



# A-TEN-C, Inc.

"By-Product Recycling Strategies for Industry"  
Ceramics... Refractories... Abrasives

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## DATA SHEET

**Ceramic Coated - Brown Fused Aluminum Oxide**

**SIZE: C-Coat Tailings**

### CHEMISTRY: (TYPICAL)

|                                | <u>%</u> |
|--------------------------------|----------|
| Al <sub>2</sub> O <sub>3</sub> | 83.66    |
| Fe <sub>2</sub> O <sub>3</sub> | 5.30     |
| TiO <sub>2</sub>               | 4.03     |
| SiO <sub>2</sub>               | 4.99     |
| Na <sub>2</sub> O              | 0.25     |
| CaO                            | 0.55     |
| MgO                            | 0.28     |
| ZrO <sub>2</sub>               | 0.75     |
| K <sub>2</sub> O               | 0.19     |

**Material Safety Data Sheet**

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**SECTION 1 PRODUCT IDENTIFICATION****MATERIAL NAME AND TRADE NAMES:**Alodur, Lionite, Aluminum Oxide:  
GFC**HMIS**

|                     |   |
|---------------------|---|
| Health              | 1 |
| Flammability        | 0 |
| Reactivity          | 0 |
| Personal Protection | E |

**DATE PREPARED:** December 31, 2007 (supersedes 04/15/03)**EMERGENCY TELEPHONE NUMBER:** (716) 286-1234**CHEMICAL NAME AND SYNONYMS:**

Ceramic Coated Aluminum Oxide

**CHEMICAL FAMILY:**

Refractory Oxide

**FORMULA:**

NA

**SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

| INGREDIENT:    | TYPICAL<br>CAS # | OSHA<br>% | PEL<br>ACGIH           | TLV<br>Listed As**   | Carcinogen |
|----------------|------------------|-----------|------------------------|----------------------|------------|
| Aluminum Oxide | 1344-28-1        | 94.0      | 10 mg/m <sup>3</sup> * | 10 mg/m <sup>3</sup> | No         |
| Titanium Oxide | 13463-67-7       | 2.7       | 15 mg/m <sup>3</sup>   | 10 mg/m <sup>3</sup> | No         |

(SiO<sub>2</sub>, FeO<sub>3</sub>, CaO, MgO,\*Respirable Dust is 5 mg/m<sup>3</sup>

\*\*Listed as Carcinogen by - ACGIH, IARC, NTP, Cal. Prop. 65

**SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS**

|                                       |                                               |
|---------------------------------------|-----------------------------------------------|
| MELTING POINT (°C): 2050°C            | SPECIFIC GRAVITY (H <sub>2</sub> O = 1): 3.95 |
| BOILING POINT (°C): NA                | PERCENT VOLATILES BY VOLUME (%): NA           |
| VAPOR PRESSURE (mmHg):                | Essentially 0                                 |
| EVAPORATION RATE (Butyl Acetate = 1): | NA                                            |
| VAPOR DENSITY (Air = 1):              | NA                                            |
| SOLUBILITY IN WATER:                  | Insoluble                                     |
| ODOR: None                            | APPEARANCE: Dark Red                          |

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT:** Nonflammable **FLAMMABLE LIMITS:** NA

**EXTINGUISHING MEDIA:** NA

**SPECIAL FIRE FIGHTING PROCEDURES:** NA

**UNUSUAL FIRE AND EXPLOSION HAZARD:** NA

**BASIC FIREFIGHTING PROCEDURES:** This material does not give a flash point by conventional test methods. Use extinguishing agent suitable for type of surrounding fire.

**SECTION V - REACTIVITY DATA**

**STABILITY:** Stable      **CONDITIONS TO AVOID:** NA  
**INCOMPATIBILITY (MATERIALS TO AVOID):** Incompatible with hot chlorinated rubber.

**HAZARDOUS DECOMPOSITION PRODUCTS:** NA  
**HAZARDOUS POLYMERIZATION:** NA      **CONDITIONS TO AVOID:** NA

**SECTION VI - HEALTH HAZARD DATA****ROUTE OF ENTRY / EFFECTS OF OVEREXPOSURE:**

**INGESTION:** Not intended for ingestion, however if ingested may cause gastrointestinal disturbances.

**SKIN:** Slightly irritating. Abrasive action may cause cuts and abrasions.

**EYE:** Slightly irritating. Abrasive action may cause damage to the outer surface of the eye.

**INHALATION:** Dusts may cause respiratory tract irritation. Repeated or prolonged breathing of particles of respirable size may cause respiratory disorders. Pre-existing medical conditions may be aggravated by exposure: specifically chronic bronchial or lung disease.

**SPECIAL TOXIC EFFECTS:** NA

**SECTION VII - FIRST AID**

**INGESTION:** If victim is conscious, give 1-3 glasses of water to dilute stomach contents. Get medical attention for gastrointestinal symptoms.

**SKIN CONTACT:** Wash area of contact thoroughly with soap and water. Get medical attention if irritation persists.

**EYE CONTACT:** Flush immediately with large amounts of water. Eye lids should be held away from the eyeball to insure thorough rinsing. Get medical attention if irritation persists.

