



Shine Brite

Aluminum Brightener

DESCRIPTION

Shine Brite is a powerful blend of acid and surfactants designed to brighten and clean aluminum, stainless steel, and other soft metals. It is an excellent choice for use in two-step truck cleaning, as well as equipment and building surfaces. **Shine Brite** readily penetrates heavy grease, oils, exhaust residue and particulate soils that accumulate under today's extreme working conditions.

Shine Brite can be applied manually by brush or through injection with a pressure washer. For tractor-trailers, cube vans and stainless steel food processing equipment.

SPECIAL INFORMATION

Shine Brite is a hazardous product – use with caution. Protective gear must be worn. Prevent breathing vapors, or allowing contact with eyes, skin, or clothing. Always add **Shine Brite** to water and do not let it dry on a surface. Neutralize **Shine Brite** with an equal solution of Caustic Soda 25% and then rinse with plenty of potable water.

DIRECTIONS

Manual cleaning:

Add 6 - 8 oz of **Shine Brite** per US gallon of water (50 - 65 ml/litre) (1:15 - 1:20). Brush on, wait 60 seconds and rinse.

Works best when premixed with *Sulfuric Boost* before application. Add 1 - 2 oz of *Sulfuric Boost* for every 6 - 8 oz of **Shine Brite** per US gallon of water. Brush on, wait 60 seconds and rinse.

Pressure cleaning:

Inject at nozzle 1.5 oz. of **Shine Brite** per US gallon of water by volume (10 ml/litre) (1:100). Neutralize with same ratio of Caustic Soda 25% and rinse.

Please contact your M-chem Representative for information on specific applications.

PHYSICAL DATA

Appearance	Clear liquid
Color	Bright yellow
Foam	Low - Moderate
Odor	Acidic
pH	1.5 – 2.5

MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT/MANUFACTURER'S IDENTITY

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Product Name: **SHINE BRITE**

WHMIS CODE: D1A, D2B, E
Proper Shipping Name: HYDROFLUORIC ACID, solution, with not more than 60 per cent hydrofluoric acid
Hazard Class: Class 8 (6.1), P.G. II
UN Number: UN 1790

Product Use: *Stainless steel and aluminum brightener.*

HMIS	
3	Health
0	Flammability
1	Reactivity
C	Personal

A=Goggles, B=Goggles & Gloves
C=Goggles, Gloves and Apron

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ABBREVIATION KEY: N/A=Not Applicable, N/E=Not Established, N/D=Not Determined, > =Greater Than

SECTION 2 – HAZARDOUS INGREDIENTS INFORMATION

INGREDIENT	CAS NO.	RANGE %	PEL	TLV
ETHYLENE GLYCOL MONOBUTYLETHER Exposure Limit Skin: 25 ppm. The above item is reported per 40 CFR 372, Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986. LD50 (oral rat) 1746 mg/kg LD50 (dermal) 435 mg/kg (rabbit) LC50 700 ppm (mouse)	111-76-2	1.0-5.0	No Data	25 ppm TWA
HYDROFLUORIC ACID Acute inhalation toxicity concentrations of 50-250 ppm are dangerous for even brief exposures. LD50 (oral rat) No Data LD50 (dermal) No Data LC50 (gas) 1276 ppm 1 hour (rat); 348 ppm 1 hour (mouse)	7664-39-3	10.0-15.0	3 ppm	3 ppm
ALCOHOL ETHOXYLATE LD50 (oral rat) 1376 mg/kg LD50 (dermal rabbit) >2 g/kg	68439-46-3	1.0-5.0	N/A	N/A

SECTION 3 – PHYSICAL DATA

Color and Odor: Clear yellow, pungent odor. **Boiling Point:** N/D **Vapor Pressure (mm HG):** N/D **pH:** < 1.0
Physical State: Liquid. **Melting Point:** N/A **Vapor Density:** N/D **Specific Gravity:** 1.168 @ 20°C
Coef. Water/Oil Dist: Greater than 1.0 **Evaporation Rate:** N/D **Solubility in Water:** Soluble **Odor Threshold:** No Data

SECTION 4 – FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method: None to 100°C (TCC) **Sensitivity to Mechanical Impact:** None. **Extinguishing Media:** Not flammable.
Flammable Limits: None known. **Sensitivity to Static Discharge:** None. **Auto ignition Temperature:** None known.
Conditions of Flammability: None.
Unusual Fire and Explosion Hazards: Thermal decomposition may liberate flammable, corrosive and toxic gases. Also, may react with some metals to form flammable hydrogen gas (aluminum).
Hazardous Combustion Products: Oxides of carbon and sulfur, toxic/corrosive hydrogen fluoride vapours/gases upon thermal decomposition.
Special Fire Fighting: Wear full protective equipment, including a NIOSH/MSHA approved, self-contained breathing apparatus for fire fighting situations. Use water spray to cool all nearby fire exposed surfaces.

