MATERIAL SAFETY DATA SHEET

1. Product Identification

Manufacturer

Name:	Trinidad Cement Limited
Address:	Southern Main Road, Claxton Bay Republic of Trinidad and Tobago
Phone:	(868) 659 2381/2
Emergency Telephone number:	990
Emergency Ambulance Service:	653:4545
San Fernando General Hospital	652:3581

Product Name and Data
Portland cement; Type I, II, III and V

Note: This MSDS covers many products. Individual composition of the hazardous constituents will vary

2. Information on Components

Component Name	%	CAS No.
Tri-calcium silicate	50-65	12168-85-3
Di-calcium silicate	10-25	10034-77-2
Tetra-calcium-alumino-sulphate	10-14	12068-35-8
Calcium sulphate	1-4	13397-24-5
Tri-calcium Aluminate	2-9	12042-78-3
Calcium Carbonate	0-5	1317-65-3
Magnesium Oxide	0-3	1309-48-4
Calcium Oxide	0-1	1305-78-8
Chromates	0-0.005	

3.Physical data

Boiling point – N/A.

Vapour Pressure – N/A.

Vapour de nsity – N/A
Solubility in water – Slight (0.1 to 1.0 %)

Specific gravity - ~3.15

Appearance and Odour – solid, grey powder; no odour.

Melting Point – N/A

4. Fire and Explosion Hazard Data

Flash Point: Portland Cements are non-combustible and not explosive

Flammable or explosive Limits: N/A

Extinguishing Media: N/A

Special Firefighting Procedures: N/A

Lower Explosive Limit: N/A

Upper Explosive Limit: N/A

5. Health Hazard Data

Component Name	Exposure Limits OSHA PEL TWA	ACGIH TLV TWA
Portland Cement (CAS 65997-15-1)		
(Respirable Dust)	5 mg/m^3	
(Total Dust)	10 mg/m^3	10 mg/m^3
Calcium sulphate	5 mg/m^3	
(Respirable dust)		
(Total Dust)	15 mg/m^3	10 mg/m^3
Calcium Carbonate	5 mg/m^3	
(Respirable Dust)		
(Total Dust)	15 mg/m^3	10 mg/m^3
Magnesium Oxide	10 mg/m^3	10 mg/m^3
Calcium Oxide	5 mg/m^3	2 mg/m^3
Crystalline Silica	0.1 mg/m^3	0.1 mg/m^3
(Respirable Dust)		
Chromates	0.1 mg (CrO_3)/m^3	0.05 mg (Cr)/m^3
Nuisance Dust (Respirable Dust)	5 mg/m^3	5 mg/m^3
(Total Dust)	15 mg/m^3	10 mg/m^3

6. Potential Health Effects

Inhalation (Acute):
Breathing dust may cause nose, throat or lung irritation and choking. The described effects depends on the degree of exposure.

Inhalation (Chronic):
Prolonged or repeated exposure may cause lung injury including silicosis. Product may contain crystalline silica, which is classified as a human carcinogen. Long term exposure resulting in silicosis may also lead to other health effects.

Eye Contact:
May cause eye irritation, severe burns and damage to the cornea

Skin Contact:
May cause dry skin, redness, discomfort, irritation, severe burns, allergic reactions and thickening of the skin (scleroderma).

Ingestion:
Ingestion of large amounts may cause intestinal distress.

7. First Aid Measures

Inhalation:
Move the individual to fresh air and seek medical attention.

Eye Contact:
Thoroughly rinse with water. Seek medical attention for any abrasions.

Skin Contact:
Wash the area with soap and water. Seek medical attention for burns. Use moisturizing creams for irritation.

Ingestion:
DO NOT INDUCE VOMITING. Drink plenty water. Seek medical attention.

8. Exposure Control and Personal Protection

Engineering Controls:
Use exhaust ventilation to maintain dust levels below exposure limits in workplaces with poor ventilation and dusty conditions.

Personal Protection:
Respiratory Protection
Under normal conditions no respiratory protection is required. A NIOSH approved respirator is recommended.

Eye Protection
Use tight fitting goggles/glasses in dusty environment to prevent contact with eyes. Contact lenses are not recommended.

Skin Protection
Use impervious, abrasion and alkali-resistant gloves, shoes and protective clothing to prevent skin contact. Barrier creams could also be used. After working with product workers should shower with soap and water.

Note: While every effort has been made to verify the accuracy and validity of the information contained in this MSDS, the user is obliged to determine the conditions for safe use of this product.