

UNCONTROLLED

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 1 of 11

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

STAMPCRETE MP

SYNONYMS

stamped concrete ingredient
MP- 01

Cobblestone Paving
MP- 56

PRODUCT USE

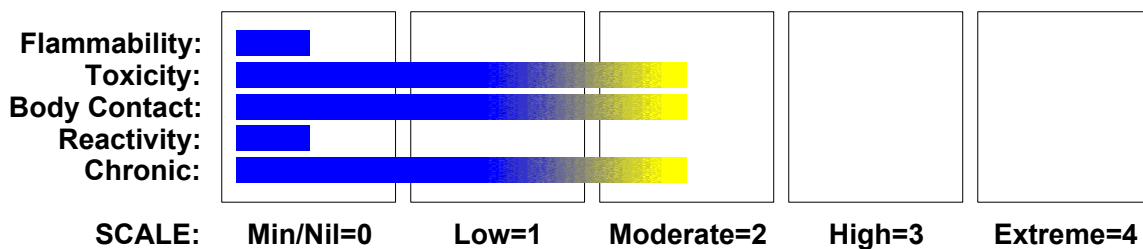
To provide a hard coloured or multi-coloured hardened surface to fresh concrete.

SUPPLIER

Company: Cobblestone Paving Australia P/L
Address:
PO Box 2057
Burleigh Mdc, Gold Coast
QLD, 4220
AUS

Company: Cobblestone Paving Australia P/L
Address:
45 Alex Fisher Drive
Burleigh Gardens
QLD, 4220
AUS
Telephone: +61 7 5593 7766
Fax: 07 5593 7777

HAZARD RATINGS



Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

According to the Criteria of NOHSC, and the ADG Code.



continued...

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 2 of 11

Section 2 - HAZARDS IDENTIFICATION ...

POISONS SCHEDULE

None

RISK

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Inhalation may produce health damage*.

Cumulative effects may result following exposure*.

May produce discomfort of the eyes and skin*.

Possible respiratory and skin sensitiser*.

* (limited evidence)

SAFETY

Do not breathe dust.

Wear eye/face protection.

Use only in well ventilated areas.

Keep container in a well ventilated place.

Take off immediately all contaminated clothing.

In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

If you feel unwell contact Doctor or Poisons Information Centre. (Show the label if possible).

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
graded sand	14808-60-7	>50
cement		30-40
pigment		1-10
dispersant		<1
synthetic polymer		<1
may contain trace quantities of silica crystalline - quartz	14808-60-7	

NOTE: Manufacturer has supplied full ingredient information to allow CHEMWATCH assessment.

Section 4 - FIRST AID MEASURES

SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

continued...

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 3 of 11

Section 4 - FIRST AID MEASURES ...

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear breathing passages.
- Ask patient to rinse mouth with water but to not drink water.
- Seek immediate medical attention.

NOTES TO PHYSICIAN

Treat symptomatically as for strong alkaline material.

Section 5 - FIRE FIGHTING MEASURES

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- Non combustible.
 - Not considered a significant fire risk, however containers may burn.
- Decomposes on heating and produces toxic fumes of caustic compounds

FIRE INCOMPATIBILITY

None known

HAZCHEM

None

Personal Protective Equipment

Glasses:
Chemical goggles.

continued...

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 4 of 11

Section 5 - FIRE FIGHTING MEASURES ...

Gloves:
PVC chemical resistant type.

Respirator:
Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.
- Sweep up or
- Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
- Place in clean drum then flush area with water.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- If inhalation risk of exposure exists, wear SAA approved dust respirator.
- Collect recoverable product into labelled containers for recycling.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

other than mild, transient adverse effects without perceiving a clearly defined odour is:

American Industrial Hygiene Association (AIHA)

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid generating and breathing dust.
- Limit all unnecessary personal contact.
 - Wear protective clothing when risk of exposure occurs.
 - Use in a well-ventilated area.
 - Atmosphere should be checked against exposure standards
 - Avoid contact with incompatible materials.

continued...

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 5 of 11

Section 7 - HANDLING AND STORAGE ...

- When handling, DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.

SUITABLE CONTAINER

Multi ply paper bag with sealed plastic liner or heavy gauge plastic bag

NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks. Packing as recommended by manufacturer.

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers and strong acids

STORAGE REQUIREMENTS

Keep dry . Keep containers securely sealed when not in use.

Absorbs water and carbon dioxide from the air.

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

None assigned. Refer to individual constituents.

EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

Composite Exposure Standard for Mixture (TWA) :0.05 mg/m³.

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Conc (%)

Component	Breathing Zone (mg/m ³)	Mixture Conc (%)
silica crystalline - quartz	0.0500	0.1

INGREDIENT DATA

GRADED SAND:

NOTE: This product contains negligible amount of respirable dust.

continued...

