



## Material Safety Datasheet

# NATURAL AGGREGATES

It is important that you, or any persons working for you or to whom you have supplied natural aggregates, become familiar with the information given on both pages of this datasheet before handling, using or disposing of the product(s).

## Natural Aggregates

### 1. Identification of substance/preparation and company

**Company:** CEMEX UK Operations Ltd  
CEMEX House, Evreux Way  
Rugby, Warwickshire CV21 2DT  
Tel: 01788 542111 (out of hours 01932 568833)  
Fax: 01788 540166

**Product:** Natural Aggregates include crushed rock (typically limestone, granite, basalt, dolerite, quartzite etc), and all types of sand (washed and unwashed).

**Revision date:** May 2006

## Hazard information

### 2. Composition/information on ingredients

**Natural Aggregates:**  
Natural aggregates are produced from naturally occurring rock or sand and gravel deposits. These products will contain a combination of various minerals including silica.

The silica content of different aggregates will vary depending upon the mineral deposit. The following figures are given as an indication of the level of free silica in different mineral sources, but it must be noted that these figures do vary.

Quartzite – greater than 95%  
Flint – greater than 90%  
Sandstone – greater than 90%  
Granite – up to 30%  
Dolerite – up to 15%  
Basalt – up to 5%  
Limestone – usually less than 1%

### 3. Hazards identification

The main health hazard from natural aggregates is airborne dust. Increased levels of dust are generated by mechanical treatment of natural aggregates, or products containing natural aggregates, i.e. cutting and surface treatment of hardened concrete. Inhalation of respirable dust over a prolonged period can be harmful to health. Where respirable dust contains high quantities of free silica in the form of quartz, there is a risk of developing silicosis. The main symptoms of this chronic disease are difficulty in breathing and coughing. Long-term prolonged exposure to high levels of respirable crystalline silica, which can arise from a failure to implement adequate control measures, can also lead to an increased risk of developing lung cancer.

## Emergency action

### 4. First aid measures

- 4.1 Eye contact:  
Immediately irrigate with eyewash solution or clean water. If symptoms develop, obtain medical attention.
- 4.2 Skin contact:  
Wash with soap and water. If irritation occurs seek medical attention.
- 4.3 Ingestion:  
If ingestion causes problems, remove from exposure and seek medical attention if required.
- 4.4 Inhalation:  
Remove the affected person to fresh air and seek medical attention if required.

### 5. Fire fighting measures

Non-flammable

### 6. Accidental release measures

- 6.1 Personal precautions (See 8.2.)
- 6.2 Cleaning up:  
In the event of spillage, avoid cleaning methods which generate airborne dust. Avoid breathing in dust by standing up-wind, damping down with water and wearing a suitable dust mask if required.  
If possible, use a vacuum or other dustless cleaning method. Avoid dry sweeping which produces airborne dust. Damp down surfaces, sweep/shovel up waste and dispose of according to statutory restrictions.
- 6.3 Environmental Measures:  
The release of aggregate dust into the environment does not constitute a significant environmental hazard. However, where dust passes beyond site boundaries, this may be regarded as statutory nuisance under the Environmental Protection Act 1990.

## Precautions

### 7. Storage and handling

- 7.1 Storage:  
Natural aggregates should be handled and stored to minimise the creation of airborne dust.
- 7.2 Handling:  
Engineering control measures such as containment, enclosed silos/bins/hoppers, local exhaust ventilation, spray suppression systems, etc. should be used where there is a risk of airborne dust creation.  
Open conveyor handling systems should be provided with wind boards or other protection to prevent wind-whipping.  
Manual handling of the product should be minimised through the use of mechanical aids etc, wherever possible. Account should be taken of the Manual Handling Regulations and care should be taken when lifting by hand.

## 8. Exposure controls/personal protection

Wear suitable personal protection equipment.

### 8.1 Workplace exposure limits:

The following Workplace Exposure Limits (WEL's) for airborne dust are given in HSE Guidance Note EH40:

Substance	WEL	Period
Total inhalable dust	10 mg/m <sup>3</sup>	8 hour TWA
Respirable dust	4 mg/m <sup>3</sup>	8 hour TWA
Respirable Silica	0.3 mg/m <sup>3</sup>	8 hour TWA

It should however be noted that the Health and Safety Executive have stated in their Chemical Hazard Alert Notice on Respirable Crystalline Silica (CHAN 35 published April 2003) that it should be reasonably practicable for all industry sectors to control respirable crystalline silica exposure to 0.1mg/m<sup>3</sup> (8 hour TWA) or below and have indicated that they intend to introduce this as a WEL at some stage in 2006.

