

Safety Data Sheet

Product Name **TERRACOTTA ROOF TILES AND ROOF TILE ACCESSORIES**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier name CSR BUILDING PRODUCTS LIMITED
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Synonym(s) CSR TERRACOTTA ROOF TILES AND ROOF TILE ACCESSORIES
Use(s) ROOFING
SDS date 17 November 2014

2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

Risk Phrases

None allocated

Safety Phrases

None allocated

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

| | | | |
|----------------------|----------------|-------------------------------|----------------|
| UN Number | None Allocated | Transport Hazard Class | None Allocated |
| Packing Group | None Allocated | Hazchem Code | None Allocated |

3. COMPOSITION/ INFORMATION ON INGREDIENTS

| Ingredient | CAS Number | EC Number | Content |
|-----------------------------|------------|-----------|---------|
| QUARTZ (CRYSTALLINE SILICA) | 14808-60-7 | 238-878-4 | <40% |
| MANGANESE DIOXIDE | 1313-13-9 | 215-202-6 | <2% |
| CLAY | - | - | >60% |

4. FIRST AID MEASURES

Eye (Dust exposure) Flush gently with running water, irrigating under eyelids. Seek medical attention if irritation develops.

Inhalation Exposure is considered unlikely. Due to product form / nature of use, an inhalation hazard is not anticipated.

Skin Exposure is considered unlikely unless solid is cut or damaged and dusts generated. Gently flush affected areas with water. Seek medical attention if irritation develops.

Ingestion For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). Due to product form and application, ingestion is considered unlikely.

Advice to doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammability Non flammable.
Fire and explosion No fire or explosion hazard exists.
Extinguishing Use an extinguishing agent suitable for the surrounding fire.
Hazchem code None Allocated

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.
Environmental precautions Prevent product from entering drains and waterways.
Methods of cleaning up Collect and reuse where possible.
References See Sections 8 and 13 for exposure controls and disposal.

7. STORAGE AND HANDLING

Storage Ensure products are adequately labelled and protected from physical damage.
Handling Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards

| Ingredient | Reference | TWA | | STEL | |
|-------------------------------------|-----------|-----|-------------------|------|-------------------|
| | | ppm | mg/m ³ | ppm | mg/m ³ |
| Manganese, dust & compounds (as Mn) | SWA (AUS) | -- | 1 | -- | -- |
| Manganese, fume (as Mn) | SWA (AUS) | -- | 1 | -- | 3 |
| Quartz (respirable dust) | SWA (AUS) | -- | 0.1 | -- | -- |

Biological limits No biological limit allocated.
Engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Wet where possible. Maintain dust levels below the recommended exposure standard.
PPE
Eye / Face If cutting or sanding with potential for dust generation, wear dust-proof goggles.
Hands Wear leather or cotton gloves.
Body Not required under normal conditions of use.
Respiratory If cutting or sanding with potential for dust generation, wear a Class P1 (Particulate) respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance COLOURED SOLID
Odour SLIGHT ODOUR
Flammability NON FLAMMABLE
Flash point NOT RELEVANT
Boiling point NOT AVAILABLE
Melting point NOT AVAILABLE
Evaporation rate NOT AVAILABLE
pH NOT AVAILABLE

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| | |
|---------------------------|---------------|
| Vapour density | NOT AVAILABLE |
| Specific gravity | 1.9 to 2.1 |
| Solubility (water) | INSOLUBLE |
| Vapour pressure | NOT AVAILABLE |
| Upper explosion limit | NOT RELEVANT |
| Lower explosion limit | NOT RELEVANT |
| Partition coefficient | NOT AVAILABLE |
| Autoignition temperature | NOT AVAILABLE |
| Decomposition temperature | NOT AVAILABLE |
| Viscosity | NOT AVAILABLE |
| Explosive properties | NOT AVAILABLE |
| Oxidising properties | NOT AVAILABLE |
| Odour threshold | NOT AVAILABLE |
| % Volatiles | NOT AVAILABLE |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| Chemical stability | Stable under recommended conditions of storage. |
| Conditions to avoid | No known conditions to avoid. |
| Material to avoid | Incompatible with strong acids (e.g. hydrofluoric acid). |
| Hazardous Decomposition Products | May evolve toxic gases if heated to decomposition. |
| Hazardous Reactions | Polymerization is not expected to occur. |

