

MATERIAL SAFETY DATA SHEET

According to NOHSC: 2011 (2003) and HSNO CoP 8-1 (September 2006)

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **MASTERFLOW 870**

Other name: None allocated

Recommended use: Shrinkage compensated, natural aggregate precision grout.

Supplier: BASF New Zealand Ltd.

Address: 45 William Pickering Drive,
Albany, Auckland,
New Zealand

Telephone number: +64 9 414 7233

Facsimile: +64 9 414 7244

Emergency telephone number: +61 417 658 263

2. HAZARDS IDENTIFICATION

Hazard classification: HAZARDOUS SUBSTANCE. NON DANGEROUS GOODS.
Hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

Hazard Designation: Xi - Irritant
Silica, Crystalline Quartz – Human Carcinogen

HSNO Classification

6.3A	Irritating to the skin
6.5B	Contact sensitizer (dermal)
6.9	Irritating to the respiratory system
8.3A	Causes serious damage to eyes

Risk phrase(s): R37/38 Irritating to respiratory system and skin.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.

Safety phrase(s): S2 Keep out of reach of children.
S26 In case of contact with skin and eyes, rinse immediately with plenty of water and seek medical advice.
S37/39 Wear suitable protective gloves and eye/face protection.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Proportion</u>
Quartz filler blend	14808-60-7	30 - 60%
Portland cement	65997-15-1	30 – 60%
Hexavalent Chromium (contamination from cement)		Very low
Non hazardous ingredients		to 100%

4. FIRST AID MEASURES

Inhalation: Avoid breathing dust. Use in well ventilated areas. If inhalation does occur, remove victim from exposure. If difficulty with breathing, administer oxygen. If breathing has stopped administer artificial respiration. Seek medical attention.

Eyes: While holding eyes open, gently flood with plenty of fresh water for 15 minutes. Seek medical attention. Skilled personnel should only undertake removal of contact lenses after an eye injury.

Skin: Remove contaminated clothing. Remove excess from skin mechanically. Wash contacted areas thoroughly with soap and water. If irritation develops seek medical

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attention. Wash contaminated clothing before re-use.

Ingestion:

Not a normal route of injury. Do not induce vomiting; give large quantities of water; get immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquids into lungs. Do NOT give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: As for surrounding fire.

Hazards from combustion products: Not normally combustible. Possible release of CO₂ above 600°C.

Precautions/equipment for fire fighters: As for surrounding fire.

Hazchem code: None allocated

6. ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and clean up: Spills should be carefully swept up and then shovelled into appropriately labelled containers. Disposal should be effected by an approved waste disposal organisation according to local regulations.

Environmental precautions: Do not allow to enter into drains, sewers or waterways.

7. HANDLING AND STORAGE

Precautions for safe handling: Wear personal protective equipment (PPE) as per Section 8. Provide for good ventilation. Avoid inhalation of dust. Avoid skin contact.

Conditions for safe storage: Keep containers tightly closed; store under cool dry conditions. Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Ensure adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particles below the OEL (Occupational Exposure Limit), suitable respiratory protection must be worn.

Exposure Standards

Silica, Crystalline - Quartz (14808-60-7)
ES-TWA: 0.1 mg/m³ (Silica Quartz, respirable, NOHSC)
ES-TWA#: 0.1 mg/m³ (QLD); 0.15 mg/m³ (NSW)
NZ WES-TWA: 0.2 mg/m³

Portland Cement (65997-15-1)
ES-TWA: 10 mg/m³ Portland Cement
ES-TWA#: 0.05 mg/m³ Chromium (VI) Compounds (contaminant)
NZ WES-TWA: 10 mg/m³

Hexavalent Chromium (Contaminant)
ES-TWA: 0.05 mg/m³
NZ WES-TWA: 0.05 mg/m³

Personal Protective Equipment (PPE):

Respiratory protection: At high dust levels, wear a Class P3 (Particulate) respirator or a Powered Air Purifying Respirator (PAPR) with Class P3 (Particulate) filter. Where an inhalation risk exists, wear a Class P1 (Particulate) Respirator.

Glove type (AS2161): Impervious gloves e.g. PVC or nitrile rubber gauntlets.

Eye protection: Chemical worker's goggles, well fitting safety glasses or full face shield.