### 8.2 Personal protective equipment

#### a. Respiratory protection:

Suitable respiratory protection (HSE approved standard) should be worn to protect against inhalation of dust.

#### b. Hand and skin protection:

Overalls and gloves should be used to prevent contamination of the skin.

#### c. Eye protection:

Eye protection to BS EN 1664-4 should be used to prevent dust entering the eyes.

## Product information

### 9. Physical & chemical properties

Odourless particles of solid material in the form of crushed rock or sand and gravel. Other chemical properties not applicable under ambient conditions.

### 10. Stability & reactivity

Conditions contributing to chemical instability: None

Hazardous decomposition products: None

Special precautions: None

### 11. Toxicological information

Short term effects:

#### a. Eye contact:

May cause transient irritation to the eyes.

#### b. Skin:

Prolonged or repeated contact with mineral dust may cause the skin to dry out giving rise to dermatitis.

#### c. Ingestion:

Extremely unlikely.

#### d. Inhalation:

Inhalation of mineral dusts over a prolonged period may give rise to a number of respiratory illnesses including, chronic bronchitis, pneumoconiosis and silicosis (if silica present). Long-term prolonged exposure to high levels of respirable crystalline silica, which can arise from a failure to implement adequate control measures, can also lead to an increased risk of developing lung cancer.

### 12. Ecological information

#### 12.1 Aquatic toxicity rating:

Not applicable.

#### 12.2 Persistence and degradation:

None

### 13. Disposal considerations

Disposal should be in accordance with current local and national legislation.

## Additional information

### 14. Transport information

Classification is not required for conveyance.

### 15. Regulatory information

Chemicals (Hazard Information and Packaging for Supply) Regulations.

Classification - None

Workplace Exposure Limits – HSE Guidance note EH40.

### 16. Legislation and other information

- Health & Safety at Work, etc. Act 1974
- Control of Substances Hazardous to Health Regulations (COSHH) 2002
- Control of Substances Hazardous to Health (Amendment) Regulations 2004
- Environmental Protection Act 1990
- HSE Guidance Note EH40 (Workplace Exposure Limits)
- Any authorised manual on First Aid by St.John's/St. Andrews/Red Cross
- Manual Handling Operations Regulations 1992 (as amended)

Data Sheet prepared in accordance with the Safety Data Sheets Directive (91/155/EEC, as amended by Directives 93/122/EC and 2001/58/EC)

## Guidance references

Available from HMSO, HSE area offices, or local authority Environmental Health Departments:

- Workplace Exposure Limits (EH40)
- A step-by-step guide to COSHH Assessment (HS[G]97)
- An introduction to Local Exhaust Ventilation (HS[G]37)
- Respirable Crystalline Silica (EH59)
- Dust, General Principles of Protection (EH44)
- Control of Respirable Crystalline Silica in Quarries (HS[G]73)
- Respirable Crystalline Silica (EH74/2)
- Respirable Crystalline Silica (EH75)

### IMPORTANT NOTES

The purpose of this datasheet is to provide Health, Safety and Environmental guidance on the safe handling, use and disposal of natural aggregates supplied by subsidiary or affiliate companies of CEMEX in the United Kingdom.

The information contained in this datasheet is correct at the date of, and applies only in relation to, the supply of material referred to in the delivery docket to which this datasheet is attached and forms part.

This datasheet should alert purchasers and/or users to the usual hazards in handling the supplied material when using it within the ordinary range of uses for which such material is normally supplied. If you have purchased or arranged the supply on behalf of a third party who will work with the material supplied it is your duty to pass this information on to them BEFORE such work commences.

For the avoidance of doubt the datasheet DOES NOT constitute the user's own assessment of workplace risk as may be required by other safety legislation and nothing herein shall be construed or relied upon as relieving the purchaser, user or any intermediate supplier or third party from any statutory or other legal duty which may apply to them or from taking care or precautions to protect themselves or others to whom they owe a duty of care.

The datasheet should not be relied upon for any other purpose including without limitation any technical or design purpose, nor relied upon in the use or handling of any other product whether supplied by CEMEX or not. Reliance placed on any part or all of the information contained in this datasheet which goes beyond the purpose set out above is entirely at the user's own risk.

Without limiting or restricting the terms and conditions upon which the material has been supplied by CEMEX, to the extent permitted by law, disclaims all liability arising directly or indirectly from the content or preparation of this datasheet except that CEMEX will accept responsibility for personal injury which is demonstrated to have been caused by its own negligence.

For further information please contact  
Customer Services on:

Tel: 01788 542111  
(out of hours) 01932 568833  
Fax: 01788 540166