organisms will be low, according to a recommended classification scheme.

13. Disposal Considerations

Waste Disposal Method

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed. RCRA U-Series:
CAS# 7664-39-3: waste number U134 (Corrosive waste, Toxic waste).

14. Transport Information

Globally Harmonized System of Classification and Labelling

Corrosive To Metals, Category 1 - Warning! May be corrosive to metals
Serious Eye Damage/Eye Irritation, Category 1 - Danger! Causes serious eye damage
Acute Toxicity: Oral, Category 1 - Danger! Fatal if swallowed
Skin Corrosion/Irritation, Category 1C - Danger! Causes severe skin burns and eye damage

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name SULFURIC ACID. Not regulated as a hazardous material. NOT REGULATED FOR DOMESTIC TRANSPORT.

DOT Hazard Class: 8

DOT Hazard Label: CORROSIVE

UN/NA Number: UN1786

Packing Group: I

LAND TRANSPORT (Canadian TDG)

TDG Shipping Name SULFURIC ACID. No information available. Not Regulated.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Sulfuric acid	7664-93-9	Yes 1000 LB	Yes 1000 LB	Yes	No
2. Hydrogen fluoride	7664-39-3	Yes 100 LB	Yes 100 LB	Yes	Yes
3. Ethoxylated alcohol	68439-50-9	No	No	No	No
4. Ethanol, 2-Butoxy-	111-76-2	No	No	Yes-Cat. N230	No

Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Sulfuric acid	7664-93-9	No	No	Inventory	No
2. Hydrogen fluoride	7664-39-3	HAP	No	Inventory, 4 Test, 12(b)	No
3. Ethoxylated alcohol	68439-50-9	No	No	Inventory	No
4. Ethanol, 2-Butoxy-	111-76-2	No	No	Inventory	No

Hazardous Components (Chemical Name)	CAS #	CA TAC, Title 8	MA Oil/HazMat	MI CMR, Part 5	NC TAP
1. Sulfuric acid	7664-93-9	TAC, Title 8	Yes	Part 5	Yes
2. Hydrogen fluoride	7664-39-3	TAC, Title 8	Yes	Part 5	Yes
3. Ethoxylated alcohol	68439-50-9	No	No	No	No
4. Ethanol, 2-Butoxy-	111-76-2	TAC, Title 8	Yes	No	No

Hazardous Components (Chemical Name)	CAS #	NJ EHS	NY Part 597	PA HSL	SC TAP
1. Sulfuric acid	7664-93-9	Yes - 1761	Yes	Yes - E	Yes
2. Hydrogen fluoride	7664-39-3	Yes - 3759	Yes	Yes - E	No
3. Ethoxylated alcohol	68439-50-9	No	No	No	No
4. Ethanol, 2-Butoxy-	111-76-2	Yes - 0275	No	Yes - 1	No

Hazardous Components (Chemical Name)	CAS #	WI Air
1. Sulfuric acid	7664-93-9	Yes
2. Hydrogen fluoride	7664-39-3	Yes
3. Ethoxylated alcohol	68439-50-9	No
4. Ethanol, 2-Butoxy-	111-76-2	Yes

SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:

Sec.302: EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. * indicates 10000 LB TPQ if not volatile.

Sec.304: EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. ** indicates statutory RQ.

Sec.313: EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.

Sec.110: EPA SARA 110 Superfund Site Priority Contaminant List

TSCA (Toxic Substances Control Act) Lists:

Inventory:	Chemical Listed in the TSCA Inventory.
5A(2):	Chemical Subject to Significant New Rules (SNURS)
6A:	Commercial Chemical Control Rules
8A:	Toxic Substances Subject To Information Rules on Production
8A CAIR:	Comprehensive Assessment Information Rules - (CAIR)
8A PAIR:	Preliminary Assessment Information Rules - (PAIR)
8C:	Records of Allegations of Significant Adverse Reactions
8D:	Health and Safety Data Reporting Rules
8D TERM:	Health and Safety Data Reporting Rule Terminations
12(b):	Notice of Export

Other Important Lists:

CWA NPDES:	EPA Clean Water Act NPDES Permit Chemical
CAA HAP:	EPA Clean Air Act Hazardous Air Pollutant
CAA ODC:	EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)
CA PROP 65:	California Proposition 65
CA TAC:	California AB 1807 - Toxic Air Contaminants
CA Title 8:	California Hazardous Substances List: Title 8, Sec. 339
MI CMR:	Michigan Critica Materials Register
MI Part 5:	Michigan DEQ WRP Part 5 Pollutants List
NC TAP:	North Carolina Toxic Air Pollutants
NJ EHS:	New Jersey Environmental Hazardous Substances List
NY Part 597:	New York Part 597 List of Hazardous Substances
PA HSL:	Pennsylvania Hazardous Substances List
SC TAP:	South Carolina Toxic Air Pollutants
WI Air:	Wisconsin Reportable Air Contaminants

International Regulatory Lists:

EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

[ ] Yes [X] No Acute (immediate) Health Hazard

[ ] Yes [X] No Chronic (delayed) Health Hazard

[ ] Yes [X] No Fire Hazard

[ ] Yes [X] No Sudden Release of Pressure Hazard

[ ] Yes [X] No Reactive Hazard

16. Other Information

Company Policy or Disclaimer

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.

*NOTE: Hazard Determination System (HDS) rating are based on a 0-4 scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.