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 6 of 11

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

SILICA CRYSTALLINE - QUARTZ:

TLV TWA: 0.05 mg/m³ (R) Quartz A2 [ACGIH]

PEL: (Quartz (Respirable)) [OSHA Z3]250 / (%SiO₂+5) mppcf

Footnote (b): The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.

PEL: (Quartz (Respirable)) [OSHA Z3]10 / (%SiO₂+2) mg/m³

Footnote (e): Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector with the following characteristics.

Aerodynamic diameter (unit density sphere)	Percent passing selector
2.0	90
2.5	75
3.5	50
5.0	25
10	0

The measurements under this note refer to the uses of an AEC (now NRC) instrument. The respirable fraction of coal dust is determined with an MRE; the figures corresponding to that of 2.4 mg/m³ in the table for coal dust, is 4.5 mg/m³.

PEL: (Quartz (Total Dust)) [OSHA Z3]30 / (%SiO₂ + 2) mg/m³

TLV TWA: 0.05 mg/m³ (respirable dust) A2

The concentration of respirable dust for application of this limit is to be determined from the fraction that penetrates a separator whose size collection efficiency is described by a cumulative lognormal function with a median aerodynamic diameter of 4.0 µm (+-) 0.3 µm and with a geometric standard deviation of 1.5 µm (+-) 0.1 µm, i.e. generally less than 5 µm.

WARNING: For inhalation exposure ONLY:

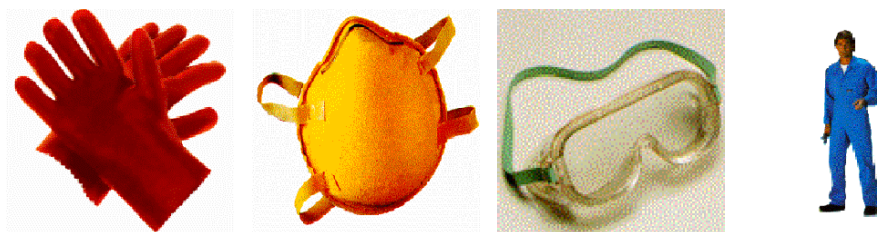
This substance has been classified by the ACGIH as A2 Suspected Human Carcinogen.

ES TWA: 0.2 mg/m³

MEL TWA: 0.3 mg/m³ (respirable dust)

Because the margin of safety of the quartz TLV is not known with certainty and given the associated link between silicosis and lung cancer it is recommended that quartz concentrations be maintained as far below the TLV as prudent practices will allow.

PERSONAL PROTECTION



EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS/FEET

Wear chemical protective gloves. eg. PVC gloves with barrier cream
Wear safety footwear.

continued...

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 7 of 11

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

OTHER

- Overalls.
 - Eyewash unit.
- Ensure there is ready access to a safety shower

ENGINEERING CONTROLS

Use in a well-ventilated area.

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air)	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range

- 1: Room air currents minimal or favourable to capture
- 2: Contaminants of low toxicity or of nuisance value only
- 3: Intermittent, low production.
- 4: Large hood or large air mass in motion

Upper end of the range

- 1: Disturbing room air currents
- 2: Contaminants of high toxicity
- 3: High production, heavy use
- 4: Small hood - local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or

continued...

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 8 of 11

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

used.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Fine coloured powder; insoluble in water.

PHYSICAL PROPERTIES

Solid.
Does not mix with water.
Sinks in water.

Molecular Weight: Not applicable
Melting Range (°C): Not available
Solubility in water (g/L): Immiscible
pH (1% solution): >7
Volatile Component (%vol): Not applicable
Relative Vapour Density (air=1): Not applicable
Lower Explosive Limit (%): Not applicable
Autoignition Temp (°C): Not applicable
State: Divided solid

Boiling Range (°C): Not applicable
Specific Gravity (water=1): >1
pH (as supplied): Not applicable
Vapour Pressure (kPa): Not applicable
Evaporation Rate: Not applicable
Flash Point (°C): Not applicable
Upper Explosive Limit (%): Not applicable
Decomposition Temp (°C): Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments.
The material is discomforting to the gastro-intestinal tract and may be harmful if swallowed

EYE

The solid/dust is highly discomforting, may be abrasive to the eyes and is capable of causing a mild, temporary redness of the conjunctiva (similar to wind-burn), temporary impairment of vision and/ or other transient eye damage/ulceration

SKIN

The dust is highly discomforting to the skin and is capable of causing skin reactions which may lead to dermatitis.
Handling wet cement can cause dermatitis. Cement when wet is quite alkaline and this alkali action on the skin contributes strongly to cement contact dermatitis

continued...

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 9 of 11

Section 11 - TOXICOLOGICAL INFORMATION ...

since it may cause drying and defatting of the skin which is followed by hardening, cracking, lesions developing, possible infections of lesions and penetration by soluble salts.

