



## HI QUALITY RECYCLING SERVICES

# MATERIAL SAFETY DATA SHEET

## RECYCLED SAND

### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	Hi-Quality Recycled Sand
Other Name	EnviroSand, Bedding Sand, Backfilling Sand, Recovered Brick & Concrete Fines, EcoBase
Recommended Use	Trenches, pipe bedding & backfilling, brick paving, construction works and other civil engineering activities
Supplier	HI QUALITY RECYCLING SERVICES
Address	PO BOX 42 Kemps Creek NSW 2178
Telephone	02 9826 1666
Facsimile	02 9826 1416
Website	<a href="http://www.hiquality.com.au">www.hiquality.com.au</a>
Emergency Phone Number	1800 261 666

### SECTION 2: HAZARDOUS IDENTIFICATION

#### NON-HAZARDOUS SUBSTANCE

Not classified as hazardous substance. Respirable dust may be released during processing and handling, particularly through crushing and loading. Dusts containing respirable crystalline silica present a greater hazard which is classified as hazardous. (ASCC approved criteria for classifying hazardous substances [NOHSC: 1008] 3rd Edition).

<b>RISK PHRASES</b>	<b>R20</b>	Harmful by inhalation (Applies to dust)
	<b>R48</b>	Danger of serious damage to health by prolonged exposure (Applies to dust)
<b>SAFETY PHRASES</b>	<b>S22</b>	Do not breathe dust

#### NON-DANGEROUS GOODS

Product is classified as non-dangerous goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hi-Quality recycled sand is composed of crushed recycled concrete and brick with or without reclaimed asphalt (RAP), sand.

The content of each raw component will vary, and is related to the type of material from which the recycled sand is produced.

### SECTION 4: FIRST AID MEASURES

<b>Swallowed</b>	Rinse mouth and lips with water. Do not induce vomiting. If symptoms persist, seek medical attention.
<b>Eye</b>	Flush thoroughly with flowing water, while holding eyelids open, for 15 minutes to remove all traces. Do not attempt to remove solid particles embedded in the eye. If symptoms such as irritation or redness persist, seek medical attention.
<b>Skin</b>	Remove contaminated clothing. Wash off skin thoroughly with water. Use a mild soap if available. Shower if necessary. Seek medical attention for persistent redness, irritation or burning of the skin.
<b>Inhaled</b>	Move away from dusty area to well ventilated area. If symptoms persist, seek medical attention.
<b>First Aid Facilities</b>	Eye wash station and normal wash-room facilities.
<b>Advice to Doctor</b>	Treat symptomatically.

### SECTION 5: FIRE FIGHTING MEASURES

<b>Flammability</b>	Not flammable or combustible.
<b>Suitable extinguishing media</b>	Not required
<b>Hazards from combustion products</b>	None
<b>Special protective precautions and equipment for fire fighters</b>	Not required
<b>Hazchem code</b>	None allocated

### SECTION 6: ACCIDENTAL RELEASE MEASURES

If spillage is to be swept or shovelled into containers, it should be wetted down with water to reduce dust generation.

Recommendations on exposure control and personal protection should be followed during spill clean-up if conditions are dusty.

Prevent run-off into drains and waterways. Reuse product wherever possible. Dispose of waste product according to local regulations.

## SECTION 7: HANDLING AND STORAGE

**Storage** No special storage requirements. Do not store near food or beverages.

**Handling** Use the safe work practices are recommended to avoid eye or skin contact and inhalation.

Avoid breathing dust. Respirable dusts can be generated during processing, handling and storage. Use control measures such as ventilation, enclosure of materials, covered loads on trucks, and wetting down material while in use. When stockpiling and handling large quantities of products, care should be taken to avoid having the faces of the stockpile steeper than the natural angle of repose of the material. Steep faces can fall without warning and trap persons resulting in injury and possibly suffocation.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Standards** National Occupational Exposure Standard (NES) Australian Safety and Compensation Commission ASCC (formerly NOHSC)  
Exposure to dust should be kept as low as practicable, and below the following NES:  
**Crystalline silica (quartz): 0.1 mg/m<sup>3</sup> TWA ( time-weighted average) as respirable dust.**  
**Total dust (of any type, or particle size): 10 mg/m<sup>3</sup> TWA.**

**Engineering Controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Wet where possible. Maintain dust levels below the recommended exposure standard.

**Personal Protection** Wash hands before eating, drinking, using the toilet, or smoking. Wash work clothes regularly.

Wear loose comfortable clothing and gloves (standard duty leather or equivalent AS 2161).

Safety glasses with side shields or safety goggles (AS/NZ 1336) or a face shield should be worn.

