Boral Roofing

Material Safety Data Sheet

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Latest Revision:

SECTION I - PRODUCT IDENTIFICATION

Product Name: Ceramic (clay) roof tile

Chemical Family: Predominately Clay

Formula: Mixture

SECTION II - HAZARDOUS INGREDIENTS

CECTION II - INPLANDOCC INCINEDIENTO				
<u>Ingredients</u>	CAS#	% Weight	Exposure Limits	
			OSHA PEL (mg/m³)	ACGIH TLV (mg/m ³)
Aluminum Silicates, clay	Various	70 - 80%	15 (total); 5 (respirable)	10 (total); 3 (respirable)
Crystalline silica, quartz	14808-60-7	3 -18	30 / %SiO ₂ + 2 (total); 10 /10%SiO ₂ + 2 (respirable)	0.025 (respirable)
Iron Oxide	Various	4 - 6	10 (fume)	5 (fume)
Titanium Dioxide	13463-67-7	0.5 – 0.8	15 (total)	10
Magnesium Oxide	1309-48-4	2 - 3.5	15	10
Potassium Oxide	12136-45-7	2 -2.5	Not Established	10 (total); 3 (respirable)
Sodium Oxide	12401-86-4	2 – 3.5	Not Established	10 (total); 3 (respirable)
Manganese Compounds	7439-96-5	0 – 1.5	5 (total as ceiling value)	0. 2

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 roof tile as shipped does not present an exposure hazard.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: NA Melting Point: NA Vapor Pressure: NA Vapor Density: NA

Specific Gravity: 2.0 - 3.0 Solubility in Water: Negligible

Appearance and Odor: Granular solid, essentially odorless.

SECTION IV – FIRE AND EXPLOSION HAZARD DATA	SECTION V – REACTIVITY	
Roof tile as shipped does not pose a fire or explosion hazard.	Roof tile as shipped is not reactive	

SECTION VI - HEALTH HAZARD DATA

Roof tile as shipped does not present an inhalation, ingestion or contact hazard. However, operations such as sawing and grinding may result in the following effects.

ACUTE EFFECTS OF OVEREXPOSURE:

Eye: May cause irritation by abrasion with dust or chips.

Skin: Clay dust or chips may cause irritation or rashes in hypersensitive individuals; May cause cuts and skin abrasions.

Inhalation: Clay dust or chips may cause congestion and irritation in nasal and respiratory passages.

Ingestion: No known acute effects.

CHRONIC EFFECTS OF OVEREXPOSURE:

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

CARCINOGENICITY:

The following carcinogenicity classifications for product ingredients have been established by the following

agencies:

Crystalline silica Titanium Dioxide

OSHA: Not regulated as a carcinogen
IARC: Group 1 carcinogenic in humans
NIOSH: Carcinogen, with no further categorization
NTP: Known carcinogen
NTP: Not regulated as a carcinogen
2B Possible Carcinogenic
Potential Human Carcinogen
Not Classified

WARNING: Roof tile dust may contain crystalline silica and titanium dioxide, chemicals that has been determined by the agencies listed above to cause cancer. Inhalation ofclay dust above established or recommended exposure levels should be avoided by use of

wet sawing or shaping and/or use of a NIOSH and/or MSHA approved respirator.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Ventilation: Provide adequate ventilation to maintain exposures below the OSHA PEL and ACGIH TLV for quartz and

other substances.

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 as required by the OSHA Respirator Standard 29 CFR 1910.134.

Other Protective Equipment: Eye and Face: Face shields should be used when sawing tile.

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

Other: Use of steel toe shoes is recommended when handling tile.

Other controls: Use of wet sawing methods is recommended anytime that roof tile must be cut.

SECTION VIII - FIRST AID AND MEDICAL

Inhalation: Remove from exposure to airborne particulates. Consult a physician if breathing does not return to normal.

Skin: Wash with soap and water. If a skin reaction causes irritation or a rash that does not heal within a few days consult a

physician. Treat abrasions as any other scrape or cut with disinfectants and bandages.

Eye: Flush with running water. Obtain medical assistance if irritation continues.

Medical Conditions
Aggravated by Exposure:

Excessive dust exposure may aggravate existing respiratory disorders or other sensitivities resulting in irritation

to respiratory tract, eyes and skin that may require medical consultation.

SECTION IX - OTHER REGULATIONS

RCRA: Roof tile in its solid form is typically considered a non-hazardous waste for disposal, but local regulation may

vary, therefore all waste must be disposed/recycled/reclaimed in accordance with federal, state, and local environmental control regulations. Water containing roof tile solids, such as from wet sawing operations, should also be

disposed of in accordance with federal, state and local environmental regulation.

EPCRA Section 311/312: Roof tile as shipped are not a Section 311/312 reportable product.

EPCRA Section 313: Roof tile as shipped are not subject to the Section 313, Toxic Chemical Release Inventory reporting requirements.

DOT: Roof tile as shipped are not hazardous materials per DOT regulations.

SECTION X - OTHER INFORMATION

Boral Roofing considers our product an "article" as defined in 30 CFR 1200(b)(6)(v) and (c) and 40 CFR 372.38(b). As an article, an MSDS is not required and the product is exempt from all other requirements of the hazard communication standard. OSHA requires an MSDS for tile because it is occasionally dry sawed. We recommend only wet sawing of the roof tile.

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