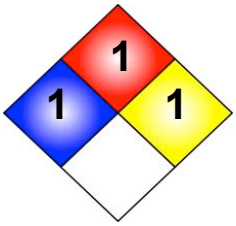
Great Ingot= Great Castings

Safety Data Sheet

NFPA	HMIS	PPE	Transport Symbol
	HEALTH 1 FLAMMABILITY 1 REACTIVITY 1	 Safety Glasses  Gloves	Not Regulated

Issuing Date: 17 July 2013 **Revision Date: 17 July 2013** **SDS Number: 039**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Aluminum Smelting Baghouse Dust
Synonyms: Not Applicable
Product Code(s): Not applicable
Recommended Use: Not applicable
Emergency Telephone Number: 708-757-4200
Manufacturing Locations: 900 E. 14th Street Chicago Heights, IL 60411

2. HAZARDOUS IDENTIFICATION

Health Hazards (Acute and Chronic):

No health hazard or toxicity information exists specifically for this material. Data for major components are given instead. For each component in this material, the percent by weight can be used as a rough guide to the component's likely significance.

Carbon and calcium hydroxide dust may irritate the eyes, mucous membranes, and upper respiratory tract.

Eyes: Dust of this material may cause eye irritation.
Skin: Dust of this material may cause skin or mouth irritation.
Inhalation: Breathing this dust may present potentially significant

health hazards. These may include mucous membrane irritation or lung changes in workers, potentially leading to pulmonary diseases.

Inhalation of finely divided aluminum powder may cause pulmonary fibrosis (aluminosis). Copper fumes may cause metal fume fever with flu-like symptoms.

Ingestion: Ingestion of significant amounts of material is unlikely.

Unusual Chronic Toxicity: None reported.

Signs and Symptoms of Exposure: Irritation of skin or mucous membranes, cough, or difficulty in breathing.

Exposure to dust may cause irritation of skin and mucous membranes, cough, difficulty in breathing and lung changes in workers, potentially leading to pulmonary diseases.

Medical Conditions Generally Aggravated by Exposure: None reported

Emergency and First Aid Procedures

Eyes: If this material contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Skin: If this material contacts the skin, brush or vacuum off excess dust and promptly wash the contaminated skin with soap and water. Skin cuts and abrasion can be treated with standard first aid.

Inhalation: If a person breathes large amounts of this material, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Ingestion: Ingestion of significant amounts of material is unlikely. If large quantities of this material are swallowed, induce vomiting in conscious individual. Get medical attention immediately.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Carbon	7440-44-0	36.0-44.0%
Calcium hydroxide (lime)	1305-62-0	40.0-48.0%
Potassium chloride	7447-40-7	6.2-7.3%
Sodium chloride	7647-14-5	6.2-7.3%
Aluminum oxide (non-fibrous)	1344-28-1	1.6-2.0%
Other metallic oxides	(none)	0.18-0.22%

4. FIRST AID MEASURES

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin Contact: Wash off immediately with plenty of soap and water for at least 15 minutes. If symptoms persist, call a physician.
Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Ingestion: Not an expected route of exposure. Immediate medical attention is not required. Consult a physician if necessary.
Notes to Physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties: Nonflammable.

Flash Point: Not applicable.

Suitable Extinguishing Media: Smother with suitable dry powder.

Unsuitable Extinguishing Media: DO NOT USE WATER, MOIST SAND, OR HALOGENATED EXTINGUISHING AGENTS (HALONS).

Explosion Data
Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: None

Additional Precautions: None

Unusual Fire and Explosion Hazards: Fire or explosion may occur when material is exposed to heat, flames, sparks, chemical reaction, or contact with powerful oxidizers. This material as fume, vapor, and/or dust may be toxic and/or a respiratory irritant. This material can react vigorously with strong oxidizing agents, which can liberate hydrogen gas which may be explosive. Gases produced as a result of hydrolysis (acetylene, ammonia, hydrogen, or methane) are explosive and highly flammable.

