



# Safety Data Sheet

## Recycled Crushed Concrete Aggregate

### Section 1 - Identification: Product identifier and chemical identity

<b>Product identifier:</b>	Crushed concrete and bricks.
<b>Other means of identification:</b>	Recycled aggregate, recovered aggregate, crushed concrete and bricks.
<b>Recommended uses:</b>	Construction works and other civil engineering activities, preferably as select fill or an underlying layer.
<b>Manufacturer:</b>	Processed by a Port Macquarie-Hastings Council contractor with raw materials supplied by commercial and domestic sources from the local government area.
<b>Emergency phone number:</b>	PMHC: (02) 6581 8111 or 0438 667 492 or Poisons Information Centre: 13 11 26.

### Section 2 – Hazard(s) identification

Crushed concrete and bricks contain crystalline silica compounds which may be harmful when inhaled. Crystalline silica dust may cause damage to organs through prolonged or repeated exposure.

<b>Signal Word</b>	WARNING
<b>Hazard Statement</b>	H333: May be harmful when inhaled.  May cause irritation of eyes and skin through mechanical abrasion.
<b>Prevention Statement</b>	P260: Do not breathe dust.  P280: Wear eye protection/face protection.
<b>Response Statement</b>	P305 + P351 + P338:  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  P342 + P311:  If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.



### Section 3 - Composition and information on ingredients

<b>Chemical nature</b>	Crushed concrete and bricks is composed of recycled concrete, bricks and ceramics which are crushed to a nominal size. The material is predominantly made up of concrete with smaller percentages of brick and ceramics. Although screened for contaminants, a very small fraction of these may be found which may include metal, rubber, plastic, paper, cloth, paint, wood and other vegetable matter. All material is tested to meet the <i>Recovered Aggregate Order (RRO) 2014</i> .
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Ingredients	Content Percentage*
Concrete of various grades containing cement (limestone, clay and gypsum) and natural aggregates (rock and sand)	90-100%
Bricks	<10%
Ceramics	<10%
Contaminants - Metal, rubber, plastic, paper, cloth, paint, wood and other vegetable matter	<0.3%

*\*Sampling has not been undertaken to determine concrete, bricks and ceramic content percentage. Estimate based on visual inspection. Contaminants meet the RRO 2014.*

### Section 4 - First-aid measures

Description of necessary first aid measures	<p>If material is in eyes, flush eyes with running water thoroughly.</p> <p>If inhaled, move to a well ventilated area away from material and contact the Poisons Information Centre or a doctor.</p> <p>If ingested, contact the Poisons Information Centre or a doctor.</p>
Symptoms caused by exposure	Breathing dust may cause irritation of the throat and lungs. Respirable silica dust particles are small enough to penetrate deep into the lungs and may cause damage including chronic



	<p>bronchitis, emphysema, silicosis, lung cancer, kidney damage or scleroderma.</p> <p>Eye contact may result in irritation of the eye, lacrimation, pain, redness, corneal burns and possible permanent damage.</p>
Medical attention and special treatment	Contact the Poisons Information Centre (13 11 26) and a doctor.

## Section 5 - Fire-fighting measures

Suitable extinguishing equipment	This material is non-combustible.
Specific hazards arising from the chemical	Inhaling dust from this material may be harmful.
Special protective equipment and precautions for firefighters	Suitable Personal Protective Equipment (PPE) should be worn when working near this material.

## Section 6 - Accidental release measures

Personal precautions, protective equipment and emergency procedures	Prevent inhaling dust. Suitable PPE should be worn when working near this material. Use water to wet material when applying to land to prevent dust from being generated.
Environmental precautions	Avoid runoff from entering waterways.
Methods and materials for containment and cleaning up	Any waste should be disposed of to a licensed facility.

## Section 7 - Handling and storage, including how the chemical may be safely used

Precautions for safe handling	Use all precautions listed in this SDS. Wash hands after working and before eating. Wash clothing after use.
Conditions for safe storage, including any incompatibilities	Avoid generating dust. Use water to wet down material when using and in windy environments. Avoid breathing dust. Avoid touching material directly with hands.



	Material is applied to land for construction purposes and should be stored and handled by suitably experienced personnel.
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## Section 8 - Exposure controls and personal protection

This product contains crystalline silica with respirable dust and may be harmful when inhaled. Workplace exposure standards from Safe Work Australia are shown in the below table. These should not be exceeded in the workplace when dealing with crystalline silica.

Substance	Time Weighted Average
Crystalline silica	0.1mg/m <sup>3</sup>

<b>Engineering controls</b>	Use only in well ventilated areas.  Use water to wet material when applying to land to prevent dust from being generated.  Wet down machinery after use.
<b>PPE</b>	Wear safety glasses or goggles.  Wear gloves and long sleeved clothing.  It is recommended to wear a Class P1 respirator where dust generation is possible.

