

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier

Material Name: Clay and/or Shale (includes other earthen materials)

Trade Name: Clay and/or Shale
Chemical Family: Predominately Aluminum Silicates
Formula: Mixture

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Brick manufacturing

Details of the Supplier of the Safety Data Sheet

Glen-Gery Corporation
1166 Spring Street
Wyomissing, PA 19610-6001
Product Support/Technical Services Phone: (610) 562-3076

Emergency telephone number:
Corporate Office: (610) 374-4011
Technical Services: (610) 562-3076
Contact E-Mail: GGtech01@oldcastle.com

2. HAZARDS IDENTIFICATION

Appearance: Solid; comes in wide range of colors

Hazard Classification of the Substance or Mixture: Skin irritation 2
Eye irritation 2A
Skin sensitization 1B
Carcinogenicity 1A
Specific target organ toxicity - Single exposure 3
Specific target organ toxicity - Repeated exposure 1

Signal Word: Danger

Hazard Statement: Clay dust may contain crystalline silica, a chemical that has been determined by certain agencies to cause cancer. See Section 11 for more information on health hazards.

Pictograms:



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2. HAZARDS IDENTIFICATION

Precautionary Statements:	Limit inhalation of clay dust. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area.
Response:	If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If brick dust is inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
Storage:	Not Applicable
Disposal:	Dispose of unused or unwanted brick products in accordance with all local, regional, national and international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	% Weight
Aluminum Silicates	Various	50 – 85
Quartz	14808-60-7	Varies

Additional Information: The above chemistries are provided for industrial hygiene and environmental purposes and are not intended to represent product specifications. This information has been compiled from data believed to be reliable. Elements such as aluminum, arsenic, boron, calcium, chromium, cobalt, copper, lead, molybdenum, nickel, tin, titanium, vanadium, and zirconium may be present in trace amounts. Clay and shale products as shipped do not present an exposure hazard.

4. FIRST AID MEASURES

Description of First Aid Measures

Eye Contact:	Flush with running water for approximately 15 minutes, if necessary. Obtain medical assistance if irritation continues.
Skin Contact:	Wash with soap and water. If an allergic reaction causes a rash that does not heal within a few days consult a physician. Treat abrasions using normal first aid procedures.
Ingestion:	None (no known acute effects).
Inhalation:	Remove from exposure to airborne particulates. Consult a physician if breathing does not return to normal.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of Exposure:	For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.
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**Medical Conditions
Aggravated by Exposure:**

Excessive dust exposure may aggravate existing respiratory disorders or diseases. Possible complications or allergies resulting in irritation to skin, eyes, and respiratory tract may occur from excessive exposure to dusts.

Recommendations for Immediate Medical Attention and Special Treatment Needed**Notes to Physician:**

Symptoms may not appear immediately.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Not applicable

Special Hazards Arising from the Substance or Mixture

**Hazardous Combustion
Products:** No data available

Fire / Explosion Hazards: Clay/Shale does not pose a fire or explosion hazard.

Advice for Fire-Fighters

None

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions and Protective Equipment**

Use personal protection recommended in Section 8.

Emergency Procedures

Not applicable.

Methods and Material for Containment and Cleaning Up

Not applicable.

Cleanup Procedures

Not applicable.

7. HANDLING AND STORAGE**Precautions for Safe Handling**

Minimize dust generation and accumulation. Avoid breathing dust.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: NA

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Aluminum Silicates

OSHA PEL	15 mg/m ³
ACGIH TLV	10 mg/m ³

Quartz

OSHA PEL	10 / (%SiO ₂ + 2) mg/m ³
ACGIH TLV	0.025 mg/m ³ (respirable)

Exposure Controls

Engineering Controls: Inhalation of dust from these materials above established or recommended exposure levels should be avoided through engineering or administrative controls. Provide adequate ventilation to maintain exposures below the OSHA PEL and ACGIH TLV for quartz and other substances.

Personal Protective Equipment: NIOSH and/or MSHA approved respirator.

Eyes and Face: Protective glasses or face shields.

Skin: Use gloves and or protective clothing if abrasions or allergic reactions are experienced.

Respiratory protection: For airborne concentration exceeding the OSHA PEL or ACGIH TLV use a NIOSH and/or MSHA approved respirator in accordance with a respiratory protection program meeting the OSHA or MSHA standards for such programs [29 CFR Section 1910.134 or ANSI Z88.2 – 1969].

