MATERIAL SAFETY DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ALU-BRIGHT **DATE: April 11, 2007**

SUPPLIER: Melrose Chemicals Ltd.
2323-46th ave.
Lachine, QC
CANADA H8T 3C9
Tel: +1 (514) 631-2998
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PRODUCT USE: Aluminum and stainless steel brightener

II. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Identity:	EINECS #	CAS #	% Conc.	Classification
Ortho phosphoric acid	231-633-2	7664-38-2	5 - 10	C; R34
Sulphuric acid	231-639-5	7664-93-9	7 - 13	C; R35
Hydrofluoric acid	231-634-8	7664-39-3	15 - 40	T+, C; R26/27/28, 35
Alcohol C14-15, ethoxylated	polymer	68951-67-7	1 - 5	X_n, N; R22, 41, 50

Ingredients according to Directive 2004/648/EC

Phosphates	5 - 15%
Non-ionic surfactants	<5%

III. HAZARDS IDENTIFICATION

Hazard classification of product according to Directive 1999/45/EC: T+, very toxic; C, corrosive
Hazards for humans: Very toxic on inhalation, in contact with skin and if swallowed. Causes severe burns.
Hazards for environment: Strong acid, pH value of water can harm water-organisms.

IV. FIRST AID MEASURES

Contact with skin: Remove contaminated clothing and wash with large amounts of water for 15 to 20 minutes. Have someone make arrangements for medical attention while you continue flushing the affected area with water. If available, after thorough washing, the burned area should be immersed in a solution of 0.2% iced aqueous Hyamine 1622 or 0.13% iced aqueous Zephiran Chloride. If immersion is not practical, towels should be soaked with one of the above solutions and used as compresses for the burned area. Seek medical attention as soon as possible for all burns regardless how minor they may appear initially.
Contact with eyes: Immediately flush with large quantities of water for 20 to 30 minutes. Hold eyes open while flushing. Call physician. Continue flushing water up to 1 hour during transport to a medical facility. If a physician is not immediately available, apply one or two drops of Pontocaine Hydrochloride Solution followed by a second irrigation of 15 minutes.
Inhalation: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.
Ingestion: Drink one glass of water immediately. **Do not induce vomiting**. Call Regional Poison Control Centre at once or see your local hospital emergency at once.

V. FIRE FIGHTING MEASURES

Conditions of flammability: Not applicable.
Means of extinction: Not applicable.
Hazardous combustion products: Not applicable.
Unusual fire and explosion hazards: Non combustible material; contact with some metals may generate hydrogen gas.

VI. ACCIDENTAL RELEASE MEASURES

Procedures to be followed in case of spills or leaks: Dilute small spills or leaks cautiously with water. Neutralise with alkali such as soda ash or lime. Adequate ventilation is required for soda ash due to the release of CO_2 gas. No smoking in spill areas. Major spills must be handled by a predetermined plan. Diking with soda ash is recommended. Attempt to keep out of sewers.
Personal protective equipment to be used: Protective gloves and safety glasses.

VII. HANDLING AND STORAGE

Special handling procedures and equipment: Smoking or open lights should not be permitted near open drums, tank trucks, or storage tanks. Use explosion proof lights and flashlights. When diluting, always add acid to water, never water to acid. Heat is generated upon dilution.
Specific storage requirements: Do not store near excessive heat or open flame. Store in closed containers. Do not freeze.

VIII. EXPOSURE CONTROL/PERSONAL PROTECTION

Respiratory Protection: Self-contained breathing apparatus must be worn when concentrations are high or unknown. Canister type respirators are suitable when concentrations are known to be very low (<1%).
Protective Gloves: Rubber or neoprene.
Eye Protection: Chemical safety goggles to prevent eye contact.
Additional Protective Equipment: Rubber boots, coat and pants; safety shower and an eye wash facility should be available.
Ventilation: General ventilation with a good source of make-up air recommended for all indoor situations. Local ventilation recommended at source of contamination generation. Ventilation should be adequate enough to maintain air concentrations below the designated exposure limit.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Flashpoint and method of determination: Not applicable.
Flammable limits (% in air): LOWER: Not applicable. **UPPER:** Not applicable.
Auto-Ignition temp.: Not applicable.
Physical State: Liquid **Vapour density:** Not determined.
Coefficient of n-octanol/water distribution: Not determined.
Odour: Pungent, acid. **Boiling Point:** 104°C
Specific Gravity: 1.16 **Freezing Point:** -35°C
Vapour Pressure: 12 mm Hg @ 20°C. **pH:** 1.1 - 1.5
Evaporation Rate: <0.1 (n-Butyl Acetate=1) **Colour:** Red
Solubility in water: Complete **Odour threshold:** Not applicable.

X. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions. Hazardous polymerization will not occur.
Incompatible substances: Avoid strong oxidizing and reducing agents. Will react with solid or liquid alkalies such as sodium hydroxide, potassium hydroxide and ammonium hydroxide.
Conditions of reactivity: Avoid contamination with reactive substances. Do not mix with alkaline materials.
Hazardous decomposition products: Reacts with some metals to produce hydrogen which may form explosive mixtures with air. When heated, hydrogen fluoride is released which is toxic, corrosive and extremely irritating.

XI. TOXICOLOGICAL INFORMATION

Probable route of exposure: Splashes on skin and in eyes.
Exposure Limits: TWA 2.5mg(F)/m^3; CL 5.0 mg(F)/m^3/15 minutes
Effect of acute and chronic exposure to product: Very toxic on inhalation, in contact with skin and if swallowed. Causes severe burns.
Irritating: No
Sensitisation to product: No
Carcinogenicity: Data not available.
Reproductive toxicity: Data not available.
Teratoxicity: Data not available.
Mutagenicity: Data not available.
Name of toxicologically synergistic product(s): Data not available.

XII. ECOLOGICAL CONSIDERATIONS

Environmental toxicity information: The surfactants contained in this product comply with the biodegradability criteria as laid down in Directive 2004/648/EC. Strong acid, pH value of water can harm water-organisms.

XIII. DISPOSAL CONSIDERATIONS

For the product: EC disposal code №:
20 01 29 (detergent containing dangerous substances).
For the packaging: EC disposal code №:
15 01 02 (plastic packaging). Can be recycled.

XIV. TRANSPORT INFORMATION

CARRIAGE BY ROAD (CROSSING BORDERS) ADR/RID:

ADR/RID Class:	8 C9
Hazard Identification Number:	80
UN Number:	1760
Packing group:	II
Label:	8
UN proper shipping name:	CORROSIVE LIQUID N.O.S. (Hydrofluoric Acid)

TRANSPORT BY SEA IMDG:

IMDG Class:	8
UN Number:	1760
Packing group:	II
EMS Number:	F-A, S-B
Label:	8
Marine pollutant:	No
UN proper shipping name:	CORROSIVE LIQUID N.O.S. (Hydrofluoric Acid)

TRANSPORT BY AIR ICAO-TI and IATA-DGR:

ICAO/IATA Class:	8
UN Number:	1760
Packing group:	II
Label:	8
UN proper shipping name:	CORROSIVE LIQUID N.O.S. (Hydrofluoric Acid)

XV. REGULATORY INFORMATION

Inventory Status: TSCA (USA), CEPA (Canada, DSL), EINECS (EU), China, TCCL (Korea, KECI), RA 6969 (Philippines, PICCS), NICNAS (Australia, AICS), IEC (Japan).
WHMIS CLASSIFICATION: Class D, div 1a., Class E
Danger symbol: C, corrosive; T+, very toxic

Risk phrases: 26/27/28 Very toxic on inhalation, in contact with skin and if swallowed.
35 Causes severe burns.
Safety phrases: 7/9 Keep container tightly closed and in a well-ventilated place.
26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.
28 After contact with skin wash immediately with plenty of water.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

XVI. OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian *Controlled Products Regulations* and the MSDS contains all the information required by the Canadian *Controlled Products Regulations*.
This Material Safety Data Sheet is in conformation with Directive 2001/58/EC.
R-Sentences of ingredients in paragraph II:
R22 Harmful if swallowed.
R26/27/28 Very toxic on inhalation, in contact with skin and if swallowed.

R34 Causes burns.
R35 Causes severe burns.
R41 Risk of serious damage to eyes.
R50 Very toxic to aquatic organisms.

Replaces: M.S.D. dated: April 11, 2004 **Version:** 8

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