

# Material Safety Data Sheet

CS: 1.4.22

Infosafe No™ ACR8W Issue Date :May 2008 ISSUED by HILTI CS: 1.4.22

Product Name : **HILTI CM 651 TYPE A CEMENTITIOUS GROUT**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** HILTI CM 651 TYPE A CEMENTITIOUS GROUT  
**Company Name** HILTI (AUST.) PTY LTD  
**Address** 1G Homebush Bay Drive, Rhodes 2138  
**Telephone/Fax Number** Tel: (02) 8748-1000  
 Fax: (02) 8748-1190  
**Recommended Use** Non shrink cement grout.

## 2. HAZARDS IDENTIFICATION

**Hazard Classification** HAZARDOUS SUBSTANCE.  
 NON-DANGEROUS GOODS.  
 Hazard classification according to the criteria of NOHSC.  
 Dangerous goods classification according to the Australia Dangerous Goods Code.

**Risk Phrase(s)** R37/38 Irritating to respiratory system and skin.  
 R41 Risk of serious damage to eyes.

**Safety Phrase(s)** S22 Do not breathe dust.  
 S24/25 Avoid contact with skin and eyes.  
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Silica, Crystalline Quartz	14808-60-7	30-<60 %
	Portland cement	65997-15-1	30-<60 %
	Calcium oxide	1305-78-8	Trace <1%
	Other ingredients determined not to be hazardous	Not required	Balance
	Aluminium Powder	7429-90-5	Trace <1%
	Calcium sulfate	7778-18-9	Trace <1%

**Other Information** This product may contain hexavalent chromium (<7ppm) and a fraction of respirable crystalline silica (<0.1%).

## 4. FIRST AID MEASURES

**Inhalation** If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. If symptoms develop and persist, seek medical attention.

**Ingestion** DO NOT induce vomiting. Immediately wash out mouth with water. Seek medical attention.

**Skin** Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. Seek medical attention.

**Eye** If contact with the eye(s) occur, wash with copious amounts of water, holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention.

**First Aid Facilities** Eye wash and normal washroom facilities.

**Advice to Doctor** Treat symptomatically. For advice, contact a Poisons Information Centre (Phone 131 126).

## 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media** Use appropriate fire extinguisher for surrounding environment.

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**Hazards from Combustion Products** This product is not combustible.

**Specific Hazards** In contact with extinguishing water an alkaline solution is produced which can cause irritation.

**Precautions in connection with Fire** Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

**Other Information** Whilst the information provided indicates that this is an unlikely occurrence, freshly mixed product will generate minute traces of Hydrogen gas which may ignite in the presence of an ignition source in a confined space.

## 6. ACCIDENTAL RELEASE MEASURES

**Emergency Procedures** Increase ventilation. Wear sufficient respiratory protection and full protective clothing to minimise skin and eye exposure. Vacuum or sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust. Seal all wastes in vapour tight labelled plastic containers for eventual disposal. Avoid uncontrolled contact with water. If this material enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling** Avoid generation of dusts. Label containers. Keep containers closed when not in use. Wear appropriate protective equipment to prevent inhalation, skin and eye contact. Ensure a high level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking, smoking or using toilet facilities.

**Conditions for Safe Storage** Store in a cool, dry, well-ventilated area. Store protected from moisture in unopened, undamaged original packaging. Store in labelled, corrosion-resistant containers. Keep containers tightly closed.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**National Exposure Standards** No value assigned for this specific material by the Australian National Occupational Health and Safety Commission (NOHSC). However, the available exposure limits on the ingredients are as follows:  
The following National Occupational Health And Safety Commission (NOHSC) exposure limits apply:

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Portland cement	-	10	-	-
Silica, quartz	-	0.1	-	-
Dust, not otherwise specified	-	10	-	-

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

**Biological Limit Values** No biological limit allocated.

**Engineering Controls** Provide sufficient ventilation to keep airborne levels below the exposure limits. Where natural ventilation is inadequate, a local exhaust ventilation system, drawing dusts away from workers' breathing zone, is required.