Cement contact dermatitis (CCD) may occur when contact shows an allergic response, which may progress to sensitisation. Sensitisation is due to soluble chromates (chromate compounds) present in trace amounts in some cements and cement products. Soluble chromates readily penetrate intact skin. Cement dermatitis can be characterised by fissures, eczematous rash, dystrophic nails, and dry skin; acute contact with highly alkaline mixtures may cause localised necrosis.

INHALED

The dust is discomforting to the upper respiratory tract and lungs and may even cause in some cases, sensitisation.

Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

Effects on lungs are significantly enhanced in the presence of respirable particles. Overexposure to respirable dust may produce wheezing, coughing and breathing difficulties leading to or symptomatic of impaired respiratory function.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts. Long term inhalation of dusts containing crystalline silicas may lead to silicosis. Effects are cumulative, with nodular fibrosis, respiratory impairment, emphysema, even restriction, obstruction of lung function in severe cases. Chronic symptoms produced by crystalline silicas included decreased vital lung capacity and chest infections. Lengthy exposure may cause silicosis, a disabling form of pneumoconiosis which may lead to fibrosis, a scarring of the lining of the air sacs in the lung. Symptoms may appear 8 to 18 months after initial exposure. Smoking increases this risk. Classic silicosis is a chronic disease characterised by the formation of scattered, rounded or stellate silica-containing nodules of scar tissue in the lungs ranging from microscopic to 1.0 cm or more. The nodules isolate the inhaled silica particles and protect the surrounding normal and functioning tissue from continuing injury. Simple silicosis (in which the nodules are less than 1.0 cm in diameter) is generally asymptomatic but may be slowly progressive even in the absence of continuing exposure. Simple silicosis can develop in complicated silicoses (in which nodules are greater than 1.0 cm in diameter) and can produce disabilities including an associated tuberculous infection (which 50 years ago accounted for 75% of the deaths among silicotic workers). The question of potential carcinogenicity associated with chronic inhalation of crystalline silica remains equivocal with some studies supporting the proposition and others finding no significant association. The results of recent epidemiological studies suggest that lung cancer risk is elevated only in those patients with overt silicosis. Chronic inhalation in rats by single or repeated intratracheal instillation produced a significant increase in the incidences of adenocarcinomas and squamous cell carcinomas of the lung. Lifetime inhalation of crystalline silica (87% alpha-quartz) at 1 mg/m³ (74% respirable) by rats, produced an increase in animals with keratinising cystic squamous cell tumours, adenomas, adenocarcinomas, adenosquamous cell carcinomas, squamous cell carcinoma and nodular bronchiolar alveolar hyperplasia accompanied by extensive subpleural and peribronchiolar fibrosis, increased pulmonary collagen content, focal lipoproteinosis and macrophage infiltration. Thoracic and abdominal malignant lymphomas developed in rats after single intrapleural and intraperitoneal injection of suspensions of several types of quartz.

NOTE: Some jurisdictions require health surveillance be conducted on workers occupationally exposed to silica, crystalline. Such surveillance should emphasise • demography, occupational and medical history and health advice • standardised respiratory function tests such as FEV₁, FVC and FEV₁/FVC • standardised respiratory function tests

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STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 10 of 11

Section 11 - TOXICOLOGICAL INFORMATION ...

such as FV1, FVC and FEV1/FVC • chest X-ray, full size PA view (v) records of personal exposure. As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

Stampcrete MP

Not available. Refer to individual constituents.
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

GRADED SAND:

No data of toxicological significance identified in literature search.

SILICA CRYSTALLINE - QUARTZ:

TOXICITY

Inhalation (human)LCLo:0.3 mg/m³/10Y

Inhalation (human)TCLo:16 mppcf*/8H/17.9Y

- Intermittent; focal fibrosis, (
50 mg/m³/6H/71W

* Millions of particles per cubic foot (based on impinger samples counted by light field techniques).

WARNING: For inhalation exposure ONLY: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS

NOTE : the physical nature of quartz in the product determines whether it is likely to present a chronic health problem. To be a hazard the material must enter the breathing zone as respirable particles.

IRRITATION

Nil reported

(pneumoconiosis), cough, dyspnoea

- Intermittent; liver - tumours.

Section 12 - ECOLOGICAL INFORMATION

No data for Stampcrete MP.
Refer to data for ingredients, which follows:

GRADED SAND:

No data for graded sand.

SILICA CRYSTALLINE - QUARTZ:

No data for silica crystalline - quartz.

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

Shipping Name:

continued...

STAMPCRETE MP

ChemWatch Material Safety Data Sheet
Issue Date: Thu 2-Aug-2001

CHEMWATCH 4706-75
CD 2004/3 Page 11 of 11

Section 14 - TRANSPORTATION INFORMATION ...

NONE
Dangerous Goods Class: None
UN/NA Number: None
ADR Number:
Packing Group: None
Labels Required:
Additional Shipping Information:
International Transport Regulations:
IMO: None

HAZCHEM

None

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

None

REGULATIONS

No data available for silica crystalline - quartz (CAS: 14808-60-7).

Section 16 - OTHER INFORMATION

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