

SAFETY DATA SHEET

Product: **RECYCLED AGGREGATE**

Issue Date: June 2021 Issue no: 2.0

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1. Identification of Substance/Preparation & Company/ Undertaking:

Substance name: RECYCLED AGGREGATE

Includes recycled asphalt, concrete, inert construction and demolition waste, natural and artificial aggregate, brick, tiles, industrial sand, ceramics and glass. Appearance is variable, dependant on the source of the aggregate, but usually in the form of a coarse and/or fine aggregate.

Company Details:

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2. Hazard Identification

NOT classified as hazardous in accordance with the Chemicals (Hazard Information and Packaging for Supply) Regulations. Respirable dust may be released during processing, handling and use of recycled aggregates, particularly through crushing, drilling, cutting, loading and unloading of bulk aggregates. If inhaled in excessive quantities over a prolonged period or extended period, respirable dust can constitute a long term health hazard. Dusts containing Respirable Crystalline Silica (quartz) present a greater hazard.

Long-term exposure to respirable dust can lead to respiratory system damage and disease. Respirable crystalline silica has been associated with the lung disease silicosis.

Some sand aggregates are unsuitable for sand blasting operations as they may break down, producing respirable quartz dust. The quartz content of the product will vary, and is related to the type of material from which the recycled aggregate is produced. Advice on the quartz content and other chemical information is available from the supplying unit.

3. Composition / Information on Ingredients

Produced from a range of inert materials recovered from activities including road building and repair, construction and demolition of buildings and other structures, railway track maintenance, and recovery of construction materials, industrial sand and glass.

The composition and characteristics of the aggregate will depend on the proportions of each type of recycled material within the recycled aggregate. Recycled asphalt may contain coarse and fine aggregate, bitumen and other additions. Recycled concrete may contain coarse and fine aggregate, cementitious material and other additions in a hardened state. Further information on the composition, including free silica (quartz) content is available from the supplying unit, and by referring to the Breedon Safety Data Sheets for natural aggregate, asphalt and ready-mixed concrete. In general, quartzite, sandstone, sand & gravel and glass will have the highest levels of quartz.

4. First Aid Measures

Inhalation:

Immediately remove to fresh air. If breathing difficulties are experienced, seek medical attention.

Skin contact:

Wash with water. Prolonged contact may cause irritation. If symptoms develop or persist, seek medical attention.

Eye Contact:

Do not rub eyes, as the material is abrasive and may scratch the surface of the eye. Immediately and thoroughly irrigate with eye wash solution or clean water. If symptoms develop or persist, seek medical attention.

Ingestion:

Remove to fresh air. If person is conscious, rinse out mouth and give water to drink. Seek medical advice if symptoms develop.

5. Fire Fighting Measures

For recycled aggregate containing asphalt, the following apply:

Suitable Extinguishing Media

Dry powder, foam.

Unsuitable Extinguishing Media

Do not use water. CO2 is also not suitable.

Special Exposure Hazards in Fire

Hydrocarbon fumes may be released, along with other hazardous combustion products including smoke.

Special Protective Equipment for Fire Fighters

Proper protective equipment including suitable respirators or breathing apparatus must be worn.

Other recycled aggregates should not be flammable, and no fire fighting measures will apply.

6. Accidental Release Measures

Personal Precautions:

Avoid breathing in dust. Keep dust out of eyes. See Section 8 for guidance on personal protective equipment. See Section 7 for guidance on handling the product. Wear overalls and gloves.

Environmental Precautions:

Recycled aggregates are inert, but dust and fine particles should be prevented from entering watercourses and drains. Deposition of dust on vegetation and surrounding property should be avoided controlling the release of dust at source.

Methods for Cleaning:

Avoid dry sweeping which creates dust. Use vacuum cleaning where practicable, or suppress dust using water sprays before cleaning up.

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7. Handling and Storage

Handling

The product should be handled to minimise creation of airborne dust. Conveyor systems should be fitted with covers to minimise wind whipping. Very fine, dry material should be conveyed in an enclosed system. Water sprays and/or local exhaust ventilation and filtration should be used as required to minimise generation of dust. Skin contact with asphalt should be avoided.

Manual handling of the product should be avoided where possible. If manual handling is necessary, full account should be taken of the Manual Handling Regulations.

Storage

Product should be stored to minimise the creation of airborne dust. Bulk aggregate containing fine material (<3mm) should not be stored in the open unless it is conditioned with water. Stockpiles should be sited to avoid wind-whipping where possible. Storage bays should be fitted with 3 sides and the aggregate stored below the level of the sides to avoid wind whipping.

8. Exposure Controls / Personal Protection

Exposure Control Limits / Source

Total Dust -	W.E.L.	10mg/m ³	8 Hrs	T.W.A.
Respirable Dust -	W.E.L.	4mg/m ³	8 Hrs	T.W.A.
Respirable Quartz - Crystalline Silica SiO ₂	W.E.L.	0.1mg/m ³	8 Hrs	T.W.A.

