

SDS NO:

DFC102

DATE PREPARED: 05/19/15

CURRENT DATE: 05/19/15

SECTION 1: Identification

Product Identifier:

Name of Product: Bone Ash Powder (Premium and Regular), Cupels,
Other Means of Identification: Phosphate Salt
Recommended Use: Fire Assay

Manufacturer/Supplier: DFC Ceramics, LLC
515 South 9th Street
Canon City, CO 81212
Telephone General: (719) 275-7525

Emergency Telephone: (800) 424-9300 – CHEMTREC

SECTION 2: Hazard(s) Identification

EMERGENCY OVERVIEW

Caution

Components of these products are considered to be a nuisance, however, dust from these products generated by cutting or sanding may aggravate existing chronic lung conditions such as bronchitis, emphysema and asthma.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

Classification: Not Classified
OSHA HCS 2012

Label Elements:

GHS-US LABELING

HAZARD PICTOGRAMS (GHS-US) Not applicable

Signal Word (GHS-US): Not applicable

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Hazard Statements (GHS-US):

Not applicable

Precautionary Statements (GHS-US):

P280: Wear protective gloves, clothing, goggles, and respirator if cleaning up dust or creating dust from product during use.

P501: Dispose of contents/container in accordance with local, regional, national, and international regulation listed in section 13 of this document.

Response (GHS-US):

Not applicable

Storage/Disposal (GHS-US): Store in original factory container in a dry area. Keep container closed when not in use. Avoid creating airborne dust. Follow routine housekeeping procedures. Vacuum only with HEPA filtered equipment. If sweeping is necessary, use a dust suppressant and place material in closed containers. **Do not use compressed air for clean-up.**

Other Hazards:

Not available

Unknown Acute Toxicity (GHS-US):

Not available

SECTION 3: Composition/Information on Ingredients

Substances:

NAME	PRODUCT IDENTIFIER (CAS #)	% BY WEIGHT	OSHA PEL	ACGIH TLV
Calcium Phosphate	1306-06-5	Up to 100	Not Established	Not Established
Calcium Aluminate	12042-68-1	Up to 20	10 mg/m ³ (total); 5 mg/m ³ (respirable)	Not Established
Alumina Oxide	1344-28-1	Up to 5	15 mg/m ³ (total); 5 mg/m ³ (respirable)	10 mg/m ³

(See Section 8 " Exposure Controls / Personal Protection: for exposure guidelines.)

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SECTION 4: First-aid Measures

Description of First Aid Measures

Inhalation:	Remove affected person to dust free location. See Section 8 to reduce or eliminate exposure.
Eye Irritation:	Flush with large amounts of water for at least 15 minutes. Do not rub eyes.
Skin Irritation:	Wash affected area gently with soap and water. Skin cream or lotion after washing may be helpful.
Ingestion:	Do not induce vomiting; drink plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms/Injuries:	All symptoms should be temporary and should subside with treatment.
Symptoms/Injuries after inhalation:	Chronic respiratory conditions may be aggravated.
Symptoms/Injuries after eye contact:	Symptoms should be temporary, should subside with treatment, and may include redness, irritation, or laceration.
Symptoms/Injuries after ingestion:	Not applicable

-If symptoms persist, seek medical attention.

Indication of any immediate medical attention and special treatment needed

-If symptoms persist, seek medical attention.

***If medical advice is needed, have product container or label at hand.**

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SECTION 5: Fire-fighting Measures

Extinguishing Media

Suitable extinguishing media: Use extinguishing media suitable for type of surrounding fire.

