Effective Date: August 2010
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for
Types "M", N", "S" Stucco
& Roof Tile Cement

1. PRODUCT/COMPANY IDENTIFICATION

Manufacturer's Name & Address: Trade Name:

Types "M", "N", "S" Stucco & Roof Tile Cement

Titan Florida 11000 NW 121 Way Medley, FL 33178

Departments of Transportation Identification No: None

Telephone Number for Information: 1.800.458.4250 Emergency Telephone: 1.800.965.9896

2. COMPOSITION INFORMATION

MAJOR COMPOUNDS

<u>Chemical Name</u> <u>CAS Registry Number</u> <u>% in this cement product</u>

 Portland Cement
 65997-15-1
 55-65

 Calcium Carbonate
 1317-65-3
 30-35

 Gypsum (calcium sulfate)
 13397-24-5
 5

 Crystalline Silica
 14808 60-7
 0.01-7

(quartz and silica flour)

3. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point N/A
Specific Gravity (H2O = 1) N/A
Vapor Pressure (mm Hg) N/A
Melting Point N/A
Vapor Density (AIR-1) N/A
Evaporation Rate N/A

Solubility in Water Not soluble

pH (in water) (ASTM D 1293-95) 12

Appearance & Odor Odorless solid

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4. FIRE AND EXPLOSION HAZARD DATA

Flash Point N/A
Extinguishing Media N/A
Special Fire Fighting Procedures None
Unusual Fire & Explosion Hazards None
Flammable Limits N/A
LEL N/A
UEL N/A

5. REACTIVITY DATA

Stability: Stable. Avoid unintentional contact with water and incompatible materials.

Incompatibility: None known. Wet Types "M", "N", Stucco & Roof Tile Cement are alkaline.

Hazardous Decomposition or Byproducts:: Respirable dust particles may be generated when Types "M", "N", Stucco & Roof Tile

Cement are handled.

Hazardous Polymerization: Will not occur. No conditions to avoid.

6. HEALTH HAZARD DATA AND FIRST AID

EXPOSURE LIMITS:

Unless specified otherwise, limits are expressed as a time-weighted average (TWA) concentration for an 8-hour work shift of a 40-hour workweek. Limits for crisobalite and tridymite (other forms of crystalline silica) are equal to one-half the limits for quartz.

ABBREVIATIONS:

ACGIH TLV: Threshold limit value of the American Conference of Governmental Industrial Hygienists (ACGIH).

mg/m3: Milligrams of substance per cubic meter of air.

NIOSH REL: Recommended exposure limit of the National Institute for Occupational Safety and Health (NIOSH),

expressed as a TWA concentration for up to a 10-hour work day during a 40-hour workweek.

OSHA PEL: Permissible exposure limit of the federal Occupational Safety and Health Administration (OSHA)

Calcium Carbonate: OSHA PELs (respirable fraction) 5 mg/m³, (total dust) 15 mg/m³, ACGIL TLV (total dust) 10 mg/m³, NIOSH REL (respirable) 5 mg/m³, (total) 10 mg/m³.

Gypsum (Calcium Sulfate): OSHA PELs (respirable fraction) 5 mg/m³, (total dust) 15 mg/m³, ACGIH TLV (total dust) 10 mg/m³.

Crystaline Silica Si02: OSHA PEls (respirable fraction) [10 mg/m 3 ÷ (% SiO2+2)], (total dust) [30 mg/m 3 ÷ (% SiO2+2)], ACGIH TLV (respirable fraction) 0.05 mg/m 3 , NIOSH REL (respirable fraction) 0.05 mg/m 3 .

Other Particulates: OSHA PEL (total particulate, not otherwise regulated) 15 mg/m³, (respirable particulate, not otherwise regulated) 5 mg/m³, ACGIH TLV (nuisance particulates) 10 mg/m³ (inhalable), 5 mg/m³ (respirable).

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HEALTH HAZARDS:

Primary Route(s) of Entry)

Inhalation: Yes Skin: Yes Ingestion: No

Acute:

Eye Contact: Minor irritation to the eyes. Direct contact by larger amounts of material or splashes of wet material

may cause effects ranging from moderate eye irritation to chemical burns and blindness.

Inhalation: Dusts may irritate the nose, throat, and respiratory tract. Coughing, sneezing, and shortness of

breath may occur following exposures in excess of appropriate exposure limits.

