



1. Identification

Product Name: Kaolin Tiles
 Manufacturer: Kaolin Tiles
 Address: 4/33 Maddox Street, Alexandria NSW 2015
 Emergency Phone Number: +61 2 8814 9447

2. Hazards Identification

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

This product is classified as a health hazard under 29 CFR 1910.1200. Porcelain tile as a whole is not hazardous, however, installation and handling of this product may subject user to airborne dust/particles from cutting and/or breaking tiles under normal expected installation procedures.

Carcinogenicity	Category: 1A	Signal Word: DANGER
Specific Target Organ Toxicity (Repeated Exposure)	Category: 1	Signal Word: DANGER
Specific Target Organ Toxicity (Single Exposure)	Category: 3	Signal Word: WARNING
Hazard Statements: May cause cancer. Causes damage to organs (lungs) through prolonged or repeated exposure. May cause respiratory irritation.		

PRECAUTIONARY STATEMENTS:

PREVENTION: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in well-ventilated area. Do not eat, drink, or smoke while using this product. Avoid breathing dust/particles. Wear protective gloves/clothing/eye protection/face protection. Wash face/hands/skin thoroughly after handling.

RESPONSE: If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes or on skin: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Remove contaminated clothing, wash before reuse. If exposed or concerned, get medical advice/attention. Call a Poison Center if you feel unwell.

STORAGE: Store locked up, in original packaging until needed for use.

DISPOSAL: Dispose of contents/container in accordance with local/regional/national/international regulations.



3. Composition and Ingredient Information

SUBSTANCES

Kaolin Tiles consist primarily of the following components:

Name	%[weight]	CAS No
Clay	45-60	1302-87-0
Feldspars	20-40	68476-25-5
Silica crystalline quartz	5-20	14808-60-7
Kaolin	5-10	1332-58-7
Limestone	1-3	1317-65-3
Glaze	1-5	Not Available



4. First Aid Measures

INHALATION:

Not expected from intact tiles. If dust/particles from cut or broken tiles is inhaled: move victim to fresh air. Place in comfortable breathing position. Get medical attention if breathing becomes difficult at any time.

SKIN CONTACT:

If on skin: wash thoroughly with soap and water. If any symptoms or irritation result from exposure get medical attention.

EYE CONTACT:

Not expected from intact tiles. If dust/particles from cut or broken tiles gets in eyes: rinse with water for several minutes. Remove contacts, continue rinsing. If irritation results from exposure, get medical attention.

INGESTION:

Not expected from intact tiles. If dust/particles from cut or broken tiles is swallowed, rinse mouth with water. DO NOT induce vomiting.

MOST IMPORTANT SYMPTOMS/EFFECTS:

Acute: Inhalation of dust/particles can lead to respiratory irritation. Exposure to skin and eyes can cause irritation and drying.

Delayed: Chronic or repeated inhalation of airborne dust/particles from cut or broken tiles can cause Silicosis, Pulmonary Fibrosis, COPD and/or other lung cancers

IMMEDIATE MEDICAL ATTENTION/SPECIAL TREATMENT:

Emergency medical attention is not expected from single or acute exposure, however, chronic inhalation of product in dust/particle form may lead to lung disorders requiring medical intervention and treatments

5. Firefighting Measures

SUITABLE EXTINGUISHING MATERIAL:

Porcelain Tiles do not pose a fire hazard, use suitable media to extinguish surrounding area. water mist, CO2, or Dry Chemical (ABC) extinguishers

PORCELAIN TILE

HEALTH 1

SPECIAL FIRE-FIGHTING PROCEDURES:

Wear self-contained breathing apparatus with full-face mask and fire-fighter protective clothing when fighting fires when silica dust is dispersed in the air..

FLAMMABILITY 0

PHYSICAL HAZARDS 0

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

6. Accidental Release Measures

PERSONAL PRECAUTIONS: When cutting tile during installation: Wet cutting is highly recommended. Dry cutting will cause excessive particle and dust formation. Avoid inhalation of particles/dust from cut or broken tiles.

