



Safety Data Sheet

Section 1: Identification

1.1. Product Identification

Product Name: CN Ceramic (Terracotta)

1.2. Recommended Use of the Material

Use: Building Material – The architectural ceramic products manufactured by Jiangsu CN Eco-Materials Co., Ltd sustainable exterior cladding (envelope) choices for buildings.

1.3. Manufacturer Information

Jiangsu CN Eco-Materials Co., Ltd.

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Section 2: Hazard(s) Identification

2.1. Hazard Classification

Architectural ceramic products are mixtures of predominantly clays and naturally occurring minerals that are mixed with water extruded under high pressure, dried at low temperature and then fired at 1200°C temperature kiln. The finished CN products are odorless, stable, non-flammable and are completely inert with no VOCs- hence they pose no immediate hazard to health. The hazard information below pertains only to situations where grinding, cutting or demolition of Terra Cotta may be taking place and therefore airborne particulate dust is present. It should be clearly understood that during normal handling and construction operations required to hang these products pose no such hazard.

GHS-US Labelling

Skin Irritation 2

Eye Irritation 2A

Carcinogenicity 1A

Specific Target Organ Toxicity – Repeated Exposure 1

2.2. Hazard Statement

GHS-US Labelling

Hazard pictograms (GHS-US):



Signal word (GHS-US) : Danger

Hazard statements (GHS-US)

Potential skin irritation. Potential eye irritation. May cause damage to organs or cancer through prolonged or repeated exposure to airborne particulate matter as a result of cutting, grinding, demolition, etc. Risks to human health may arise when products are reworked, liberating dust (which contains a proportion of free crystalline silica) in a form which is respirable.

Precautionary statements (GHS-US)

When exposed to airborne particulate matter as a result of cutting, grinding or demolition activities: Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection. Avoid breathing dust. Do not eat, drink, or smoke when using this product. If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation 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.

2.3. Other Hazards

No additional information available.



Section 3: Composition/Information on Ingredients

3.1. Substances

Not applicable.

Product pre-heat treatment:

Name	Product Identifier	%
Kaolin	(CAS No.) 1332-58-7	50 – 70
Aluminum silicate	(CAS No.) 1302-76-7	25 – 40
Calcium silicate	(CAS No.) 1344-95-2	1 – 5
Feldspar	(CAS No.) 68476-25-5	1 – 5
Barium carbonate	(CAS No.) 513-77-9	< 1

Product post-heat treatment:

Oxide Formula	Oxide Name	CAS No.	Wt%	Source
SiO ₂	Silicon dioxide	14808-60-7	68.6	Fireclay, feldspar, aluminum silicate, calcium silicate
Al ₂ O ₃	Aluminum oxide	1344-28-1	19	Fireclay, feldspar
K ₂ O	Potassium oxide	12136-45-7	2.5	Feldspar
CaO	Calcium oxide	1305-78-8	.20	Calcium silicate
Na ₂ O	Sodium oxide	1313-59-3	2.5	Feldspar
TiO ₂	Titanium (IV) oxide	13463-67-7	.28	Natural impurities in the fireclay.
Fe ₂ O ₃	Iron (III) oxide	1309-37-1	.51	Natural impurities in the fireclay.

† With the exception of the natural gas used to heat treat the terracotta, no volatile organic compounds are used in the production of any CN Terra Cotta materials.

† Analysis performed using energy dispersive spectroscopy (EDS).

Section 4: First-Aid Measures

4.1. Description of first aid measures

First-aid measures after inhalation:

If inhaled and if breathing is difficult, move to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice/attention if symptoms persist.

First-aid measures after skin contact:

On contact with dust, wash with soap and water. If irritation occurs seek medical attention. Abrasions to skin - Wash with water and apply sterile dressing

First-aid measures after eye contact:

In case of contact, immediately flush eyes with water for at least 15 minutes. If able, remove contact lenses if present. If irritation persists, seek medical attention.

First-aid measures after ingestion:

Not a normal route of exposure. If swallowed, do NOT induce vomiting. Drink plenty of water. If victim is unconscious, do NOT administer anything by mouth. Seek medical advice/attention if symptoms persist.