11. TOXICOLOGICAL INFORMATION

| | | | | | | | | | | | | | | | |
|------------------------------|---|-------------------|---|-------------------|---|------------------|--------------------|---------------------|-------------------|----------------------|----------------|--------------------|-------------------|-------------------|---|
| Health Hazard Summary | Low toxicity. Adverse health effects, usually associated with long term exposure to high crystalline silica dust levels are not anticipated, Due to the product form. This product may present a hazard if Tiles are cut, sanded or drilled with dust generation. Use safe work practices to avoid dust generation - inhalation. Chronic exposure to dust may result in lung fibrosis (silicosis). Crystalline silica is classified as carcinogenic to humans (IARC Group 1). | | | | | | | | | | | | | | |
| Eye | Due to product form and nature of use, the potential for exposure is reduced. Product may only present a hazard if material is cut, drilled or sanded with dust generation, which may result in mechanical irritation. Due to product form and nature of use, the potential for exposure is reduced. Product may only present a hazard if tiles are cut, drilled or sanded with dust generation, which may result in mechanical irritation. | | | | | | | | | | | | | | |
| Inhalation | Exposure considered unlikely. An inhalation hazard is not anticipated unless cut, drilled or sanded with dust generation, which may result in irritation of the nose and throat. | | | | | | | | | | | | | | |
| Skin | Low irritant. Prolonged or repeated contact may result in mild irritation due to mechanical action. | | | | | | | | | | | | | | |
| Ingestion | Ingestion is considered unlikely due to product form. | | | | | | | | | | | | | | |
| Toxicity data | <p>QUARTZ (CRYSTALLINE SILICA) (14808-60-7)</p> <table><tr><td>LCLo (inhalation)</td><td>300 ug/m³/10 years (human)</td></tr><tr><td>TCLo (inhalation)</td><td>16 000 000 particles/ft³/8 hours/17.9 years (human-fibrosis)</td></tr></table> <p>MANGANESE DIOXIDE (1313-13-9)</p> <table><tr><td>LD50 (ingestion)</td><td>> 3478 mg/kg (rat)</td></tr><tr><td>LD50 (subcutaneous)</td><td>422 mg/kg (mouse)</td></tr><tr><td>LDLo (intratracheal)</td><td>50 mg/kg (rat)</td></tr><tr><td>LDLo (intravenous)</td><td>45 mg/kg (rabbit)</td></tr><tr><td>TCLo (inhalation)</td><td>49 mg/m³/7 hours (1-18 day pregnant mouse)</td></tr></table> | LCLo (inhalation) | 300 ug/m ³ /10 years (human) | TCLo (inhalation) | 16 000 000 particles/ft ³ /8 hours/17.9 years (human-fibrosis) | LD50 (ingestion) | > 3478 mg/kg (rat) | LD50 (subcutaneous) | 422 mg/kg (mouse) | LDLo (intratracheal) | 50 mg/kg (rat) | LDLo (intravenous) | 45 mg/kg (rabbit) | TCLo (inhalation) | 49 mg/m ³ /7 hours (1-18 day pregnant mouse) |
| LCLo (inhalation) | 300 ug/m ³ /10 years (human) | | | | | | | | | | | | | | |
| TCLo (inhalation) | 16 000 000 particles/ft ³ /8 hours/17.9 years (human-fibrosis) | | | | | | | | | | | | | | |
| LD50 (ingestion) | > 3478 mg/kg (rat) | | | | | | | | | | | | | | |
| LD50 (subcutaneous) | 422 mg/kg (mouse) | | | | | | | | | | | | | | |
| LDLo (intratracheal) | 50 mg/kg (rat) | | | | | | | | | | | | | | |
| LDLo (intravenous) | 45 mg/kg (rabbit) | | | | | | | | | | | | | | |
| TCLo (inhalation) | 49 mg/m ³ /7 hours (1-18 day pregnant mouse) | | | | | | | | | | | | | | |

12. ECOLOGICAL INFORMATION

| | |
|--------------------------------------|--------------------------|
| Toxicity | No information provided. |
| Persistence and degradability | No information provided. |
| Bioaccumulative potential | No information provided. |
| Mobility in soil | No information provided. |

Other adverse effects The main component/s of this product are not anticipated to cause any adverse effects to plants or animals.

13. DISPOSAL CONSIDERATIONS

Waste disposal Reuse where possible. Dispose of in accordance with local regulations.
Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

| | LAND TRANSPORT (ADG) | SEA TRANSPORT (IMDG / IMO) | AIR TRANSPORT (IATA / ICAO) |
|-------------------------------|---------------------------------|---------------------------------------|--|
| UN Number | None Allocated | None Allocated | None Allocated |
| Proper Shipping Name | None Allocated | None Allocated | None Allocated |
| Transport Hazard Class | None Allocated | None Allocated | None Allocated |
| Packing Group | None Allocated | None Allocated | None Allocated |

Environmental hazards No information provided

Special precautions for user

Hazchem code None Allocated

15. REGULATORY INFORMATION

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Inventory Listing(s) **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**
 All components are listed on AICS, or are exempt.

16. OTHER INFORMATION

Additional information **PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**
 The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:
 It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

| | |
|-------------------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| CAS # | Chemical Abstract Service number - used to uniquely identify chemical compounds |
| CNS | Central Nervous System |
| EC No. | EC No - European Community Number |
| GHS | Globally Harmonized System |
| IARC | International Agency for Research on Cancer |
| LC50 | Lethal Concentration, 50% / Median Lethal Concentration |
| LD50 | Lethal Dose, 50% / Median Lethal Dose |
| mg/m ³ | Milligrams per Cubic Metre |
| OEL | Occupational Exposure Limit |
| pH | relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). |
| ppm | Parts Per Million |
| STEL | Short-Term Exposure Limit |
| STOT-RE | Specific target organ toxicity (repeated exposure) |
| STOT-SE | Specific target organ toxicity (single exposure) |
| SUSMP | Standard for the Uniform Scheduling of Medicines and Poisons |
| SWA | Safe Work Australia |
| TLV | Threshold Limit Value |
| TWA | Time Weighted Average |

Revision history

| Revision | Description |
|----------|----------------------|
| 2.0 | Standard SDS Review |
| 1.0 | Initial SDS creation |

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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Revision: 2

SDS Date: 17 November 2014

End of SDS