**INHALATION:** Remove affected person from source of exposure. Get medical attention if irritation persists.

**SECTION VIII - PERSONAL PROTECTION INFORMATION**

**RESPIRATORY PROTECTION:** Use NIOSH approved respiratory protection devices when airborne exposure limits are exceeded. Ventilation may be used to control or reduce airborne concentrations.

**SKIN PROTECTION:** Wear protective work gloves and regularly cleaned work clothing.

**EYE PROTECTION:** Use NIOSH approved safety glasses or goggles. Do not wear contact lenses when working with this material. Have eye washing facilities readily available where eye contact can occur.

**OTHER PROTECTIVE EQUIPMENT:** Arm sleeves or barrier creams may be useful in the prevention of dermatitis.

**WORK/HYGIENIC PRACTICES:** Maintain normal housekeeping procedures for nuisance dust.

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**SECTION IX - HANDLING AND STORAGE**

**HANDLING/STORAGE:** Use handling procedures which will limit exposure to excessive airborne dust.

**SECTION X - ENVIRONMENTAL PROCEDURES**

**SPILL OR RELEASE TO THE ENVIRONMENT:** No special procedures are required for clean-up of spills or leaks of this material. Use normal precautions for nuisance dusts as described in SECTION VII.

**WASTE DISPOSAL:** Dispose of in compliance with all Federal, State, regional, and local laws and regulations. This substance, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations. This substance could become a hazardous waste if it is mixed with or comes in contact with a hazardous waste. In this case check 40 CFR 261 to determine whether it is a hazardous waste. If it is a hazardous waste, regulations at 40 CFR 262, 263, and 264 apply.

**SECTION XI - TRANSPORTATION REQUIREMENTS**

D.O.T. HAZARD CLASS (49 CFR 172.101): NA  
D.O.T. PROPER SHIPPING NAME (49 CFR 172.101): NA  
D.O.T. LABELS REQUIRED (49 CFR 172.101): NA  
D.O.T. PLACARDS REQUIRED: NA  
BILL OF LADING DESCRIPTION: Alumina (Brown)

**SECTION XII - REGULATORY INFORMATION****U.S. FEDERAL REGULATIONS**

**OSHA STATUS:** This product is hazardous under the criteria of the Federal OSHA Communication Standard 29 CFR 1910.1200

**TSCA STATUS:** On TSCA Inventory

**CERCLA REPORTABLE QUANTITY:** None

**RCRA STATUS:** If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether the material should be classified as a hazardous waste under 40 CFR 261.20-24.

**SARA TITLE III:**

|                                             |                         |
|---------------------------------------------|-------------------------|
| SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: | None                    |
| SECTION 311/312 HAZARDOUS CATEGORIES        | Immediate Health Hazard |
| SECTION 313 TOXIC CHEMICALS                 | None                    |

**STATE REGULATIONS**

**California:** This product contains no levels of listed substances on the State of California Proposition 65.

**New Jersey:** This product contains no levels of chemicals listed as special hazard substances as defined in New Jersey Worker and Community Right to Know Act, New Jersey Administrative Code, Title 8, Department of Health, Chapter 59, Subchapter 10.

**Pennsylvania:** This product contains no levels of chemicals listed as special health hazard substances as defined in Pennsylvania Right-to-Know Law, Section 8800.

**INTERNATIONAL REGULATIONS****Canadian Workplace Hazardous Materials Information System (WHMIS)**

The following Canadian WHMIS categories apply to this product:

Compressed: - Flammable/Combustible: - Oxidizer: - Acutely Toxic: -  
Other Toxic Effects: x Dangerously Reactive: - Corrosive: - Biohazardous: -

**Canadian Environmental Protection Act (CEPA)**

All substances in this product are listed, as required, on the Domestic Substances List (DSL).

There are no chemicals in this product on the Non-Domestic Substances List.

**Definitions:**

|                          |                                                           |
|--------------------------|-----------------------------------------------------------|
| <b>ACGIH:</b>            | American Conference of Governmental Industrial Hygienists |
| <b>CAS:</b>              | Chemical Abstracts Service                                |
| <b>EPA:</b>              | Environmental Protection Agency                           |
| <b>HMIS:</b>             | Hazardous Materials Information System                    |
| <b>mg/m<sup>3</sup>:</b> | Milligrams per cubic meter                                |
| <b>NIOSH:</b>            | National Institute for Occupational Safety and Health     |
| <b>OSHA:</b>             | Occupational Safety and Health Administration             |
| <b>PEL:</b>              | Permissible Exposure Limit                                |
| <b>RCRA:</b>             | Resource Conservation and Recovery Act                    |
| <b>SARA:</b>             | Superfund Amendments and Reauthorization Act              |
| <b>Title III:</b>        | Emergency Planning and Community Right to Know Act        |
| <b>Section 302:</b>      | Extremely Hazardous Substances                            |
| <b>Section 311:</b>      | MSDS/List of Chemicals and Hazardous Inventory            |
| <b>Section 312:</b>      | Emergency and Hazardous Inventory                         |
| <b>Section 313:</b>      | Toxic Chemicals and Release Reporting                     |
| <b>TLV:</b>              | Threshold Limit Value (from ACGIH)                        |
| <b>TSCA:</b>             | Toxic Substances Control Act                              |

**EFFECTIVE DATE:** 12/31/07  
**REPLACES SHEET DATED:** 04/15/03

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.