4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation:

Dust may cause respiratory tract irritation.

Symptoms/injuries after skin contact:

Causes skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of the skin.

Symptoms/injuries after eye contact:

Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/injuries after ingestion:

Not a normal route of exposure. May result in temporary irritation of the digestive tract.

4.3. Recommendations for immediate medical care and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: Fire-fighting Measures

5.1. Suitable extinguishing equipment

Suitable extinguishing media: None required – nonflammable

Unsuitable extinguishing media: None required – nonflammable

Section 6: Accidental Release Measures

6.1. Personal precautions, protective equipment, and emergency procedures

General Measures: Use personal protection equipment. Isolate the area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and clean up

For containment: Pick up large pieces and then place in a suitable container. Minimize the generation of dust. Use appropriate personal protection equipment (PPE).

Methods for cleaning up: Vacuum material and place in a disposal container. Use wet methods, if appropriate, to reduce the generation of dust.

Section 7: Handling and Storage

7.1. Precautions for safe handling

When cutting, grinding, or removing, use equipment with dust collection and/or local exhaust ventilation. Use wet cutting methods to reduce generation of dust. Use respiratory protection in absence of effective engineering controls. Material is inert so shelf life is unlimited.

Care should be taken when handling clay products. Good lifting practices must be followed at all times to avoid the risk of sprains, strains or ruptures. Whenever reasonably practicable, mechanical handling means should be used. Products are delivered on pallets, in combinations comprising shrink wrapped or banded products. The recommended method of off-loading from vehicles is by a mechanical handling system. When using hand off-loading methods, follow safe lifting methods and procedures to avoid personal injury.

Hygiene measures:



Laundry contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions:

All products must be stored on a level, hard surface and not soft or sloping ground. When stacking products on top of each other, care must be taken to use safe lifting procedures and to ensure the stability of the stack. We recommend pallets are stack more than 2 high.

7.3. Specific end use(s)

Not available.

Section 8: Exposure Controls/Personal Protection

8.1. Control parameters

Kaolin (1332-58-7)		
NIOSH	NIOSH REL (TWA) (mg/m3)	10 mg/m3 (total) 5 mg/m3 (respirable)
OSHA	OSHA PEL (TWA) (mg/m3)	15 mg/m3 (total dust) 5 mg/m3 (respirable fraction)

Calcium silicate (1344-95-2)		
NIOSH	NIOSH REL (TWA) (mg/m3)	10 mg/m3 (total) 5 mg/m3 (respirable)
OSHA	OSHA PEL (TWA) (mg/m3)	15 mg/m3 (total dust) 5 mg/m3 (respirable fraction)

8.2. Exposure controls

Appropriate engineering controls:

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits. Use wet methods, if appropriate, to reduce the generation of dust.

- Hand protection:** Wear protective gloves.
 - Eye protection:** Wear eye protection.
 - Skin and body protection:** Wear suitable protective clothing.
 - Respiratory protection:** In case of insufficient ventilation, wear suitable respiratory equipment.
 - Hearing Protection:** Earplugs should be used when cutting clay products to protect against noise harm.
- Environmental exposure controls:** Maintain levels below environmental protection thresholds.



Other information: Do not eat, smoke, or drink where material is handled, processed, or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

Section 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical state:	Clay tiles are inert, odorless and solid when manufactured.
Appearance:	Ceramic solid
Color:	Assorted colors
Odor:	Odorless
Odor threshold:	No data available
pH:	No data available
Melting point:	1650°C
Freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Relative evaporation rate (butyl acetate=1):	No data available
Flammability (solid, gas):	Not flammable
Explosive limits:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density (g/cm ³):	2.0-2.5
Relative vapor density at 20°C:	No data available
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available

9.2. Other information

No additional information available.

Section 10: Stability and Reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

No dangerous reaction known under conditions of normal use.

10.3. Possibility of hazardous reactions

None known.



10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

Section 11: Toxicological Information

11.1. Information on toxicological effects

No data available.

Section 12: Disposal Considerations

Terra Cotta is a 100% recyclable cradle to cradle material which can be pulverized into grog, a key ingredient in clay recipes. It also has multiple re-use applications such as fill material for roads.