



# CRUSHED CONCRETE

Date	Sep 07
Issue	001

MSDS 01

## National Code of Practice for the Preparation of Material Safety Data Sheets

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND SUPPLIER

**Product Name:** CRUSHED CONCRETE – CLASS 2 AND CLASS 3

**Recommended use:** Crushed concrete and rock for use as a road base material (Class 2 and 3), hard stand areas, under concrete slabs, bedding material and backfilling (all Class 3).

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### 2. HAZARDS IDENTIFICATION

#### NON-HAZARDOUS SUBSTANCE – NON DANGEROUS GOOD

**Risk phrases:** None allocated

**Safety phrases:** None allocated

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Chemical Nature:

Crushed concrete is composed of rock fragments coated with cement with or without Reclaimed Asphalt (RAP), sands and / or fillers produced in a controlled manner to close tolerances of grading and minimum foreign material content.

Foreign Material Type	Class 2 – Maximum Allowable %	Class 3 – Maximum Allowable %
High density materials such as metal, glass and brick	2 %	3 %
Low density materials such as plastic, rubber, plaster, clay clumps and other friable material	0.5 %	1 %
Wood and other vegetable or decomposable matter	0.1 %	0.2 %



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#### 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26.

##### **Swallowed:**

If conscious, dilute stomach contents by giving large amounts of water. Seek medical attention. Do not attempt to induce vomiting or give anything by mouth to an unconscious person.

##### **Eye:**

Flush eyes with plenty of water for a minimum of 15 minutes. Keep rotating the eyes to ensure complete flushing of all particles. Seek medical attention promptly if irritation persists or any abrasions / burns occur.

##### **Skin:**

Remove contaminated clothing. Wash skin thoroughly with cool water and mild soap or detergent. Launder contaminated clothing before re-use. Seek medical advice if rash, irritation or dermatitis occurs.

##### **Inhaled:**

Remove affected person promptly to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.

##### **Notes to doctor:**

The three types of silicosis include:

- Simple chronic silicosis results from long-term exposure (> 20 years) to low amounts of respirable silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lung and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD).
- Accelerated silicosis occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5 – 15 years). Inflammation, scarring and symptoms progress faster in accelerated silicosis than in simple silicosis.
- Acute silicosis results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels.

Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

#### 5. FIRE FIGHTING MEASURES

##### **Extinguishing media:**

Use extinguishing media appropriate for surrounding fire.

##### **Fire fighting procedures:**

The product is non-combustible and will not burn. Avoid breathing dust. Crushed concrete does not pose a fire-related hazard. Firefighters must wear self-contained breathing apparatus to limit exposure to combustion products when fighting any fire.

**Hazardous Decomposition Products:** None.



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#### 6. ACCIDENTAL RELEASE MEASURES

##### General Measures:

Dampen spills if possible. Sweep up spilled material carefully and place in a container. Avoid actions that cause the concrete dust to become airborne. Avoid inhalation of concrete dust. Prevent run-off into drains and waterways. Wear appropriate protective equipment as described in Section 8. Reuse crushed concrete wherever possible.

##### Waste Disposal Methods:

Dispose of crushed concrete according to federal, state or local regulations

#### 7. HANDLING AND STORAGE

##### Precautions for Safe Handling:

Ensure adequate load-bearing capacity of ground, floors or platforms when storing crushed concrete. Crushed concrete is heavy and poses risks such as sprains and strains to the back, arms, shoulders and legs during lifting. Handle with care and use appropriate control measures.

##### Conditions for Safe Storage:

Avoid actions that cause the concrete dust to become airborne during clean-up such as dry sweeping or using compressed air. Do not store near food or beverages.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### National occupational exposure standards

Exposure to dry concrete dust should be kept as low as practicable. The product contains low levels of crystalline silica (< 15%), but the amount of respirable quartz in the respirable fraction of the dust was not detected.

Substance	TWA	STEL	Carcinogen Category	Notices
Crystalline silica (quartz)	0.1 mg/m <sup>3</sup>	None allocated	None allocated	None allocated
Particulates (dust)	10 mg/m <sup>3</sup>	None allocated	None allocated	None allocated

As published by Australian Safety and Compensation Council.

Exposure Standard (TWA) is the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health nor cause undue discomfort to nearly all workers.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These Exposure Standards should not be used as fine dividing lines between safe and dangerous concentrations of dust. They are not a measure of relative toxicity.

##### Engineering controls:

Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure standards.



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### National Code of Practice for the Preparation of Material Safety Data Sheets Personal Protection

**Skin:** Wear leather gloves or similar when handling crushed concrete. Remove clothing and protective equipment that becomes dusty and launder before re-using.