Where engineering and handling controls are not enough to minimise exposure to total dust and to respirable crystalline silica, personal respiratory protection may be required. The type of respiratory protection required depends primarily on the concentration of the respirable crystalline silica dust in the air, and the frequency and length of exposure time. Amount of exertion required during the work, and personal comfort are other considerations in choice of respirator. A suitable P1 or P2 particulate respirator chosen and used in accordance with AS/NZS 1715 and AS/NZS 1716 may be sufficient for many situations, but where high levels of dust are encountered, more efficient cartridge-type or powered respirators or supplied-air helmets or suits may be necessary. Use only respirators that bear the Australian Standards mark and are fitted and maintained correctly.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Grey/Brown/Red, granular solid with no odour.
<b>Particle size</b>	< 10 mm
<b>Odour</b>	None
<b>Vapour pressure</b>	N/A
<b>Vapour density</b>	N/A
<b>Boiling point</b>	N/A
<b>Melting point</b>	N/A
<b>Evaporation Rate</b>	N/A
<b>Solubility (water)</b>	Insoluble
<b>Permeability (Constant Head)</b>	$8 \times 10^{-7}$ m/s
<b>Density</b>	1.5 - 1.6 t/m <sup>3</sup> (Bulk)
<b>Maximum Dry Density</b>	1.83 t/m <sup>3</sup>
<b>Specific gravity</b>	N/A
<b>Flash point</b>	N/A (above 200°C for asphalt)
<b>Flammability</b>	N/A (above 230°C for asphalt)

## SECTION 10: STABILITY AND REACTIVITY

<b>Chemical stability</b>	Chemically stable
<b>Conditions to avoid</b>	None
<b>Incompatible materials</b>	None known
<b>Hazardous decomposition products</b>	None known
<b>Hazardous reactions</b>	None

## SECTION 11: TOXICOLOGICAL INFORMATION

### Health Effects

#### Acute (Short Term Exposure)

- Swallowed** Unlikely to occur under normal conditions of industrial use. Swallowing of dust may cause abdominal discomfort.
- Eyes** Dust is irritating to the eyes. Exposure to dust may aggravate pre-existing eye conditions.
- Skin** Dust may be mildly irritating and abrasive to the skin due to its physical properties.
- Inhaled** Dust is mildly irritating to the nose, throat and lungs, resulting in coughing and sneezing.  
Pre-existing upper respiratory and lung diseases including asthma and bronchitis may be aggravated.

#### Chronic (Long Term Exposure)

- Eyes** Dust may cause irritation and inflammation of the eyes and aggravate pre-existing eye conditions.
- Skin** Repeated heavy contact may cause drying of the skin and can result in skin rash (dermatitis) typically affecting the hands. Over time this may become chronic and can also become infected.
- Inhaled** Repeated exposure to the dust may result in increased nasal and respiratory secretions and coughing. Inflammation of lining tissue of the respiratory system may follow repeated exposure to high levels of dust with increased risk of bronchitis and pneumonia. Pre-existing upper respiratory and lung diseases including asthma and bronchitis may be aggravated.  
The product contains a proportion of respirable free crystalline silica in the quartz component. Long term occupational over-exposure or prolonged breathing-in (or inhalation) of crystalline silica dust at levels above the NES carries the risk of causing serious and irreversible lung disease, including bronchitis, and silicosis (scarring of the lung), including acute and/or accelerated silicosis. It may also increase the risk of other irreversible and serious disorders including scleroderma (a disease affecting the skin, joints, blood vessels and internal organs) and other auto-immune disorders.  
Inhalation of dust, including crystalline silica dust, is considered by medical authorities to increase the risk of lung disease due to tobacco smoking. Crystalline silica (inhaled in the form of quartz or cristobalite from occupational sources) has

been classified by The International Agency for Research on Cancer (IARC) as carcinogenic to humans (Group 1). However the research on this is inconclusive and A0SCC/NOHSC has not classified crystalline silica as a carcinogen. Current research indicates no excess risk of lung cancer or other cancers from using these products.

## **SECTION 12: ECOLOGICAL INFORMATION**

The product poses no ecology risks. They are non-toxic to aquatic and terrestrial organisms and are not biodegradable.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

Reclaim and reuse where possible. Recovered material should be delivered to the intended receiver or returned to the producer. Keep out of stormwater and sewer drains.

Dispose of in accordance with local regulations.

## **SECTION 14: TRANSPORT INFORMATION**

<b>Shipping Name</b>	Not Allocated
<b>UN No.</b>	Not Allocated
<b>Packing Group</b>	Not Allocated
<b>DG Class</b>	Not Allocated
<b>Hazchem Code</b>	Not Allocated
<b>Subsidiary Risk</b>	Not Allocated

## **SECTION 15: REGULATORY INFORMATION**

Hi-Quality recycled sand is classified as non-dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Crystalline silica dust is classified as Hazardous according to the criteria of the ASCC (formerly NOHSC) (Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008] 4th Edition). Exposures by inhalation to high levels of dust which contains respirable crystalline silica is regulated under the Hazardous Substances Regulations.

Persons who have potential for exposure above the NES may be required by Regulations to have periodic health surveillance including chest X-ray (see ASCC/NOHSC documentation and relevant State Government Regulations).

The chemicals and foreign material contents are under the limits of the DECC General Exemption-  
The recovered aggregate exemption.

## **SECTION 16: OTHER INFORMATION**

**Poisons Information Centre                      13 11 26**

### **References**

AS/NZS 1336	Recommended Practices for Occupational Eye Protection
AS/NZA 1337	Eye protectors for industrial applications
AS/NZS 1715	Selection, Use and Maintenance of Respiratory Protective Devices
AS/NZS 1716	Respiratory Protective Devices
AS/NZS 2161	Occupational Protective Gloves

Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC: 1003 (1995)], 1995, National Occupational Health and Safety Commission.

Approved Criteria for Classifying Hazardous Substances 3rd Edition [NOHSC: 1008(2004)], Oct 2004, National Occupational Health and Safety Commission.

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011 (2003)], April 2003, National Occupational Health and Safety Commission.

Australian Dangerous Goods Codes 7th Edition, Oct 2010, Department of Infrastructure and Transport.

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