Protective Equipment and Precautions for Firefighters: Confine baghouse dust fire, avoid spreading. Fire fighters should wear self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment.

Methods for Containment: Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up: No special precautions for large product fragments. For dust cleanup, use protective equipment. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

Small/Large Spills: Clean up spilled material and place in dry metal containers.

7. HANDLING AND STORAGE

Steps to be Taken if Material is Released or Spilled: If quantities of dust are spilled, remove by vacuuming or wet sweeping to prevent heavy concentrations of airborne dust. Do not use compressed air for cleaning. Cleanup personnel should wear approved respirators and protective clothing. Place all collected material or particulates in a labeled container.

CERCLA Reportable Quantity (RQ): None established

Waste Disposal Method: Waste can be disposed of in a landfill. In the United States, this product must be disposed of in accordance with applicable federal, state and local solid waste labeling, shipping and disposal laws and regulations.

RCRA Classification: None established
RCRA Hazardous Waste Number: None established

Precautions to be taken in Handling and Storing: Use good housekeeping practices to prevent accumulations of dust and keep airborne dust concentrations at a minimum. Avoid breathing dust or fumes.

Store material in a dry area away from incompatible materials. Keep dust away from sources of ignition.

Other Precautions: It is illegal per 49 CFR 173. 173 to ship hot or wet aluminum dross (baghouse dust may be considered dross).
SARA Title III Threshold Planning Quantity: None established

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Employees may wear NIOSH or MSHA approved respirators as specified by an Industrial Hygienist or qualified Safety Engineer for protection against airborne dusts of fumes.

Ventilation: Local exhaust ventilation is required when dust or fumes are generated. Use general and local exhaust ventilation to keep airborne concentrations of dust or fume below the OSHA PEL and TWA shown in Section 11.

Protective Gloves: Advisable to avoid cuts and skin abrasions. Gloves and barrier creams may be necessary to prevent skin sensitization and dermatitis.

Eye Protection: Approved safety glasses or goggles should be worn when exposed to dusty material. Safety eyewash stations should be provided near work areas.

Other Protective Clothing or Equipment: Full protective clothing should be worn by workers exposed to heavy concentrations of dust.

Work/Hygiene Practices: Do not eat, drink, or use tobacco products in work areas. Wash thoroughly after skin contact and before eating, drinking, use of tobacco products, or using restrooms. Take a shower and change clothes at the end of the shift. All protective and contaminated clothing must be left at the plant. Launder all other work clothing separately from other household laundry.

Pre-employment medical evaluations should be provided. Attention should be directed to skin, eyes, respiratory tract, blood, kidneys, pulmonary function, and neurological health. Chest X-rays should be included is symptoms are present.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black to gray

Odor Threshold: Odorless **Physical State:** Dust

pH: No info available **Flash Point:** >180ºF

Autoignition Temp: No info available **Decomp Temp:** No info available

Boiling Point: N/A **Melting Point (sublimes):** 6,543-6,623ºF (2,652-3,697ºC)

Flammability Limits: Nonflammable **Explosion Limits:** No info available

Solubility in Water (20ºC): 46-63% depending on chloride content

Evaporation Rate (Butyl acetate=1): N/A

Vapor Pressure (@ 20ºC): -0 mm Hg **Vapor Density (Air=1):** N/A

Specific Gravity (Aluminum Oxide): 1.8-2.1 **VOC Content:** N/A

Like other metallic dust and fine powder, baghouse dust may burn under some conditions. For fires involving baghouse dust, use dry sand or Class D extinguishing agents approved for this use or ring burning area with dry sand and allow fire to burn itself out. .

10. STABILITY AND REACTIVITY

Stability: Stable at room temperature.