Special Hazards Arising From the Substance or Mixture

Fire hazard: None

Explosion hazard: None

Reactivity: None

Advice for Firefighters

Firefighting instructions: Product is not flammable, and fires should be treated respective of what caused them and what is in the surrounding area.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Spill/Leak Procedures: Avoid creating airborne dust. Follow routine housekeeping procedures. Vacuum only with HEPA filtered equipment. If sweeping is necessary, use a dust suppressant and place material in closed containers. Avoid clean-up procedures that could result in water pollution. **Do not use compressed air for clean-up.**

For Non-Emergency Personnel

Protective equipment: Gloves, goggles, and respirator

Emergency procedures: Not applicable

For Emergency Responders

Protective equipment: Gloves, goggles, and respirator

Emergency procedures: Not applicable

Methods and Material for Containment and Cleaning Up

For containment: See **Spill/ Leak Procedures** above

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Methods for cleaning up: See **Spill/ Leak Procedures** above

Reference to Other Sections

See heading 8, **Exposure controls and Personal Protection**

SECTION 7: Handling and Storage

Precautions for Safe Handling

Additional hazards when processed:

No specific handling procedures are required.

Precautions for safe handling:

Frequently clean the work area with HEPA filtered vacuum or wet seeping to minimize the accumulation of dust. **Do not use compressed air for clean-up.**

Hygiene measures:

Wash exposed skin with mild soap and water after exposure.

Conditions for Safe Storage, Including Any Incompatibilities

Storage conditions:

This product is stable under all storage conditions. Store in the original factory container, in a dry area. Keep container closed when not in use.

Incompatible products:

Not applicable

Storage area:

Store in dry area in original container. Keep container closed when not in use.

Special rules on packaging:

Do not reuse product packaging as it may contain residue.

Specific End Use(s):

For fire assay purposes.

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SECTION 8: Exposure Controls/Personal Protection

Caution

Components of these products are considered to be a nuisance, however, dust from these products generated by cutting or sanding may aggravate existing chronic lung conditions such as bronchitis, emphysema and asthma.

Control Parameters

NAME	PRODUCT IDENTIFIER (CAS #)	OSHA PEL	ACGIH TLV
Calcium Phosphate	1306-06-5	Not Established	Not Established
Calcium Aluminate	12042-68-1	10 mg/m ³ (total); 5 mg/m ³ (respirable)	Not Established
Alumina Oxide	1344-28-1	15 mg/m ³ (total); 5 mg/m ³ (respirable)	10 mg/m ³

Exposure Controls

Appropriate engineering controls:

Recommended Respiratory Protection When Handling Bone Ash Products:

***As produced and after service**

Concentration	Respirator
Up to PEL	No specific recommendation. A disposable N95 rated particulate respirator if desired.
1 to 10 times PEL	Half-mask, air-purifying respirator with high efficiency particulate air (HEPA) or P10 rated filter cartridges.
10 to 50 times PEL	Full face mask air-purifying respirator with HEPA or P100 rated filter cartridges or powered air-purifying respirator (PAPR) with HEPA or P100 rated filter cartridges.
50 times PEL	Full face mask positive pressure supplied air respirator.

***Note: For unknown concentration or working with other contaminants, consult and industrial hygienist for air monitoring and respirator selection.**

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Personal protective equipment:

Hand protection:

Gloves may be worn, if desired, and respirator according to table above.

Eye protection:

Goggles/safety glasses with side shields should be worn.

Skin and body protection:

Special equipment not required.

Respiratory protection:

If respirators are selected, use NIOSH/MSHA approved respirators, in compliance with OSHA Respiratory Protection Standard 29 CFR 1910.134 and 29 CFR 1926.103, for the particular hazard or airborne concentrations to be encountered in the work environment.

Thermal hazard protection:

Not applicable

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical state	: Phosphate salts
Appearance	: Pressed shape or fine, free-flowing powder
Color	: White
Odor	: None
Odor Threshold	: Not applicable
pH	: Not applicable
Relative evaporation rate	: Not applicable
Melting point	: 2750°
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
Flammability (solid, gas)	: Not applicable
Vapor pressure	: Not applicable
Relative density at 20 * C	: Not applicable
Relative density	: Not applicable

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Density	: Not applicable
Solubility	: Practically insoluble in water
Log Pow	: Not applicable
Log Kow	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Not applicable
Oxidizing properties	: Not applicable
Explosive limits	: Not applicable

