Safety Data Sheet

For compliance with OSHA's 29 CFR 19101200 and Bill No. 70 WHMIS Hazard Communication Standards

Section 1: COMPANY AND PRODUCT IDENTIFICATION

Product Name:	**Trade Name:**	**Chemical Name:**
Ball Clay CAS# 1332-58-7 EC# 310-194-1	Various Gleason Clay Ball Clay Products	Hydrous Aluminum Silicate Al2O3: SiO2+ Trace Minerals (Less than 5%)

Company Name and Address:

Gleason Clay Company, LLC
P.O. Box 111, 5110 Old SR22
Gleason, TN 38229-0111

Telephone Number: (731) 648-5596
Facsimile Number: (731) 648-5990
E-Mail: kbougher@gleasonclaycompany.com
Website: http://www.gleasonclaycompany.com

Recommended Use:
Used in ceramic body and glazes; as a general purpose filler in adhesives, rubber; refractories; electrode coatings.

SECTION 2: HAZARDS IDENTIFICATION

Health Hazard Warning:
Ball clays contain crystalline quartz, some of which is respirable, and this element may cause delayed respiratory disease if inhaled over a prolonged period of time. Avoid breathing dust. Use a NIOSH/MSHA approved respirator where TLV for crystalline quartz is exceeded. IARC Monograph Volume 68, 1997 concludes that crystalline quartz causes cancer in humans.

The National Toxicology Program (NTP), in the 11th Annual Report on Carcinogens, 2005, has included respirable crystalline silica on its list of substances that are "reasonably anticipated to be carcinogens".

NIOSH has identified crystalline silica as a potential occupational carcinogen using the OSHA classification system outlined in 29 CFR 1990.103.

Ball clays contain titanium dioxide. NIOSH has identified titanium dioxide as a potential occupational carcinogen.
GHS-US labelling Hazard pictograms (GHS-US) :


GHS07 GHS08
Signal word (GHS-US) : Danger
Hazard statements (GHS-US) :
H315 - Causes skin irritation
H320 - Causes eye irritation
H350 - May cause cancer (Inhalation)
Precautionary statements (GHS-US) :
P280 - Wear eye protection, Dust respirator, protective gloves
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention
P260 - Do not breathe dust

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component	Weight Percent (Typical)	CAS Number	EC Number
Kaolinite	> 60	1318-74-7	215-286-4
Crystalline Silica (Non-combined quartz)	5-30	14808-60-7	238-878-4
Titanium Dioxide	< 3	13463-67-7	236-675-5

Section 4: FIRST AID MEASURES

Route of Entry and First Aid

- Inhalation: Dust may irritate respiratory system. Move away from contaminated areas and consult a physician if breathing difficulties occur. Individuals with known respiratory disease or difficulties should avoid dust.
- Eye Contact: Minor dust quantities may irritate eye tissue. Flush eye(s) thoroughly with water and consult physician if symptoms persist.
- Skin Contact: No adverse effects are suspected to exist. Wash contaminated area with water and bath soap (optional).
- Ingestion: No negative effects are known to exist for incidental quantities of clay ingested into the stomach. For suspected large quantities, consult physician for advice.

Acute and delayed symptoms:
Eye irritation and difficulty breathing may occur acutely or delayed.

Immediate Medical attention:
Contact a physician immediately if there is difficulty breathing, or severe eye irritation.

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Use extinguishing media that are suitable for the surrounding combustible materials such as product packaging, as the clay product itself is not combustible.

Specific hazards arising from the chemical (Hazards from Fire):
Under fire conditions, this product may emit toxic and/or irritating fumes.

Special Protective equipment and precautions for Fire Fighters:
Fire fighters should wear appropriate PPE to prevent exposure to fumes.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, emergency procedures:
Use precautions and protective equipment to avoid dust inhalation, eye contact, and skin contact.

Methods and Material for containment and clean up:

- If inadvertently spilled or leaked, reclaim product for intended use.
- Increase ventilation and wear sufficient respiratory protection during sweeping / transportation to appropriate container.
- If the spilled product needs disposal, consult regulatory authorities. Under RCRA (40 CFR Part 261), ball clay is not considered a hazardous waste.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:
Use in well ventilated areas. Keep containers sealed when not in use to prevent the buildup of dust in the work environment. Avoid inhalation of dust, as well as skin and eye contact. Maintain proper personal hygiene.

Conditions for Safe Storage:
Store in cool, dry, well-ventilated areas away from moisture. Keep containers tightly closed.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Permissible exposure limit:

- Use NIOSH/OSHA approved dust masks if exposure exceeds TLV or PEL limits (see below).