W.E.L. = Workplace Exposure Limit
T.W.A. = Time Weighted Average

Control Measures:

Dust should be controlled by containment, suppression and extraction/ filtration where possible. Regular monitoring should be undertaken to identify where people may be exposed to respirable dust so that further measures can be implemented to reduce exposure.

Respiratory Protection:

Suitable respiratory protection should be used to protect against inhalation of dust, and to ensure exposure is below the Workplace Exposure Levels given at the start of this section.

Hand Protection:

Gloves should be worn.

Eye Protection:

Goggles should be worn to prevent dust entering the eyes if required.

Skin Protection:

Overalls to protect skin and clothes. The use of skin barrier cream is also recommended.



9. Physical and Chemical Properties

Appearance:	Granular solid.
Odour:	None to slight - varies
pH:	Various
Boiling Point / Range:	Not determined
Melting Point / Range:	Not determined
Flash Point:	Not applicable (above 200°C for asphalt)
Auto Flammability:	Not applicable (above 230°C for asphalt)
Flammability:	Not applicable
Explosive Properties:	Not applicable
Oxidising Properties:	Not determined
Vapour Pressure:	Not applicable
Relative Density:	Above 2.0
Water Solubility:	Dependant on material
Fat Solubility:	Not determined

10. Stability and Reactivity

Conditions to Avoid

None (except for material containing asphalt - Sources of ignition and temperatures above 200°C)

Materials to Avoid

Acids (for aggregates containing CaCO₃ & MgCO₃). Strong oxidising agents, e.g. chlorates (for material containing asphalt).

Hazardous Decomposition Products

Limestone aggregates may react with acid groundwater to release carbon dioxide gas, which may build up in confined spaces to hazardous concentrations. The substances arising from the thermal decomposition of the bitumen binder in material containing asphalt will depend on the particular conditions, but may include Hydrogen Sulphide, Carbon Dioxide, Carbon Monoxide, Particulate Matter, Sulphur Oxides, Polycyclic Aromatic Hydrocarbons, Unburnt Hydrocarbons, Nitrogen Oxides, Vanadium Pentoxide.

11. Toxicological Information

Inhalation:

If inhaled over a prolonged or extended period, respirable dust from recycled aggregate can lead to respiratory system damage and disease. Respirable crystalline silica has been associated with the lung disease silicosis.

Skin Contact:

Prolonged contact with skin may cause irritation and dryness, which may lead to dermatitis.

Eye Contact:

Particles of grit or dust from recycled aggregates may irritate and scratch eyes.

Ingestion:

Unlikely to cause any problems.

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<p>12. Ecological Information</p> <p>Environmental Assessment: When used and disposed of as intended, no adverse environmental effects are foreseen. Recycled aggregates are inert materials and do not pose a significant ecological hazard.</p> <p>Mobility: Aggregates are non volatile, inert materials that will sink in water and form a layer on the surface of the ground. Dust may become airborne, leading to deposition on vegetation.</p> <p>Persistence and Degradability: Aggregates are resistant to degradation and will persist in the environment.</p> <p>Ecotoxicity: Not expected to be toxic to aquatic organisms.</p>	<p>16. Other Information</p> <p>Training Advice: Wear and use of PPE.</p> <p>Recommended Uses and Applications: Industrial and construction applications.</p> <p>Further Information: Contact: enquiries.breedon@breedongroup.com</p> <p>Key Data Used to Compile Data Sheet: HSE Guidance Note EH40 PPE Regulations 1992 COSHH Regulations 2002 Environmental Protection Act 1990 HSE Crystalline Silica EH59</p> <p>Further copies of this Safety Data Sheet may be obtained on request</p> <p>Prepared in accordance with Annex II of the REACH Regulation (EC) 1907/2006</p>
<p>13. Disposal Consideration</p> <p>Safe Handling of Residues / Waste Product: Recycled aggregates are classed as 'inert' but should be disposed of in accordance with local and national legal requirements. Recycled aggregates can be readily reused or recycled.</p>	<p>Legal Notice The information in this Safety Data Sheet was believed to be correct at the time of issue. However, no warranty is made or implied as to the accuracy or completeness of this information.</p> <p>If you have purchased this product for supply to a third party for use at work, it is your duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet.</p> <p>If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and any of the precautions which should be taken.</p> <p>This Safety Data Sheet does not constitute the user's own assessment of workplace risk, and it is the user's sole responsibility to take all necessary precautions when using this product.</p>
<p>14. Transport Information</p> <p>Special Carriage Requirements: None – not classified as dangerous for transport. Open vehicles should be sheeted or loads conditioned with water to avoid dust nuisance.</p>	
<p>15. Regulatory Information</p> <p>Classification: Not classified as dangerous.</p> <p>However, consideration of the following risk & safety phrases is recommended:</p> <p>Risk Phrases: R36/37 - Irritating to eyes and respiratory system.</p> <p>Safety Phrases: S36/ 37/ 39 - Wear suitable protective clothing, gloves and eye / face protection.</p>	