**Eye:** Wear approved safety glasses or goggles when handling crushed concrete and when involved with activities that generate dust, to prevent contact with eyes. Avoid wearing contact lenses when using crushed concrete.

**Respiratory:** Under normal conditions no respiratory protection is required. Wear an approved disposable dust mask (Class P1 or P2) when exposed to dust above exposure standards.

Protective clothing (gloves, coveralls, boots, etc.) should be worn to prevent skin contact. Direct skin contact should be avoided by wearing long sleeved shirts and long trousers. Always wash hands before smoking, eating, drinking or using the toilet. Launder contaminated clothing and other protective equipment before storing or re-using.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	grey, granular solid with no odour
<b>Boiling Point:</b>	not determined
<b>Melting Point:</b>	not determined
<b>Vapour pressure:</b>	not applicable
<b>Bulk density:</b>	approx. 1600 kg/m <sup>3</sup> (20°C)
<b>Maximum Dry Density:</b>	approx. 2010 kg/m <sup>3</sup> (20°C)
<b>Flash Point:</b>	not flammable
<b>Flammability Limits:</b>	not flammable
<b>Autoignition temperature:</b>	not applicable
<b>Solubility in water:</b>	insoluble

## 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable.
<b>Hazardous reactions:</b>	None known.
<b>Incompatible materials:</b>	None known.
<b>Conditions to avoid:</b>	None.
<b>Hazardous decomposition products:</b>	None.

## 11. TOXICOLOGICAL INFORMATION

**Swallowed:** Unlikely under normal occupational exposures. Although ingestion of small quantities of concrete is not known to be harmful, large quantities can cause distress to the digestive tract.

**Eye:** Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of concrete dust can cause moderate eye irritation and abrasion. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.



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**Skin:** Concrete dust may cause dry skin, discomfort, irritation and dermatitis. Concrete dust, in association with sweat and friction, can lead to skin irritation and dermatitis. Skin affected by dermatitis may include symptoms such as redness, itching, rash, scaling and cracking. Irritant dermatitis is caused by the physical properties of concrete dust such as abrasion.

**Inhaled:** Breathing dust may cause nose, throat or lung irritation, including choking, depending on the degree of exposure. Individuals with an existing lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) can be aggravated by exposure.

**Chronic:** Risk of injury depends on duration and level of exposure. The product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica can cause silicosis, a seriously disabling and fatal lung disease. See Section 4 for further information.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Not expected to be toxic to aquatic organisms.

**Persistence and degradability:** The product is resistant to degradation and will persist in the environment.

**Mobility in soil:** The product contains non-volatile materials that will sink in water and form a solid on the surface of the ground. Not expected to be mobile in landfill.

## 13. DISPOSAL CONSIDERATIONS

### Disposal Method:

Dispose of waste and containers in compliance with applicable federal, state and local regulations. Suitable for disposal to landfill sites. Keep out of stormwater and sewer drains.

## 14. TRANSPORT INFORMATION

### Road and Rail Transport (Australian Dangerous Goods Code):

**UN Number:** None allocated  
**Proper Shipping Name:** None allocated  
**Class:** None allocated  
**Hazchem Code:** None allocated  
**Packing Group:** None allocated

### Marine Transport (International Maritime Dangerous Goods Code):

**UN Number:** None allocated  
**Proper Shipping Name:** None allocated  
**Class:** None allocated  
**Packing Group:** None allocated  
**Marine Pollutant:** No



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### National Code of Practice for the Preparation of Material Safety Data Sheets Air Transport (International Air Transport Association Dangerous Goods Regulations):

**UN Number:** None allocated  
**Proper Shipping Name:** None allocated  
**Class:** None allocated  
**Packing Group:** None allocated

### 15. REGULATORY INFORMATION

#### Australian Inventory of Chemical Substances (AICS):

All components are either listed on the inventory or are exempt under the Industrial Chemicals (Notification and Assessment) Act 1989.

#### Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP):

Not scheduled.

### 16. OTHER INFORMATION

#### Australian Standards References:

AS/NZS 1336 Recommended Practices for Occupational Eye Protection.  
AS/NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices.  
AS/NZS 1716 Respiratory Protective Devices.  
AS 2161 Industrial Safety Gloves and Mittens (excluding electrical and medical gloves).

This Material Safety Data Sheet has been prepared by Hodson & Associates Pty Ltd.

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**Issue Date:** 24/SEP/07/AH **Supersedes Issue Date:** None

**Reasons for Issue:** New issue.

This Material Safety Data sheet is valid for 5 years from the date of issue and may be withdrawn and revised any time prior to that date. Please ensure that you are using the latest issue.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Alex Fraser Recycling Industries Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.