

# Green Endeavor Inc. Leading The World In Cleaning Technology

Alumi-Brite

## Synthetic Acid Aluminum Cleaner and Brightener

Alumi-Brite is the world's only aluminum brightener and cleaner that is formulated without hydrofluoric or any other corrosive acid or caustic. Alumi-brite blends our OHSA and EPA compliant surfactants and detergents with SynTech, the world's only synthetic acid.

The result is a product that has near identical brightening properties to the harshest acids, yet is safe to the touch, the truck and equipment. Alumi-Brite does not etch the surface of the metal to "brighten," a process that eventually leaves your aluminum dull and grey. Instead, it removes contaminants from the pores of the metal, allowing the natural brightening properties of the metal to shine through.

And because Alumi-Brite is non-corrosive, it is safe to use anywhere on your truck and cab. This also means that Alumi-Brite does not release trace metals like traditional acids during the washing process.

Our newest Alumi-Brite formulation also boasts the benefits of Syn-Guard, a safe but potent fluorosurfactant. Similar to additives like Dupont's Teflon, SynGuard provides exceptional anti-stick properties making it more difficult for stains to adhere to the truck's surfaces.

Alumi-Brite carries a triple-zero HMIS score, is non-D.O.T. regulated, and has earned a USDA Authorized Category Code of A3 deeming it safe for use in and around food processing plants and equipment. It is 100% biodegradeable, water soluble, non-toxiz, non-butyl, and nonflammable. Alumi-Brite is also NSF certified A1, A2, A4, A5, A8, & C1.

Its performance has earned Alumi-Brite the recommendations of truck giants like Volvo and Mack.

- %\$\$1 'Gmbh' YhjW5 VjX
- Bcb!8 "C"H" FY[i`UhYX
- Bcb!: i a ]b[
- Bcb!7 cffcg]j Y
- 6 f][ \ hYbg 5`i a ]bi a
- GUZY'cb'DUjbh
- Safe on Glass
- Provides Anti-Stick Coat
- One Step, No Neutralizing











Green Endeavor Inc. is a direct distributor of SynTech-based products manufactured by EMS, Environmental Manufacturing Solutions, LLC. EMS carries all U.S. related certifications, approvals and registration of the individual products. Green Endeavor does not assert that we maintain any U.S. related designations for any products marketed or listed on our website. Please reference the EMS website at www.enviromfg.com for any and all U.S. related designations for all SynTech-based products. Green Endeavor Inc. is committed to only using safe surfactants in all of our formulated products and will only sell products that contain safe surfactants.

# **Technical Information**

#### **Technical Data**

Nitrate Level:	0% - None
Form:	Liquid
Odor:	Mild Soapy Odor
Cold Stability	18º F
Detergency:	Excellent
Toxicity:	Non Toxic
Wetting Ability:	Excellent
Storage Stability:	3 Year+
Shipper Regulations:	None
Flash Point:	None
Boiling Point:	212° F
Solubility in Water:	100%
Biodegradable:	Yes/100%
Volatile By Volume:	N/A
Carcinogens:	None
Viscosity:	Thin

#### **Dissolving Properties**

Aluminum Brightening Properties with 3 minute exposure

ACID	BRIGHTENING SCORE
HF (Hydrofluoric)	92.5
Alumi-Brite	90.1
HCI (Muriatic)	86.3
Sulfamic	73.0
Formic	71.1
Phosphoric	70.9
Citric	0.0
Lactic	0.2
Acetic	0.1
Glycolic	0.2
Gluconic	0.1
Rydlyme	0.3
Oxalic	0.0
Malic	0.4

#### **TEST CONDITIONS**

200 grams of 5% active solution

5 sq. inches of 7075-Y6 corroded aluminum saturated in a test solution for 3 minutes at 70 degree F.

Clearly, Alumi-Brite out performs acids when it comes to brightening aluminum, except HF (hydrofluoric) which is highly corrosive and extremely harmful to humans.

### **Toxicity Studies**

Toxicity Limits: Test Procedure OECD 202, 48 hr. LC 50 And LD 50 (Rat Oral) scores found Alumi-Brite to be non- toxic.

Mutagenicity Limits: OECD Guidelines Sec. 471 Chemicals Alumi-Brite was found not to be mutagenic

Dermal Irritation & Corrosion Test A modified draize method was used as described in OECD Guidelines for the Testing of Chemicals Sec. 404 and complies with the requirements of OECD principles of GLP, Annex revised as of July 1992.

Alumi-Brite received a Primary Irritation Score of 0.42 +/- 0.1 and is classified as a "Non-Skin Irritant"

Biodegradation & Aquatic Safety Test Procedure: Hach Reactor Digestion Method for waste water and sea water. Hach Reactor Digestion Method is a Semi-Micro Adaptation of the Standard Methods.

Test Results Conclude Alumi-Brite was found to be 100% Biodegradable

COD = Low Detectable Limits BOD = No Detectable Limits

#### **Metal Studies**

Dept. of Transportation (D.O.T.) Test Protocols as per section 173.154 Exceptions for Class 8 (corrosive materials): The material being tested must be proven to be non-destructive or not to cause irreversible alterations in human skin tissue. Testing was conducted on an albino rabbit.

Conclusion: Alumi-Brite proved to be non-destructive on human skin tissue.

Metal Test Limits: D.O.T. Classifies a material to be corrosive if it has a corrosion rate that exceeds 6.25 mmpy on SAE C1020 Carbon Steel.

Results of Alumi-Brite: SAE 1020 Carbon Steel = 0.24 mmpy Conclusion: Alumi-Brite is Non-Corrosive

### **Classifications & Approvals**

D.O.T., TDG, IMO, IATA, IMDG, SARA 313 311/312, California Prop 65 Non-Regulated

FDA: Approved as safe (GRAS) (CGMP) CFR 184.1923

USDA Authorization: A1, A2, A3, A4, A7, A8, C2, G6 & G7

NSF Authorization: A1, A2, A4, A5, A8, C1

Additional Studies & Results: When tested, Alumi-Brite showed no potential for the generation of Carbon Dioxide under NIOSH 7903, OSHA & ACGIH testing protocols governing workplace environments.









Green Endeavor Inc. is a direct distributor of SynTech-based products manufactured by EMS, Environmental Manufacturing Solutions, LLC. EMS carries all U.S. related certifications, approvals and registration of the individual products. Green Endeavor does not assert that we maintain any U.S. related designations for any products marketed or listed on our website. Please reference the EMS website at www.enviromfg.com for any and all U.S. related designations for all SynTech-based products. Green Endeavor lnc. is committed to only using safe surfactants in all of our formulated products and will only sell products that contain safe surfactants.