PROTECTIVE EQUIPMENT: A dust collection system is recommended for all indoor areas. PPE (eye and respiratory protection) is required when exposed to environment containing airborne particles/dust that meet or exceed the PEL. Only use NIOSH approved respirators (Half or Full Face).

EMERGENCY PROCEDURES: None expected

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: For clean-up of excessive amounts of particles/dust, a vacuum system containing a High-Efficiency Particulate (HEPA) filtering system is highly recommended. User must use respiratory protection as levels of airborne contaminants may exceed PEL's



7. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING: Product is fragile, handle with care. Breakage of tiles can produce potentially harmful airborne contaminants. Avoid inhalation of dust. Use appropriate personal protective equipment (PPE) such as gloves and safety glasses. Padding between hard edges and tile is recommended.

CONDITIONS FOR SAFE STORAGE: Padding between hard edges or in original packaging keep away from incompatible materials such as acids.

8. Exposure Controls and Personal Protection

APPROPRIATE ENGINEERING CONTROLS: Use sufficient local exhaust ventilation, or other engineering controls to maintain the level of respirable SiO₂ below the Occupational Safety and Health Administration (OSHA) PEL. For most operations general ventilation should be sufficient, however, local exhaust ventilation will be necessary for operations indoors or in confined non-ventilated rooms. Use wet-cutting methods when available. Avoid creating duct conditions.

RESPIRATORY PROTECTION: When engaged in cutting or finishing tasks, it is essential to prioritize measures that protect respiratory health. To avoid inhaling generated dust, it is advisable to wear a dust mask or respirator. It is important to use respirators with appropriate protection factors that match the exposure level. Certified respirators are recommended, and it is best to avoid creating conditions that generate dust. Professional judgment should inform the choice of respiratory protection, taking into account factors such as toxicity information, exposure measurement data, and published occupational exposure limits. For nuisance levels of dust, it is appropriate to use type N95 (US) or type P1 (EU) dust masks. If significant quantities of dust become airborne, approved positive flow masks are recommended. By taking these precautions, one can ensure that respiratory health is safeguarded while engaged in cutting or finishing tasks. wear a NIOSH-approved air-purifying respirator with HEPA filters or the appropriate NIOSH-approved respirator.

EYE & FACE PROTECTION: Under normal conditions, wear safety goggles that meet the ANSI Z87.1 standard.

HAND PROTECTION: Light wight rubber gloves may be worn to avoid contact with skin. Wash hands before and after using/handling product.

PROTECTIVE CLOTHING: Wear long pants and long-sleeved shirts while working with this material.

Component	CAS	OSHA PEL; TWA	ACGIH TLV	NIOSH REL
Crystalline Silica	14808-60-7	50mcg/m ³ /8 hour avg	.025 mg/m ³	50mcg/m ³
Aluminum Oxide	1344-28-1	15 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³
Sodium Oxide	1313-59-3	15 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³
Potassium Oxide	12030-88-5	15 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³
Calcium Oxide	1305-78-8	15 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³
Titanium Dioxide	13463-67-7	15 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³	10 mg/m ³ (T); 5 mg/m ³

9. Physical and Chemical Properties

APPEARANCE: Solid tiles of various colors and sizes

Odor: Odorless

Melting Point: N/A

Solubility in Water: Insoluble

Flash Point: N/A

Vapor Pressure: N/A

Physical state: Manufactured

Boiling Point: N/A

Density: [Density value]

flammability: N/A

pH: N/A

10. Stability and Reactivity Information

STABILITY: Stable under normal conditions of use and storage.



11. Toxicological Information

Kaolin Tiles, when intact, do not pose any known harmful routes of exposure. However, hazards arise from dust and particle formation when cutting or breaking the tiles.