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<u>Clothing:</u>	No special clothing required but overalls are suggested as a general precaution, especially where heavy contamination is likely.
<u>Other:</u>	Use barrier creams to protect skin from contact with the material. Do not eat drink or smoke while working with the material. Always wash hands before smoking, eating, drinking or using the toilet and after finishing work. Observe the usual precautions when handling chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Appearance:</u>	Grey powder
<u>Odour:</u>	Cement-like
<u>pH:</u>	11 – 13 (aqueous solution)
<u>Solubility in water:</u>	Insoluble
<u>Specific gravity:</u>	approx. 2.20 g/cm ³
<u>Melting point:</u>	> 1200°C
<u>Flash point:</u>	Not applicable

10. STABILITY AND REACTIVITY

<u>Chemical stability:</u>	Normally stable when stored in original sealed containers in cool dry conditions. Not sensitive to mechanical impact.
<u>Incompatible materials:</u>	Acids and strong oxidisers.
<u>Hazardous decomposition products:</u>	May evolve toxic gases if heated to decomposition.
<u>Hazardous reactions:</u>	Exothermic reaction with acids, possible release of CO ₂ .

11. TOXICOLOGICAL INFORMATION

<u>Health Hazard Summary:</u>	Slightly corrosive. Avoid eye or skin contact or dust inhalation. This product has the potential to cause acute and chronic health effects with over exposure. Crystalline silica can cause silicosis (lung disease) with chronic over exposure. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1).
<u>Inhalation:</u>	Slightly corrosive. Over exposure may result in severe mucous membrane irritation & bronchitis. Hexavalent chromium is reported to cause respiratory sensitisation, however due to the trace amount present; a hazard is not anticipated under normal conditions of use.
<u>Eyes:</u>	Corrosive. Severe irritant upon contact with powder/ dust. Over exposure may result in pain, redness, corneal burns and ulceration with possible permanent damage.
<u>Skin contact:</u>	Slightly corrosive. Prolonged and repeated contact with powder or wetted form may result in skin rash, dermatitis and sensitisation.
<u>Ingestion:</u>	Slightly corrosive. Ingestion may result in burns to the mouth and throat, with vomiting and abdominal pain. Due to product form, ingestion is not considered a likely exposure route.
<u>Toxicity Data:</u>	Silica, Crystalline - Quartz (14808-60-7) Carcinogenicity: Classified as a human carcinogen (IARC Group 1) Hexavalent Chromium (Contaminant) (Not Available) Carcinogenicity: Confirmed human carcinogen (IARC Group 1) Health Surveillance: Required [NOHSC:1005(1994)]

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12. ECOLOGICAL INFORMATION

<u>Ecotoxicity:</u>	Do not discharge into drains, sewers or waterways because of the high alkalinity. Due to its alkalinity this product is harmful to fish and other aquatic life forms. Degradability not determined.
<u>Aquatic toxicity</u>	Not available

13. DISPOSAL CONSIDERATIONS

<u>Disposal method and containers:</u>	Ensure containers are sealed. Avoid dust generation. Dispose of to an approved land fill site. Refer to Waste Management Authority.
<u>Special precautions (landfill/incineration):</u>	None known

14. TRANSPORT INFORMATION

<u>UN number:</u>	None allocated
<u>UN proper shipping name:</u>	None allocated
<u>Dangerous goods class:</u>	None allocated
<u>Subsidiary risk:</u>	None allocated
<u>Packing group:</u>	None allocated
<u>Hazchem code:</u>	None allocated

15. REGULATORY INFORMATION

NICNAS / AICS:	All components are listed
Poisons Schedule:	Not Scheduled
HSNO Classifications:	6.3A, 6.5B, 6.9, 8.3A
ERMA Group Standard:	HSR002544
ERMA / NZIoC:	All components are listed
Tracking:	Not required
Approved Handler:	Not required

16. OTHER INFORMATION

Reason for issue: Update to New Zealand MSDS.

Cement Contact Dermatitis: Individuals using wet cement, mortar, grout or concrete could be at risk of developing cement contact dermatitis. Symptoms of exposure include itchy, tender, swollen, hot, cracked or blistering skin with the potential for sensitisation. The dermatitis is due to the presence in the cement, of soluble hexavalent chromium.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request. All information contained in this MSDS is as accurate and up-to-date as possible. No warranty expressed or implied is made as to its accuracy, reliability or completeness.