Skin Contact: Exposure to dry material may cause drying of the skin with consequent mild irritation. Dry material

contacting wet skin or exposure to moist or wet material may cause more severe skin effects including thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of (caustic) chemical burns. Some individuals may exhibit an allergic response upon exposure to cement, possibly due to tract amounts of chromium. This response may appear in

a variety of forms ranging from a mild rash to severe skin ulcers.

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation and blockage.

Chronic:

Inhalation: Chronic exposure to respirable dust in excess of appropriate exposure limits may cause lung disease.

Silicosis may result from excessive exposure to respirable silica dust for prolonged periods. Not all individuals with silicosis will exhibit symptoms. Silicosis is progressive and symptoms can appear at any time, even after exposure has ceased. Symptoms may include shortness of breath, coughing, or right heart enlargement and/or failure. Persons with silicosis have an increased risk of pulmonary tuberculosis infection. Tobacco smoking may increase the risk of developing lung disorders, including

emphysema and lung cancer.

Carcinogenicity: Types of "M", "N", Stucco & Roof Tile Cement are not listed as carcinogens by the National Toxicology

Program (NTP), OSHA or the International Agency for Research on Cancer (IARC). However, crystalline silica is classified by IARC as a carcinogenic to humans (Group 1). The NTP has characterized respirable silica as "known to be a human carcinogen". Prolonged and repeated

breathing of silica may cause lung cancer.

Signs & Symptoms

of Exposure: Irritation of eyes, skin and/or respiratory system.

Medical Conditions Generally Aggravated

By Exposure: Inhaling respirable dust may aggravate existing respiratory system disease(s) and/or dysfunctions

such as emphysema or asthma. Exposure may aggravate existing skin and/or eye conditions.

EMERGENCY & FIRST AID PROCEDURES:

Eyes: Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s)

open. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if

irritation persists or later develops.

Inhalation: Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a

physician if irritation persists or later develops.

Skin: Wash with cool water and a pH-neutral soap or mild detergent intended for use on skin. Seek

medical treatment in all cases of prolonged direct exposure to wet cement, cement mixtures, liquids

from fresh cement products, or prolonged wet skin exposure to dry cement.

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Ingestion: Do not induce vomiting. If person is conscious, give large quantity of water. Get immediate medical

attention.

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7. PERSONAL PROTECTION AND CONTROL MEASURES

Ventilation: Local exhaust or general ventilation adequate to maintain exposures below appropriate exposure

imits.

Other: Respirable dust and silica levels should be monitored regularly. Dust and silica levels in excess of

appropriate exposure limits should be reduced by all feasible engineering controls, including (but

not limited to) ventilation, process enclosure, and enclosed employee work stations.

Respiratory

Protection: When dust or silica levels exceed or are likely to exceed appropriate exposure limits, follow

MSHA or OSHA regulations, as appropriate, for use of HIOSH-approved respiratory protection

equipment.

Skin Protection: Protective gloves, shoes and protective clothing that are impervious to water should be worn to

avoid contact with skin.

Eye Protection: Safety glasses with side shields should be worn as minimum protection. Dust goggles should be

worn when excessive (visible) dust conditions are present or anticipated. Contact lenses should

not be worn when working with this product.

Hygiene: Periodically wash exposed skin with a pH-neutral soap. Wash again before eating, drinking,

smoking, and using toilet facilities. Wash work clothes after each use. If clothing becomes

saturated with wet cement, it should be removed and replaced with clean, dry clothing.

8. STORAGE AND HANDLING PRECAUTIONS

Respirable silica and dust may be generated during processing, handling, and storage. The personal protection and controls identified in Section VII of the MSDS should be applied as appropriate.

Keep product dry until used.

Do not store or handle near food and beverages or smoking materials.

9. SPILL, LEAK AND DISPOSAL PRACTICES

The personal protection and controls identified in Section VII of the MSDS should be applied as appropriate.

Steps to Be Taken if Material Is Released or Spilled: Use dry clean-up methods which do not disperse dust into the air. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate personal protective equipment. Scrape up wet material and place in an appropriate container. Allow the material to "dry" before disposal.

Waste Disposal Method: Do not attempt to wash material down drains. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.

NOTICE: Based on research of available data, Titan Florida believes that the information contained in this Material Safety Data Sheet is accurate. The suggested procedures are based on data and experience as of the date of preparation of the MSDS. The suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules or insurance



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requirements. Titan Florida's voluntary preparation of this MSDS should not be construed, in any way, as an agreement to be subject to MSHA/OSHA jurisdiction, as applicable.