Incompatible Products: Contact with water may cause hydrolysis which may generate acetylene, ammonia, hydrogen, and/or methane gases. Reaction with mineral acids, water-soluble cutting oils, dilute hydrochloric acid (HCL), sulfuric acid, potassium hydroxide (KOH) or sodium hydroxide (NaOH) may liberate hydrogen. Avoid contact with acids, bases, and oxidizing agents.

Carbon mixed with ammonium nitrate may explode when heated. Finely divided carbon combined with finely divided bromates, chlorates, or iodates of barium, calcium, magnesium, potassium, sodium, or zinc will explode with heat, percussion, and sometimes light friction. Iodine pentoxide reacts explosively when warmed with carbon. Pulverized carbon reacts violently with nitric acid. Sodium sulfide mixed with carbon is susceptible to spontaneous heating. Zince nitrate explodes when sprinkled on hot carbon.

Maleic anhydride decomposes explosively in the presence of calcium hydroxide. Calcium hydroxide in the presence of water reacts with the nitroparaffins (nitromethane, nitroethane, nitropropane) to form salts with inorganic bases. The dry salts are explosive. Phosphorus boiled with calcium hydroxide yields mixed phosphines which may ignite spontaneously in air.

Chlorine trifluorine reacts violently, producing flame, with aluminum oxide. Ethylene oxide may polymerize violently when in contact with aluminum oxide.

Sodium chloride and potassium chloride react violently with bromide trifluoride or lithium

Hazardous Decomposition or By-Products: Evolved acetylene, ammonia, hydrogen, and/or methane gases in confined areas may be an explosive hazard (see directly above).

Hazardous Polymerization: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: The product itself has not been tested.

Chronic Toxicity: Aluminum metal and alloys have a low order of chronic toxicity. Overexposure to Manganese oxide fumes may cause metal fume fever. It is unlikely Manganism will develop if exposure limits are maintained below the limits cited in Section 8. Symptoms of Manganism develop very gradually and can include headache, irritability, insomnia, and muscle cramps. Chronic exposure to inert dust of silicon can cause increased airways resistance and contribute to chronic bronchitis.

Carcinogenicity: The following metals and metal compounds are considered carcinogenic by the International Agency for Research on Cancer (IARC) and the National Toxicology program (NTP) as carcinogens: lead, beryllium, cadmium, hexavalent chromium, and nickel.

Sensitization: Some individuals may be allergic to metals or metal salts. Sensitization to metals will generally take the form of a skin rash at the site of contact. Once an individual becomes sensitized, they should not have any further contact with the causative agent, since any exposure, however small, will trigger the symptoms.

Mutagenic Effects: None Known

Reproductive Toxicity: None Known

Developmental Toxicity: None Known

Target Organ Effects: No specific effects other than those listed under Chronic Toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity: The environmental impact of this product has not been fully investigated.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Dispose of in accordance with all applicable environmental laws and regulations.

Contaminated Packaging: Dispose of in accordance with applicable local regulations.

14. TRANSPORT INFORMATION

DOT
U.S. Department of Transportation Not Regulated

TDG
Transport Dangerous Goods (Canada) Not Regulated

MEX
Transport Dangerous Goods (Mexico) Not Regulated

ICAO
International Civil Aviation Organization Not Regulated

IATA
International Air Transport Association Not Regulated

IMDG/IMO
International Maritime Dangerous Goods Code/ International Maritime Organization Not Regulated

RID
International Transport of Dangerous Goods by Rail Not Regulated

ADR
International Transport of Dangerous Goods by Rail Not Regulated

AND
International Transport of Dangerous Goods by Inland Waterway Not Regulated

15. REGULATORY INFORMATION

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

Chemical Name	CAS-No	Weight %
Aluminum oxide (fibrous forms only)	1344-28-1	-

16. OTHER INFORMATION

Issuing Date: July 17, 2013

Revision Date: July 17, 2013

Revision Note: Not applicable

Disclaimer: Information herein is given in good faith as authoritative and valid; however, no warranty, express or implied, can be made.

The condition or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this reason, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.

END OF SAFETY DATA SHEET