Exposure	Limit	
Respirable Crystalline Quartz	ACGIH-TLV:	0.025 mg/m^3
	OSHA-PEL:	0.1 mg/m^3
	NIOSH:	0.05 mg/m^3
Titanium Dioxide	ACGIH-TLV:	10 mg/m^3
	OSHA-PEL:	15 mg/m^3

Appropriate engineering controls:

- Use local exhaust ventilation in areas subject to dust generation.

Individual protection measures:

- Use NIOSH/OSHA approved safety goggles when handling the product in dust generating processes.
- In wet spraying applications, use NIOSH/OSHA approved dust/mist respirator.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid lump or powder form possessing shades of brown, cream white or gray coloration.

pH: 4.0 – 8.0

Odor: Earth-like especially when containing appreciable moisture content.

Odor Threshold: Not available

Specific Gravity: 2.40 - 2.65

Melting Point: > 1500° C (Degrees Centigrade)

Freezing Point: Not available

Initial Boiling Point and Range: Not available

Flash Point: Not available

Evaporation Rate: Not available

Upper/lower Flammability or explosive limits: Non-combustible solid

Vapor Pressure: Not available

Vapor Density: Not available

Relative Density: Not available

Solubility in Water: Insoluble

Partition Coefficient N-Octanol/Water : N/A

Auto-Ignition Temperature: Not available

Decomposition Temperature: Not available

Viscosity: Not available

Section 10: STABILITY AND REACTIVITY

Reactivity: Stable
Chemical Stability: Stable
Possibility of hazardous reactions: Non-existent

Conditions to avoid: None
Incompatible Materials: None known to exist
Hazardous Decomposition products: None..

Section 11: TOXICOLOGICAL INFORMATION

Toxicology Information:
This material contains crystalline silica.

Inhalation:
Harmful: danger of serious damage to health from prolonged exposure through inhalation. Immediate effects include irritation to nose, throat, and respiratory system.

Ingestion:
Ingestion of large amounts of the product could irritate the gastric tract.

Skin:
Skin contact may cause dryness of skin which could lead to irritation.

Eye:
Eye contact may cause irritation, and could cause minor abrasions.

Chronic Effects: Danger of serious damage to health by prolonged exposure from inhalation. Crystalline Silica can cause silicosis or other lung diseases from prolonged exposure. California Proposition 65: Ball clay contains crystalline quartz, some of which is respirable, and trace amounts of 2,3,7,8 TCDD (a dioxin) on a PPT (parts per trillion) basis have been detected. These trace amounts are not believed to be a health risk, but NIOSH/OSHA approved personal protective equipment (PPE) and exposure controls (Section 8) are recommended.

Carcinogenicity:
These chemicals are recognized by the state of California to be carcinogenic elements. IARC Monograph Volume 69 states that 2,3,7,8 TCDD (a dioxin) is a carcinogen to humans.

Toxic Substances Control Act: The known and reported components of ball clay are included on the EPA TSCA Inventory.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available

Persistence and Degradability: Not available

Bioaccumulative Potential: Not available

Mobility: Not available

Section 13: DISPOSAL CONSIDERATIONS

Dispose of this material should be done in accordance with local and national regulations.

Section 14: TRANSPORT INFORMATION

Ball Clay is non-hazardous under DOT regulations.

Section 15: REGULATORY INFORMATION

- California Proposition 65: Ball clay contains crystalline quartz, some of which is respirable, and trace amounts of 2,3,7,8 TCDD (a dioxin) on a PPT (parts per trillion) basis have been detected. These trace amounts are not believed to be a health risk, but NIOSH/OSHA approved personal protective equipment (PPE) and exposure controls (Section 8) are recommended.
- These chemicals are recognized by the state of California to be carcinogenic elements. IARC Monograph Volume 69 states that 2,3,7,8 TCDD (a dioxin) is a carcinogen to humans.
- Toxic Substances Control Act: The known and reported components of ball clay are included on the EPA TSCA Inventory.
- European Commission **R**egistration, **E**valuation, **A**uthorization of **Ch**emicals (REACH): The known and reported components of ball clay are included on the European Chemical Agency (ECHA) pre-registration substance list.

Section 16: OTHER INFORMATION

This Material Safety Data Sheet is accurate according to believed reliable sources of information. Old Hickory Clay Company, Inc. assumes no responsibility for warranties expressed or applied and assumes no liability in connection with the use of this information. The information and data herein must be determined by the user to be in accordance with federal, state, and local laws and regulations including regions outside the jurisdiction of the USA, applies only to this product and does not relate in combination with other materials or in any process. The reported information is subject to change without notice.

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