Other: Recommend use of climate controlled enclosed cabs on earth moving equipment. In clay or shale processing areas, recommend area be properly ventilated and/or dust collection methods be employed to minimize and/or prevent exposure to respirable dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid	Color:	Shale: light brown to blue-black. Clay: Red, black, white to light gray
Odor:	No data available	Odor Threshold:	No data available
Molecular Formula:	Mixture	Molecular Weight:	Mixture
Solvent Solubility:	No data available		
Water Solubility:	Negligible		
pH:	No data available.		
Melting/Freezing Point (°C):	NA		
Boiling Point (°C):	NA		
Partition Coefficient: (Method, pH, Endpoint, Value)			
	No data available		
Decomposition Temperature (°C):	No data available.		
Evaporation Rate (Gram/s):	No data available		
Vapor Pressure (kPa):	NA		
Vapor Density (g/ml):	NA		
Relative Density:	No data available		
Viscosity:	No data available		

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Flammability:

Autoignition Temperature (Solid) (°C):	No data available
Flammability (Solids):	No data available
Flash Point (Liquid) (°C):	No data available
Upper Explosive Limits (Liquid) (% by Vol.):	No data available
Lower Explosive Limits (Liquid) (% by Vol.):	No data available

10. STABILITY AND REACTIVITY

Reactivity:	None
Chemical Stability:	Stable under normal conditions of use
Possibility of Hazardous Reactions:	
Oxidizing Properties:	No data available
Incompatible Materials:	No data available
Hazardous Decomposition Products:	No data available

11. TOXICOLOGICAL INFORMATION**Effects of Short Term and Long Term Exposure:****Short Term**

During mining and/or processing, clays and shale may present an inhalation, ingestion or contact hazard.

Eye:	May cause irritation by abrasion with airborne dust.
Skin:	Dust may cause allergic reactions in hypersensitive individuals.
Inhalation:	Dust may cause congestion and irritation in nasal and respiratory passages.
Ingestion:	No known acute effects.

Long Term

Excessive exposures to respirable particulates (dust) over an extended period of time may result in the development of pulmonary diseases such as silicosis.

Information on Toxicological Effects**General Information:**

Toxicological properties of the formulation have not been investigated. The information in this section describes the potential hazards of crystalline silica. Clay, shale and other earthen materials contain naturally-occurring crystalline silica, a chemical that has been determined by the agencies listed below to cause cancer. Inhalation of dust from these materials above established or recommended exposure levels should be avoided through engineering or administrative controls or the use of a NIOSH and/or MSHA approved respirator.

Carcinogen Status:

The following carcinogenicity classifications for crystalline silica have been established by the following agencies:

11. TOXICOLOGICAL INFORMATION

- OSHA:** Not regulated as a carcinogen
- IARC:** Group 1 carcinogenic in humans
- NIOSH:** Carcinogen, with no further categorization
- NTP:** Known carcinogen

12. ECOLOGICAL INFORMATION

There are no known environmental impacts.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Dispose of waste in accordance with all applicable laws and regulations. State specific and Community specific provisions must be considered. It is recommended that waste minimization be practiced.

14. TRANSPORT INFORMATION

This material is not regulated for transportation as a hazardous material/dangerous good.

DOT: Clay, shale and earthen materials are not hazardous materials per DOT regulations.

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

RCRA, CWA, CAA: Clay, shale and other earthen materials are typically not regulated as wastes unless they have been processed or contain other additives. Local regulation may vary, therefore, all waste must be disposed/recycled/reclaimed in accordance with federal, state, and local environmental control regulations. Water containing suspended solids from clay or shale mining or processing should be managed in accordance with federal, state and local environmental regulations. CAA legislation typically regulates fugitive and non-fugitive dust from clay mining and/or processing activities through the use of state and/or federal air permits.

EPCRA Section 311/312: Clay, shale and earthen materials are subject to reporting under Section 311/312.

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15. REGULATORY INFORMATION

- EPCRA Section 313:** Clay, shale and earthen materials are not subject to the Section 313, Toxic Chemical Release Inventory reporting requirements.
- DOT:** Clay, shale and earthen materials are not hazardous materials per DOT regulations.
- California Proposition 65:** This product contains crystalline silica, a substance known to the State of California to cause cancer. This product may contain trace amounts of heavy metals known to the State of California to cause cancer, birth defects, or other reproductive harm.

16. OTHER INFORMATION

It is believed that clay, shale and earthen materials do not release hazardous substances in their undisturbed state. However, when the material is processed or handled in such a way as to produce airborne dust, precautions may be warranted to protect workers from potential exposure to respirable silica.

- Data Sources:** The data contained in this SDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.
- Reasons for Revision:** Converted MSDS to SDS.
- Prepared by:** The Glen-Gery Corporation

This SDS was prepared with information believed accurate at the time of preparation and was prepared and provided in good faith. However, the Glen-Gery Corporation assumes no responsibility as to the accuracy or suitability of such information and no warranty expressed or implied is made.

End of Safety Data Sheet