SECTION 5 – REACTIVITY DATA

Chemical Stability: Stable under normal storage conditions.
Hazardous Polymerization: Will not Occur.
Incompatibility (material to avoid): Strong oxidizers and alkaline, metals, concrete, glass.
Hazardous Decomposition Products: Oxides of carbon and sulfur, toxic/corrosive hydrogen fluoride vapours/gases upon thermal decomposition.

SECTION 6 – TOXICOLOGICAL DATA

Exposure Limits: See Section 2 under Hazardous Ingredient. **Routes of Entry:** Skin, eyes, skin absorption, and inhalation.
Irritancy of Product: Corrosive and poisonous to skin, eyes and respiratory system. **Sensitization:** None known.
Mutagenicity: None known. **Reproductive Toxicity:** None known.
Name of Toxicological Synergistic Product: None known. **Teratogenicity:** None known.

Carcinogenicity: CARCINOGENIC EFFECTS – Strong inorganic acid mists containing sulfuric acid - IARC Classified Group I (Proven for Human)

Effects of Acute Exposure to Product: Product exposure will cause severe irritation, burns or damage to skin and eyes. Inhalation of vapours or mists will cause severe irritation, burns, and damage to respiratory system. Acute inhalation also depletes calcium levels in the body and can lead to hypocalcemia. Inhalation exposure of 50 ppm for 5 min. may be fatal. Ingestion will cause severe burns or tissue damage to mouth and throat, gastrointestinal and abdominal pain. Severe systemic toxicity including hypomagnesemia, hyperkalemia, ventricular dysrhythmia and death may also occur.

Effects of Chronic Exposure: Prolonged or repeated exposure will cause skin or eye damage, tissue damage, respiratory disorder or lung damage, pulmonary edema and shock. Also, prolonged absorption of fluorides may cause fluorosis, which includes symptoms such as changes in bone density, (osteosclerosis), ossification of ligaments and mottling of the dental enamel. High-level chronic exposure can also cause hypocalcemia, metabolic acidosis, chronic bronchitis, pulmonary edema and death.

Absorption of Ethylene Glycol Monobutyl Ether (based on animal test data) through skin may cause blood disorders.

SECTION 7 – PREVENTATIVE AND CONTROL MEASURES

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Respiratory Protection: If vapours or mists are present, wear a NIOSH/MSHA respirator appropriate for the emission level during product use. Respirators may include the following: a full-face acid gas/mist respirator for hydrofluoric acid, or a self contained breathing apparatus or a supplied air respirator.

Ventilation: Good general ventilation or local exhaust ventilation for spraying and misting in confined areas.

Protective Gloves: Butyl rubber, neoprene or viton gloves.

Eye Protection: Chemical goggles or face shield with full-face respirator.

Protective Clothing and Equipment: Neoprene or butyl rubber apron and boots, long sleeve coveralls, nearby eyewash and safety shower.

Storage and Handling Procedures: Use good industrial hygiene. Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing sprays or mists. Store in a cool, dry place away from incompatibles. Keep container closed when not in use. Do not mix with any other chemicals. Store at temperatures below 30°C (86°F) and keep from freezing.

Disposal Procedures for Spills or Leaks: Wear protective equipment, including respirator. Dike and contain large spills. Pump spill into a DOT-approved waste container. For small spills, soak up with a suitable absorbent such as clay, soil or commercially available absorbents, and then dispose of into a DOT-approved waste container. Keep material away for sewers and natural waters.

Waste Disposal Method: Reuse if possible, or otherwise dispose recovered material in accordance with all local, Provincial or Federal Regulations.

Special Shipping Information: Do not place adjacent to chlorine/chlorite containing products. Physically separate the containers. Store at temperatures below 30°C (86°F) and keep from freezing.

SECTION 8 – EMERGENCY FIRST AID PROCEDURES

Eye Contact:

Flush immediately with cold water for 15 minutes. Get immediate medical aid. However, if no immediate physician available, apply one to two drops of 0.5% tetracaine hydrochloride solution followed by a second flush with water for another 15 minutes.

Skin Contact:

Flush immediately with cold water for 15 minutes. Remove contaminated clothing. Get immediate medical aid. Treat burned area immediately with the following: apply a 2.5% calcium gluconate gel to burned area, or immerse burned area with iced cold solution of 0.2% aqueous benzethonium chloride or 0.13% benzalkonium chloride. If immersion is not possible, soak clean towels with above solution and apply to the burned area as compresses. Compresses should be changed every two minutes. Prepared solutions of the above or calcium gluconate gel should be available at all times, and solutions should be changed annually.

Inhalation:

Remove victim to fresh air. Give artificial respiration if not breathing. Get immediate medical aid.

Ingestion:

Do not induce vomiting. Give plenty of water or milk. Get immediate medical aid. Also, note not to give anything by mouth to an unconscious person.

SECTION 9 - PREPARATION DATA

PREPARED BY: Technical Service / Regulatory Division

PHONE: 604-526-5655

LAST UPDATE: 07/04/11

THE INFORMATION PROVIDED IN THIS MATERIAL SAFETY DATA SHEET HAS BEEN OBTAINED FROM CURRENT SOURCES AND IS BELIEVED TO BE RELIABLE