Other Information

SECTION 10: Stability and Reactivity

Reactivity:	Hazardous reactions will not occur.
Chemical Incompatibilities:	Unknown
Hazardous polymerization:	Hazardous polymerization will not occur.
Chemical Stability:	Stable under normal usage conditions.
Possibility of Hazardous Reactions:	Not applicable
Condition to Avoid:	
Chemical incompatibilities:	Unknown
Incompatible Materials:	Unknown
Hazardous Decomposition Products:	Not applicable

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SECTION 11: Toxicological Information

Information on Toxicological Effects

Acute toxicity:	Not Applicable
Skin corrosion/irritation:	Not Applicable
Serious eye damage/irritation:	Not Applicable
Respiratory or skin sensitization:	Not Applicable
Germ cell mutagenicity:	Not Applicable
Carcinogenicity:	Not Applicable
Reproductive toxicity:	Not available
Specific target organ toxicity (single exposure):	Not available
Specific target organ (repeated exposure):	Not available

Aspiration hazard: Not available

Symptoms/injuries after inhalation: Chronic respiratory conditions may be aggravated.
Symptoms/injuries after eye contact: Symptoms should be temporary, should subside with treatment, and may include redness, irritation, or irritation from laceration.

Symptoms/injuries after ingestion: Do not induce vomiting; drink plenty of water.

Epidemiology:

*The following information presents both human experience and the results of scientific experiments used by qualified experts to assess the effects of Bone Ash on the health of exposed individuals and to support the Precautionary Statements and Occupational Control Procedures recommended in this document. To avoid misunderstanding, the data provided in this section should be interpreted by individuals trained in evaluation of this type of information.

Inhalation and dermal contact are expected to be the primary routes of occupational exposure. Occupational exposure to this material has not been reported to cause significant adverse human health effects. On the basis of animal studies, exposure is not expected to produce adverse human health effects following normal workplace exposure.

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Toxicology:

Oral LD₅₀ (Rat)	≥7,940 mg/kg	Practically Nontoxic
Dermal LD₅₀ (Rabbit)	≥7,940 mg/kg	Practically Nontoxic
Eye Irritation (Rabbit)	(FSHA) Score=1.5/440.0	Practically Nontoxic
Skin Irritation (Rabbit)	(FSHA) Score=0.0/8.0	Practically Nonirritating

SECTION 12: Ecological Information (Non-Mandatory)

Adverse effects of this material on the environment are not anticipated.

SECTION 13: Disposal Considerations (Non-Mandatory)

Waste Management

To prevent waste materials becoming airborne during waste storage, transportation and disposal, a covered container or plastic bagging is recommended. Comply with federal, state and local regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in the SDS incomplete, inaccurate, or otherwise inappropriate.

Method of disposal: Landfill

Disposal

If discarded in its purchased form, this product would not be a hazardous waste under Federal regulations (40 CFR 261) either by listing or by characteristic. Under Federal regulations, it is the waste generator's responsibility to properly characterize a waste material, to determine if it is a hazardous waste. Check local, regional, state, or provincial regulations to identify all applicable disposal requirements.

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SECTION 14: Transport Information (Non-Mandatory)

U.S. Department of Transportation (DOT)

Hazard Class:	Not Regulated
Labels:	Not Applicable
Placards:	Not Applicable
United Nations (UN) Number:	Not Applicable
North America (NA) Number:	Not Applicable
Bill of Lading:	Product Name

SECTION 15: Regulatory Information (Non-Mandatory)

SARA Title III: This product does not contain any substances reportable under Sections 302, 304, 313 (40 CFR 372).
Sections 311 and 312 apply.

OSHA: Comply with Hazard Communication Standards 29 CFR 1910.1200 and 29 CFR 1926.59 and Respiratory Protection Standard 29 CFR 1910.134 and 29 CFR 1926.103.

TSCA: All substances contained in this product are listed in the TSCA Chemical Inventory section 8b.

SECTION 16: Other Information,

Indication of changes : **05/19/2015**

Other information: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.