

# Aggregates

## Material Safety Data Sheet (MSDS)



### 1. IDENTIFICATION OF SUBSTANCE/ MIXTURE & COMPANY/UNDERTAKING

**Name of substance:** Natural aggregates

For further details of the specification refer to the relevant Material Safety Data Sheet.

### 2. HAZARD IDENTIFICATION

NOT classified as dangerous in accordance with Directive 67/548/EEC or EC 1272/2008.

Respirable dust may be released during processing, handling and use of natural aggregates, particularly through crushing, drilling, cutting, loading and unloading of bulk aggregates, or if the aggregate is supplied as a fine powder. 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 dust containing quartz.

The quartz content of the product will vary, and is related to the type of mineral deposit from which the 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 naturally occurring rock or sand and gravel mineral deposits.

The mineral composition and characteristics of the aggregate will depend on the type of mineral deposit from which the aggregate is produced. Further information on the composition, including free silica (quartz) content is available from the supplying unit. In general, quartzite, sandstone, sand & gravel will have the highest levels of quartz.

#### Hazardous ingredients:

Substance Name	EC No	%	DSD Classification	CLP Classification
Crystalline Silica*	238-878-4	Variable	Xn R48/20	H372

#### 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

Natural aggregates are non-flammable and are not combustible.

**Suitable Extinguishing Media:** Not applicable.

**Unsuitable Extinguishing Media:** Not applicable.

**Special Exposure Hazards in Fire:** None.

**Special Protective Equipment for Fire Fighters:** None.

#### 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.

**Environmental Precautions:**

Natural 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.

#### 7. HANDLING AND STORAGE

**Handling:**

The product should be handled to minimise the 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.

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:**

The product should be stored to minimise the creation of airborne dust. Very fine, dry product in bulk should be stored in enclosed silos.

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**

**Take Measures to Prevent:**

Inhalation of excessive quantities of dust.

**Exposure Control Limits / Source**

Total Dust	W.E.L.	10mg/m <sup>3</sup>	8 Hrs	T.W.A.
Respirable Dust	W.E.L.	4mg/m <sup>3</sup>	8 Hrs	T.W.A.
Respirable Quartz (Crystalline Silica SiO <sub>2</sub> )	W.E.L.	0.1mg/m <sup>3</sup>	8 Hrs	T.W.A.

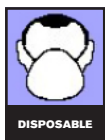
W.E.L. = Workplace Exposure Limit

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.



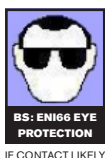
**Respiratory Protection:**

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.



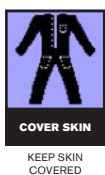
**Hand Protection:**

Gloves should be worn to avoid abrasion of the skin when handling the product. Wear waterproof gloves if the product is wet.



**Eye Protection:**

Goggles or protective glasses 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. Hands should be washed thoroughly before handling or eating food or drink.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Granular solid
Odour	None
pH	Various
Boiling Point / Range	Not determined
Melting Point / Range	Not determined
Flash Point	Not applicable
Auto Flammability	Not applicable
Flammability	Not applicable
Explosive Properties	Not applicable
Oxidising Properties	Not determined
Vapour Pressure:	Not applicable
Relative Density:	Above 2.0
Water Solubility:	Dependant on rock type
Fat Solubility:	Not determined

**10. STABILITY AND REACTIVITY****Conditions to Avoid:**

None.

**Materials to Avoid:**

Acids (for aggregates containing CaCO<sub>3</sub> & MgCO<sub>3</sub>)

**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.

**11. TOXICOLOGICAL INFORMATION****Inhalation:**

If inhaled over a prolonged or extended period, respirable dust from natural 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 natural aggregates may irritate and scratch eyes.

**Ingestion:**

Unlikely to cause any problems.

**12. ECOLOGICAL INFORMATION****Environmental Assessment:**

When used and disposed of as intended, no adverse environmental effects are foreseen. Aggregates are naturally occurring, inert minerals and do not pose a significant ecological hazard.

**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.

**Persistence and Degradability:**

Aggregates are resistant to degradation and will persist in the environment.

**Ecotoxicity:**

Not expected to be toxic to aquatic organisms.

**13. DISPOSAL CONSIDERATION**

**Safe Handling of Residues / Waste Product:**

Natural aggregates are classed as 'inert' but should be disposed of in accordance with local and national legal requirements. Natural aggregates can be readily reused or recycled.

**14. TRANSPORT INFORMATION**

**Special Carriage Requirements:**

None – not classified as dangerous for transport.

Open vehicles should be sheeted or loads conditioned with water to avoid dust nuisance.

**15. REGULATORY INFORMATION**

Classification: **Not classified as dangerous.**

However, consideration of the following risk & safety phrases is recommended:

**67/548/EEC**

**Risk Phrases:**

R36/37 – Irritating to eyes and respiratory system.

R48/20 – Harmful: danger of serious damage to health by prolonged exposure through inhalation (if respirable silica is present).

**Safety Phrases:**

S36/ 37/ 39 – Wear suitable protective clothing, gloves and eye/face protection.

**EC1272/2008**

**Hazard Statements:**

H317 – May cause skin irritation

H335 – May cause respiratory irritation

H372 – Causes damage to organs through prolonged or repeated exposure (relates possible lung damage if exposed to respirable silica).

**Precautionary Statements:**

P261 – Avoid breathing dust

P281 – Use personal protective equipment as required (see Section 8)

## 16. OTHER INFORMATION

### Training Advice:

Wear and use of PPE.

### Recommended Uses and Applications:

Industrial and construction applications.

### Further Information:

Contact Product Technical Support at Hanson UK using the details given in Section 1.

HSE Guidance Note EH40/2007 PPE Regulations 1992

COSHH Regulations 2002 Environmental Protection Act 1990

HSE Crystalline Silica EH59

Dangerous Substances Directive (DSD) 67/548/EEC

Classification, Labelling and Packaging Regulations (CLP) EC1272/2008

Further copies of this Material Safety Data Sheet may be obtained from Hanson UK.

Prepared in accordance with Annex II of the REACH Regulation (EC) 1907/2006

## 17. DISCLAIMER

The information in this Material Safety Data Sheet was believed to be correct at the time of issue. It does not, however, give assurances of product properties and establishes no contract legal rights.

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.

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.

This Material 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 safety precautions when using this product.

The product is to be used exclusively for the applications named in the technical leaflet or in the processing instructions. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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