Routes of Entry (only from cut or broken tile):

Inhalation: YES **Ingestion:** YES **Eye:** YES **Skin:** YES

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL, AND TOXICOLOGICAL CHARACTERISTICS: Exposure to airborne dust particles from cut or broken Kaolin Tiles can cause irritation of the eyes, skin, and respiratory tract.

Repeated inhalation of airborne dust/particles exceeding the OSHA PEL may lead to lung disorders such as Silicosis, Pulmonary Fibrosis, COPD, and other lung disorders, resulting in constant difficulty breathing and potentially worsening other health conditions.

IMMEDIATE EFFECTS: If exposed to airborne dust/particles: eye irritation, skin drying and irritation, and respiratory tract irritation.

CHRONIC EFFECTS: Chronic inhalation of airborne dust/particles from Kaolin Tiles can cause delayed health effects, including the development of conditions like Silicosis, Pulmonary Fibrosis, COPD, lung cancer, and worsening of kidney, heart, and other organ conditions. Crystalline silica in the form of quartz or cristobalite from occupational sources has been classified as a human carcinogen by the International Agency for Research on Cancer (IARC) and Known to be a Human Carcinogen by the National Toxicology Program (NTP). Chronic exposure may also lead to Scleroderma, connective tissue disorders, lupus, rheumatoid arthritis, chronic kidney diseases, and end-stage kidney disease in workers.

WARNING: Inhalation exposure to Kaolin Tiles may result in serious damage to health due to prolonged exposure. The material contains crystalline silica in the form of quartz, classified as carcinogenic to humans by IARC. Silicosis, a non-cancerous lung disease, can also result from exposure to crystalline silica. Intermittent exposure to silica dust may produce focal fibrosis (pneumoconioses), cough, dyspnea, and liver tumors.

It is essential to take precautions when cutting or breaking Kaolin Tiles to minimize the generation and inhalation of dust particles. Respiratory protection and appropriate ventilation should be used to reduce exposure to harmful dust. Additionally, regular health surveillance of workers occupationally exposed to silica, crystalline, is recommended to monitor any potential health effects.

CARCINOGENICITY:	NTP: Known to be Human Carcinogen	IARC: Group I	OSHA: Potential
LD50/LC50: None	Mutagenicity: None	Neurotoxicity: None	Reproductive Effects: None

12. Ecological Information

ALL KAOLIN TILES ARE 100% SUSTAINABLE:

All our tiles are Level-A GreenRate certified and can be used for assessment by the Green Building Council of Australia (GBCA). It is the most comprehensive green certificate in the porcelain tiles industry, meaning by choosing our products you should get the maximum score with GreenStar Rating.

13. Disposal Information

WASTE DISPOSAL OF SUBSTANCE: Dispose of Kaolin Tiles waste in a landfill certified to accept such materials in accordance with federal, state, and local regulations.

14. Transportation Information

Not classified as hazardous for transportation.



15. Regulatory Information

To ensure safety, health, and environmental compliance when using clay, refer to the relevant regulatory lists.

For feldspars: consult the Australian Inventory of Industrial Chemicals (AIIC) and the International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS).

For silica crystalline - quartz: refer to the Australia Hazardous Chemical Information System (HCIS), the Australia Model Work Health and Safety Regulations, the Australian Inventory of Industrial Chemicals (AIIC), the Chemical Footprint Project - Chemicals of High Concern List, and the International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs.

For kaolin: refer to the Australian Inventory of Industrial Chemicals (AIIC) and the International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS).

For limestone: consult the Australian Inventory of Industrial Chemicals (AIIC) and the International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS).

16. Other Information

This Work Safety Data Sheet provides essential health and safety information related to the identified Kaolin Tiles. It is not intended to be a comprehensive document and should only be used as a guide. Users should ensure they are familiar with the product's properties and potential hazards before handling it. If further information is required, refer to the manufacturer or relevant technical documents.