Safety Data Sheet

For compliance with OSHA's 29 CFR 1910.1200 and Bill No. 70 WHMIS Hazard Communication Standards

Section 1: COMPANY AND PRODUCT IDENTIFICATION

Product Name:
Ball Clay
CAS# 1332-58-7 EC# 310-194-1

Chemical Name:
Hydrous Aluminum Silicate
Al_2O_3: SiO_2+ Trace Minerals
(Less than 5%)

Company Name and Address:

Old Hickory Clay Company Inc.
P.O. Box 66, 962 State Route 1241
Hickory, KY 42051-0066

Telephone Number: (270) 247-3042
Facsimile Number: (270) 247-1842
Emergency Contact Number: (270) 247-3042
Hours of Operation: 8:00 am – 4:00 pm Central
E-Mail: orders@oldhickoryclay.com
Website: http://www.oldhickoryclay.com

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

a. Restrictions for use: NONE

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.
Ball clays contain titanium dioxide.

Hazard Categories:

Specific Organ Toxicity (Repeated Exposure by Inhalation):
This product mixture is classified as a Specific Organ Toxicant Category 1 based on mixtures containing silica by OSHA's HCS/HazCom (Hazard Communication Standard) 1910.1200 Appendix A: Health Hazard Criteria.

Carcinogenicity:
This product mixture is classified as a Potential Carcinogen Category 1B based on mixtures containing silica and titanium dioxide by OSHA's HCS/HazCom (Hazard Communication Standard) 1910.1200 Appendix A: Health Hazard Criteria.

Labeling Elements for Product as Required using CLP Regulation (EC) No 1272/2008 and Annex 1 of GHS (Globally Harmonized System) Revision 10, 2023.

Hazard Pictograms:
Health Hazard

GHS08

Signal Words:
- Danger

Hazard Statement:
- H350 - May cause cancer by inhalation
- H372 - Causes damage to organs (lungs) through prolonged or repeated exposure by inhalation

Precautionary Statements:

Prevention:

- P203 - Obtain, read, and follow all safety instructions before use.
- P260 – Do not breathe dust.
- P264 – Wash hands thoroughly after handling.
- P280 - Wear face protection. (Specified in Section 8)

Response:

- P318 + P319 - If exposed, concerned, or you feel unwell get medical advice/help.

Storage:

- NONE

Disposal:

- P501 - Dispose of contents in accordance with local/regional regulations

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component	Weight Percent (Typical)	CAS Number	EC Number
Kaolinite	> 50	1318-74-7	215-286-4
Crystalline Silica (Non-combined quartz)	< 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.

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.

Hazards from Fire:
Under fire conditions, this product may emit toxic and/or irritating fumes.

Precautions for Fire Fighters:
Fire fighters should wear appropriate PPE to prevent exposure to fumes.

Section 6: ACCIDENTAL RELEASE MEASURES

- 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

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

Exposure	**Limit**	
Respirable Crystalline Quartz	ACGIH-TLV: OSHA-PEL: NIOSH:	0.025 mg/m^3 0.5 mg/m^3 0.05 mg/m^3
Titanium Dioxide	ACGIH-TLV: OSHA-PEL:	10 mg/m^3 (total dust), 15 mg/m^3 (total dust),
Kaolin	ACGIH-TLV: OSHA-PEL: NIOSH:	2mg/m^3 (respirable fraction) 15 mg/m^3 (total dust), 5mg/m^3(respirable fraction) 10 mg/m^3 (total dust),5mg/m^3 (respirable fraction)

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

Physical State: Solid lump or powder form

Color: brown, cream white, or gray coloration.

pH: 4.0 – 8.0

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

Odor Threshold: N/A

Relative Density/Specific Gravity: 2.40 - 2.65

Kinematic Viscosity: N/A

Decomposition Temp: > 600 ° C (Degrees Centigrade)

Partition coefficient n-octanol/water : N/A

Melting Point: > 1500° C (Degrees Centigrade)

Boiling Point: N/A

Flash Point: N/A

Flammability: Non-combustible solid

Flammable Limits: N/A

Auto-Ignition Temperature: N/A

Vapor Pressure: N/A

Relative Vapor Density: N/A

Solubility in Water: Insoluble

Particle Characteristics:
Shape – plate like
Size Distribution - More than 90% of clay particles are < 20 microns and 35 to 80% of clay particles are < 1 micron

Section 10: STABILITY AND REACTIVITY

Stability: Stable
Hazardous Decomposition: Non-existent
Fire and explosion: Non-flammable

Incompatibility: NIOSH lists Crystalline Silica as reacting with the following powerful oxidizers: fluorine, chlorine trifluoride, manganese trioxide, oxygen difluoride, hydrogen peroxide, acetylene, ammonia.
Hazardous Polymerization: Will not occur.

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.

1. The National Toxicology Program (NTP), in the 15th Annual Report on Carcinogens, December 2021, has included respirable crystalline silica on its list of substances that are "known to be human carcinogens.
2. NIOSH and OSHA have identified crystalline silica as a Category I potential occupational carcinogen using the OSHA Toxic and Hazardous Substances classification system outlined in Subpart Z of Regulation Standards 29 CFR 1910.1053, 1915.1053, and 1926.1153.
3. IARC Monograph Volume Sup 7, 68, 100C from 2012 concludes that crystalline silica is a Group 1 Carcinogen, carcinogenic to humans.
4. ACGIH identifies Crystalline Silica as an A2 Suspected Human Carcinogen.
5. ACGIH identifies Kaolin as an A4 Not Classified but Suspected as a Human Carcinogen.
6. IARC Monograph Volume 47, 93 from 2010 concludes that Titanium dioxide is a Group 2B Carcinogen, possibly carcinogenic to humans.
7. NIOSH has identified Titanium dioxide as a Category II potential occupational carcinogen using the OSHA Toxic and Hazardous Substances classification system outlined in the Regulation Standard 29 CFR 1910.1200.
8. ACGIH identifies Titanium dioxide as an A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans.

The state of California has determined that crystalline silica is a carcinogen to humans.

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.

1. This Product and its components are not regulated for transportation as a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code)
2. No Guidance for bulk transport is offered for this product or its components by Annex II of MARPOL 73/78 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code).
3. This product and its components are not listed on the Hazardous Substance List in the Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI) nor the IATA Dangerous Goods Regulations.
   UN Number – Not Applicable
   UN Proper Shipping Name – Not Applicable
   Transport Hazard Class – Not Applicable
   Packing Group – Not Applicable
   Environment Hazards – Not Applicable
   Special Precautions – NONE

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.
- This Clay product is non-hazardous under DOT regulations.
- This product and its components are not restricted by the Consumer Product Safety Commission.
- The components of this product are included in the Registration List of the Regulation (EC) 1907/2006 UK/EU Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) of the European Chemical Agency (ECHA) and the Health and Safety Executive (HSE) of Great Britain. None of the components of this product are listed in the Authorization, Restricted Substances, or Substances of Very High Concern (SVHC) Lists of the Regulation (EC) 1907/2006 UK/EU Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) of the European Chemical Agency (ECHA) and the Health and Safety Executive (HSE) of Great Britain.

Section 16: OTHER INFORMATION

This 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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