## Section 9 - Physical and chemical properties

<b>Appearance</b>	Granular aggregate with some fines. Grey in colour.
<b>Odour</b>	No odour.
<b>pH</b>	11.3-12 <sup>1</sup>
<b>Melting point/freezing point</b>	Not relevant.
<b>Initial boiling point and boiling range</b>	Not relevant.
<b>Flash point</b>	Not relevant.
<b>Evaporation rate</b>	Not relevant.

<sup>1</sup> From *Crushed Brick as a Supplementary Material in Cement Treated Crushed Concrete Pavement Applications, Sustainability Victoria, 2013*



Flammability (solid, gas)	Not flammable.
Upper/lower flammability or explosive limits	Not flammable.
Vapour pressure	Not relevant.
Vapour density	Not relevant.
Relative density	Not relevant.
Solubility in water	Insoluble.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Particle size	Aggregate grades vary from 20mm minus to 100mm minus. Dust size ranges from respirable to visible.
Dustiness	Dust generation is likely when dry and product is moved.

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## Section 10 - Stability and reactivity

Reactivity	None known.
Chemical Stability	Stable.
Possibility of hazardous reactions	None known.
Conditions to avoid	Generation of dust.
Incompatible materials	None known.
Hazardous decomposition products	None known.

## Section 11 - Toxicological information

Acute toxicity	No known data available for this material.
Skin corrosion/irritation	Contact may result in irritation of the skin.
Serious eye damage/irritation	Contact may result in irritation of the eye, lacrimation, pain, redness, corneal burns and possible permanent damage.
Respiratory or skin sensitisation	Breathing dust may cause irritation of the throat and lungs. Respirable silica dust particles are small enough to penetrate deep into the lungs and may cause damage including chronic bronchitis, emphysema, silicosis, lung cancer, kidney damage or scleroderma.
Germ cell mutagenicity	No known data available for this material.
Carcinogenicity	Respirable silica dust particles are small enough to penetrate deep into the lungs and can cause lung cancer.
Reproductive toxicity	No known data available for this material.
Specific Target Organ Toxicity (STOT) – single exposure	Irritation of nose and throat and aggravation of pre-existing medical conditions such as asthma.
Specific Target Organ (STOT) - repeated exposure	Respirable silica dust particles are small enough to penetrate deep into the lungs and can cause damage including chronic bronchitis, emphysema, silicosis, lung cancer, kidney damage or scleroderma.
Aspiration hazard	Not expected.

## Section 12 - Ecological information

Ecotoxicity	Not known to be ecotoxic.
Persistence and Degradability	Material persistent and non-degradable.
Bio accumulative potential	Not known to be bioaccumulative.
Mobility in soil	Not expected to be mobile in landfill.
Other adverse effects	Unknown.

## Section 13 - Disposal considerations

Must be disposed of to a licenced facility that is lawfully able to accept this material. Able to be landfilled provided the facility is licenced for the waste type.

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## Section 14 - Transport information

Not classified as a dangerous good by the criteria of the ADG Code, IMDG or IATA.

UN number	N/A
Proper shipping name or technical name	N/A
Transport hazard class	N/A
Packing group	N/A
Environmental hazards for transport purposes	N/A
Special precautions for user	N/A
Additional information	N/A
Hazchem or emergency action code	N/A

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## Section 15 - Regulatory information

The material is not subject to any international agreements such as the Montreal Protocol or the Basel Convention.

The material does not have a Poisons Schedule Number under the Standard for the Uniform Scheduling of Medicines and Poisons.

This material is tested to meet the *Recovered Aggregate Order 2014* under the *Protection of the Environmental Operations (Waste) Regulation 2014*. It is the responsibility of the consumer of this material to check all other legislative requirements when using this material, including, but not limited to, the *Recovered Aggregate Exemption 2014*.

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## Section 16 - Any other relevant information

This report has been developed by Port Macquarie-Hastings Council.

### Revisions

This document will be reviewed at least once every five years or when new information becomes available.



Version Number	Date Revised	Revisions Made
1.0	26/06/2020	Version 1 complete.

**References**

*Crushed Brick as a Supplementary Material in Cement Treated Crushed Concrete Pavement Applications, Sustainability Victoria, 2013*

*Preparation for Safety Data Sheets for Hazardous Chemicals, Code of Practice, Safe Work Australia, February 2016.*

*Recycled Concrete Safety Data Sheet, Boral Recycling, 28 July 2014.*

*Recycled Concrete safety Data Sheet, Alex Fraser Group, 14 October 2016.*

*Workplace Exposure Standards for Airborne Contaminants, Safe Work Australia, 27 April 2018*