Georgia-Pacific

MATERIAL SAFETY DATA SHEET

Effective Date: 03/01/2002
Supersedes Date: NEW

*** Section 1 – Chemical Product and Company Identification ***

Product Name: Hydrated Fluidized Bed Combustor Ash

Synonyms: Aggregate Ash, Bottom Ash, C(F)BC Ash, Class C Fly Ash, Fly Ash

Product Use: Road and parking lot repair, roadbed material reuse, construction applications, possible cement/asphalt substitution

Manufacturer Information
Georgia-Pacific Corporation
133 Peachtree Street, N. E.
Atlanta, GA 30303

Phone: (404)652-5119
Emergency # 1-800-424-9300 (Chemtrec)

*** Section 2 – Composition / Information on Ingredients ***

CAS #	Component	Percent	OSHA PEL	ACGIH TLV
7778-18-9	Gypsum (calcium sulfate)	60-70%	15 mg/m^3 Total Dust 5 mg/m^3 Respirable Dust	*10 mg/m^3 Total Dust
1317-65-3	Calcium Carbonate	20-25%	15 mg/m^3 Total Dust 5 mg/m^3 Respirable Dust	*10 mg/m^3 Total Dust
1305-62-0	Calcium Hydroxide	10-15%	15 mg/m^3 Total Dust 5 mg/m^3 Respirable Dust	5 mg/m^3

Gypsum contains naturally occurring crystalline silica (quartz). Due to its natural occurrence, the exact percentage of crystalline silica is unknown. Both the OSHA PEL and ACGIH TLV are 0.1 mg/m^3 for respirable quartz dust.

* The value is for particulate matter containing no asbestos and <1% crystalline silica

*** Section 3 - Hazards Identification ***

Emergency Overview

Cutting, sawing, sanding or otherwise machining this product may generate dust. Dust may cause upper respiratory tract, lung, eye, nasal and skin irritation.

DESCRIPTION:

Odorless/tasteless (gray or tan) solid material, which sets to hard mass when, mixed with water.

Potential Health Effects: Inhalation

Inhalation of dust generated from cutting, sawing, sanding or otherwise machining this product could irritate the nasal and throat tissues.

Potential Health Effects: Eyes

Dust can cause mechanical eye irritation.

Potential Health Effects: Skin

Handling may cause dry skin. Absorption is not considered a probable route of exposure.

Potential Health Effects: Ingestion

Not applicable under normal conditions of use. May result in obstruction and temporary irritation of the digestive tract.

Medical Conditions Aggravated

Exposure may aggravate pre-existing skin, eye, and respiratory disorders.

Additional Information:

This product contains crystalline silica. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there is a factor of individuals susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of time (usually years) of exposure. Exposure associated with most uses of this product should be well below the permissible exposure limits; however, employers should perform workplace testing to determine actual exposure levels.

HMIS Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4

*** Section 4 – First Aid Measures ***

First Aid: Inhalation

Remove to fresh air immediately. If persistent irritation, severe coughing or breathing difficulty occurs, get medical attention.

First Aid: Eyes

Immediately rinse with water. Remove contact lenses. Hold eyelids apart and flush eyes with water for at least 15 minutes. Get immediate medical attention.

First Aid: Skin

Immediately remove contaminated clothing. Wash skin thoroughly with soap and water. Get immediate medical attention. Launder contaminated clothing before reuse or dispose of properly.

First Aid: Ingestion

Not applicable under normal conditions of use.

First Aid: Notes to Physician

Exposure may aggravate pre-existing eye, skin, and respiratory disorders.

* * * Section 5 – Fire Fighting Measures * * *

Flash Point: Not Applicable
Upper Flammable Limit (UFL): Not Determined
Auto Ignition: Not Determined
Method Used: Not Determined
Lower Flammable Limit (LFL): Not Determined
Flammability Classification: Not Determined

General Fire Hazards
No unusual fire and explosion hazards.

Extinguishing Media
Water spray, fog or regular foam.

Fire Fighting Equipment/Instructions
Keep unnecessary people away; isolate hazard area and deny entry. Remove containers exposed to fire if possible; otherwise cool them from the side with water spray. Use appropriate fire fighting equipment and procedures.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0
(Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe)

* * * Section 6 – Accidental Release Measures * * *

Containment Procedures
Dust or vacuum dust for recovery or disposal.

Clean-Up Procedures
Clean up and disposal activities should be accomplished in a manner to minimize creation of dust.

Special Procedures
The use of monitoring equipment is recommended to determine actual exposure levels.

* * * Section 7 - Handling and Storage * * *

Handling Procedures
Use wet methods, if appropriate, to reduce the generation of dust.

* * * Section 8 – Exposure Controls / Personal Protection * * *

Exposure Guidelines
Individual component exposure limits can be found in Section 2: Composition/Information on Ingredients.

Engineering Controls
Provide local and general exhaust ventilation to keep airborne concentrations below exposure limits for dust exposure. Use wet methods, if appropriate, to reduce the generation of dust.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields. Ensure compliance with OSHA's PPE standards (29 CFR 1910.132 and 133) for eye and face protection.