**Respiratory Protection** If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of

# Material Safety Data Sheet

CS: 1.4.22

Infosafe No™ ACR8W	Issue Date :May 2008	ISSUED by HILTI	CS: 1.4.22
--------------------	----------------------	-----------------	------------

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<b>Eye Protection</b>	Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices. Safety glasses with side shield protection or chemical goggles should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
<b>Hand Protection</b>	Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
<b>Body Protection</b>	Wear protective clothing and impervious footwear. Apply barrier cream to hands or wear gloves complying with AS 2161. Wash thoroughly after handling. Wash clothes regularly and keep separate from other clothes.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Grey powder
<b>Melting Point</b>	> 1200°C
<b>Boiling Point</b>	Not applicable
<b>Solubility in Water</b>	Less than 5 g/L
<b>pH Value</b>	Alkaline as with cement 11-13
<b>Vapour Pressure</b>	Not applicable
<b>Vapour Density (Air=1)</b>	Not applicable
<b>Volatile Component</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Flammable Limits - Lower</b>	Not available
<b>Flammable Limits - Upper</b>	Not available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable, reacts slowly with water.
<b>Conditions to Avoid</b>	Avoid contact with moisture. Contact with water will result in hydration and produces (caustic) calcium hydroxide.
<b>Incompatible Materials</b>	Wet portland cement is alkaline. As such, it is incompatible with acids, ammonium salts and aluminium metal.
<b>Hazardous Decomposition Products</b>	Exposure to high temperatures (e.g. fire) will cause product to decompose into Calcium Oxide and Carbon Dioxide. At higher temperatures (e.g. above 870°C) quartz can change crystal structure to form tridymite or cristobalite.
<b>Hazardous Polymerization</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>Toxicology Information</b>	No toxicity data is available for this specific product.
<b>Inhalation</b>	Irritating to respiratory tract. Exposure may cause irritation to the moist mucous membranes of the nose, throat and upper respiratory system. Pre-existing upper respiratory and lung diseases may be aggravated by inhalation.
<b>Ingestion</b>	Ingestion of this product may cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.
<b>Skin</b>	Can cause severe irritation to skin resulting in redness and itching.

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<b>Eye</b>	Corrosive to ocular tissue. Risk of serious damage to eyes. Eye contact will cause stinging, blurring, tearing, severe pain and possible permanent corneal damage.
<b>Chronic Effects</b>	Prolonged dermal contact with wet cement may cause severe second or third degree burns, most commonly on the hands, feet, knees, or legs. Dry portland cement can cause inflammation of the lining of the nose and the cornea. Repeated exposure to portland cement may result in drying of the skin and may lead to thickening, cracking, or fissuring of the skin. Hypersensitive individuals may develop an allergic dermatitis (possibly due to trace amounts of hexavalent chromium at less than 0.005%). This reaction may appear in several forms including a mild rash to severe skin ulcers. Persons already sensitized may react to their first contact with the product. Other persons may experience this effect after years of exposure to this product.
<b>Carcinogenicity</b>	Cement products may contain crystalline silica as an impurity. Although present at below the 0.1% cut-off for carcinogenic risk, crystalline silica is classified as a Group 1 Human Carcinogen according to IARC (International Agency for Research on Cancer). Repeated exposure to respirable crystalline silica dust may lead to silicosis, a serious lung disease. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased, and may also lead to other diseases including heart disease and scleroderma.
<b>Other Information</b>	This product may also contain small amounts of chromium (VI) compounds. Chromium (VI) compounds may cause skin sensitization and should be regarded as if they are carcinogenic to humans.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Not available
<b>Persistence / Degradability</b>	Not available
<b>Mobility</b>	Not available
<b>Bioaccumulative Potential</b>	Not available
<b>Environ. Protection</b>	Do not allow product to enter drains, waterways or sewers.

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal Considerations</b>	Disposal should be in accordance with the relevant local, state and federal government regulations. Dispose of packaging/containers according to local, state and federal regulations.
<b>Waste Disposal</b>	Dispose of according to relevant local, state and federal government regulations.

## 14. TRANSPORT INFORMATION

<b>Transport Information</b>	Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
<b>IMDG Marine Pollutant (MP)</b>	This material is not classified as a MARINE POLLUTANT according to the International Maritime Dangerous Goods (IMDG) Code.

## 15. REGULATORY INFORMATION

<b>Regulatory Information</b>	Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
<b>Poisons Schedule</b>	Not Scheduled
<b>Hazard Category</b>	Irritant

## 16. OTHER INFORMATION

## Material Safety Data Sheet

CS: 1.4.22

Page: 5 of 5

Infosafe No™ ACR8W	Issue Date :May 2008	ISSUED by HILTI	CS: 1.4.22
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Product Name : **HILTI CM 651 TYPE A CEMENTITIOUS GROUT****Date of preparation** MSDS Review: May 2008**or last revision of** Supersedes: May 2003**MSDS****Contact Person/Point** For further information call Hilti (Aust) Pty. Ltd. on: (02) 8748 1000  
(Business Hours).  
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