Personal Protective Equipment: Skin

Protective gloves may be desirable to prevent drying or irritation of hands. Barrier creams may also be used to reduce skin contact and irritation. Ensure compliance with OSHA's PPE standards 29 CFR 1910.132 (general) and 138 (hand protection).

Personal Protective Equipment: Respiratory

Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2). A written respiratory protection program including provisions for medical certification, training, fit-testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage, must be implemented when respirators are used. Consult the NIOSH respirator decision logic found in Publication No. 87-116, or ANSI Z88.2. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

*** Section 9 – Physical & Chemical Properties ***

Appearance:	Gray or Tan	**Odor:**	Odorless
Physical State:	Solid	**PH:**	Not Applicable
Vapor Pressure:	Not Applicable	**Vapor Density:**	Not Determined
Boiling Point:	Not Applicable	**Melting Point:**	Not Applicable
Solubility (H_20)	Insoluble	**Specific Gravity:**	Not Determined
Molecular Weight:	Not Determined		

*** Section 10 – Chemical Stability & Reactivity Information ***

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Keep away from sparks, open flame, ignition sources or high heat.

Incompatibility

Incompatible with acids, aluminum, ammonium salts and fluorine.

Hazardous Decomposition

When heated to decomposition it is possible that acrid smoke and irritating fumes are emitted.

Hazardous Polymerization

Hazardous polymerization has not been reported to occur under normal temperatures and pressures.

* * * Section 11 – Toxicological Information * * *

Acute and Chronic Toxicity

A: General Product Information

Crystalline Silica: Inhaled crystalline silica in the form of quartz or cristobalite from occupational sources is classified by the International Agency for Research on Cancer (IARC) as carcinogenic to humans (Group 1A). The National Toxicology Program (NTP) classifies respirable crystalline silica as a known human carcinogen. Crystalline silica is not considered to be a human carcinogen by OSHA.

Carcinogenicity

A: General Product Information

No product information found for Aggregate Ash. Information was found on the individual components listed in Section 2 – Composition / Information on Ingredients

B: Component Carcinogenicity

Cystalline Silica is listed as a carcinogen by ACGIH, IARC, NIOSH or NTP.

* * * Section 12 – Ecological Information * * *

Hydrated Fluidized Bed Combustor Ash is a residual from the coal/petroleum coke-fire generating process at the Savannah River Mill (Rincon, GA). No ecological effects have been identified.

* * * Section 13 – Disposal Considerations * * *

US EPA Waste Number & Descriptions

A: General Product Information

This product, if discarded, as supplied, would not be a considered a hazardous waste. If processing, use, or contamination alters the material, the waste must be tested using methods described in 40 CFR 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

Not Applicable

Disposal Instructions

Do not flush into public or off-site accessed sewers or surface waters. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

*** Section 14 – Transportation Information ***

US DOT Information

Not Regulated Under U.S. DOT

*** Section 15 – Regulatory Information ***

US Federal Regulations

A: General Product Information

No information available

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4):

Acute Health: **Chronic Health:** **Fire:** **Pressure:** **Reactive:** o

State Regulations

A: General Product Information

No information available

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA	RI
Gypsum (Calcium Sulfate)	7778-18-9	X			X			
Calcium Carbonate	1317-65-3				X			X
Calcium Hydroxide	1305-62-0	X	X		X			X

California Prop 65:

Airborne particles of respirable size of crystalline silica are known to the State of California to cause cancer.

Other Regulations

A: Component Analysis - Inventory

	CAS #	TSCA	DSL
Gypsum (Calcium Sulfate)	7778-18-9	X	X
Calcium Carbonate	1317-65-3	X	X
Calcium Hydroxide	1305-62-0	X	X

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

	CAS #	Minimum Concentration
Calcium Hydroxide	1305-62-0	1%;English Item 302;French Item 991

* * * Section 16 - Other Information * * *

Other Information

IMPORTANT: The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Georgia-Pacific and its subsidiaries make no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein. The implied warranties of merchantability and fitness for a particular purposes are specifically excluded. Georgia-Pacific and its subsidiaries will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists
C = Ceiling Limit
CAS = Chemical Abstract Services Number
CFR = Code of Federal Regulations
DSL = Domestic Substance List
EPA = Environmental Protection Agency
HEPA = High Efficiency Particulate Air
HMIS = Hazardous Material Identification System
IARC = International Agency for Research on Cancer
NA = Not Available or Not Applicable
NFPA = National Fire Protection Association
NIOSH = National Institute for Occupational Safety and Health
NJTSR = New Jersey Trade Secret Registry
NSL = Non-Domestic Substance List
NTP = National Toxicology Program
OSHA = Occupational Safety and Health Administration
PPE = Personal Protective Equipment
STEL = Short term exposure limit
TLV = Threshold Limit Value
TSCA = Toxic Substance Control Act
TWA = Time Weighted Average
WHIMS = Workplace Hazardous Materials Information System

This is the end of MSDS GPSRM-017 (Hydrated Fluidized Bed Combustor Ash)