## Substance/Preparation

**Substance Name:** Ready-mixed Concrete

## Company/Undertaking

Breedon Southern Limited  
Breedon Quarry  
Breedon on the Hill  
Derby  
DE73 8AP  
Telephone: 01332 694010  
Fax: 01332 863149

Breedon Northern Limited  
Ethiebeaton Quarry  
Kingennie  
Monifieth  
Angus  
DD5 3RB  
Telephone: 01382 537600  
Fax: 01382 537619

Web: www.breedongroup.com  
Email: enquiries@breedongroup.com

## Composition/Ingredients

Ready-mixed concrete is a mixture of:

- A cementitious material. (This may be cement or a mixture of cement with pulverised fuel ash or ground granulated blast furnace slag or silica fume);
- Fine and coarse aggregate
- Water;
- Admixtures or additives may be added to improve the properties of the fresh or hardened concrete. Pigments may be added to colour the product.

The components vary in concentration according to the required properties of the product.

The resultant mixture is abrasive and alkaline.

## Hazards Identification

### Skin
Contact with wet cement mixes such as wet concrete can cause skin disease.

Irritant contact dermatitis is caused by the combination of the wetness, alkalinity and abrasiveness of the ready-mixed concrete.

## Accidental Release Measures

### Personal Precautions
No special requirements

### Environmental Precautions
Entry into watercourses should be avoided.

### Methods for Cleaning
No special requirements.

## Fire Fighting Measures

### Suitable Extinguishing Media
Not applicable.

### Unsuitable Extinguishing Media
Not applicable.

### Special Exposure Hazards in Fire
None.

### Special Protective Equipment for Fire Fighters
None.

## First Aid Measures

**Summary of First Aid Procedures**  
In all cases of doubt, or where symptoms persist, medical advice should be obtained.

### Inhalation
Not applicable.

### Skin Contact
Where skin contact occurs with wet concrete, either directly or through saturated clothing, the concrete must be washed off immediately with soap and water. Where concrete enters boots or gloves or saturates clothing, the article should be removed immediately and washed before further use.

### Eye Contact
Immediately and thoroughly irrigate with water.

### Ingestion
Wash out mouth and drink plenty of water. Do not induce vomiting. Seek medical advice if a large amount is swallowed.
Allergic contact dermatitis may be caused by individual sensitivity to chromium compounds which may occur in cement. Cement burns, a form of skin ulceration, may result from contact with freshly mixed concrete.

**Eyes**
Wet material can cause irritation, inflammation or burns on contact with eyes.

**Ingestion**
The swallowing of small amounts of fresh concrete is unlikely to cause any significant reaction. Larger amounts can cause irritation of the stomach and intestines.

**Handling/Storage**

<table>
<thead>
<tr>
<th>Handling</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact should be avoided. The mixture is abrasive and highly alkaline.</td>
<td>The hardening process of ready-mixed concrete can be delayed by the addition of additives and or mixtures, extending the period during which the precautions given in this data sheet should continue to be taken and during which access by unauthorised persons should be prevented.</td>
</tr>
</tbody>
</table>

**Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Grey, granular paste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>PH</td>
<td>Highly Alkaline</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flash Point (0c)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Auto Flammability</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Oxidising Properties</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Relative Density</td>
<td>Above 2.0</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Dependent on rock type</td>
</tr>
<tr>
<td>Fat Solubility</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

**Exposure Controls**

<table>
<thead>
<tr>
<th>Take Measures to Prevent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct skin contact with fresh concrete should be avoided. It is also important not to kneel or sit on the material as harmful contact can occur through saturated clothing.</td>
</tr>
</tbody>
</table>

The surface treatment and cutting or hardened concrete can create dust which may contain quartz. If inhaled in excessive quantities over an extended period, respirable dust containing quartz can constitute a long term health hazard.

**Workplace Exposure Limits**

<table>
<thead>
<tr>
<th>Total Dust</th>
<th>Respirable Dust</th>
<th>Respirable Quartz</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 mg/m³ (8hrs T.W.A)</td>
<td>4 mg/m³ (8hrs T.W.A)</td>
<td>0.1 mg/m³ (8hrs T.W.A)</td>
</tr>
<tr>
<td>(Crystalline Silica SiO₂)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

T.W.A= Time Weighted Average

**Stability and Reactivity**

<table>
<thead>
<tr>
<th>Conditions to avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>None.</td>
</tr>
</tbody>
</table>

**Materials to avoid**

| None.                |

**Hazardous Decomposition Products**

| None.                |

**Personal Protection**

<table>
<thead>
<tr>
<th>Respiratory Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable respiratory protective equipment</td>
</tr>
</tbody>
</table>

**Hand Protection**

| Impervious gloves |

**Toxicological Information**

Skin contact could result in dermatitis and skin burns or disease. Inhalation or respirable dust from the working of hardened concrete may cause permanent lung damage.
## Skin Protection
Long sleeved clothing, full length trousers and impervious boots

## Eye Protection
Goggles may be required

### Ecological Information

<table>
<thead>
<tr>
<th>Possible Effects</th>
<th>None.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour</td>
<td>Non Hazardous.</td>
</tr>
<tr>
<td>Environmental Assessment</td>
<td>When used and disposed of as intended, no adverse environmental effects are foreseen.</td>
</tr>
</tbody>
</table>

### Disposal

<table>
<thead>
<tr>
<th>Likely Residues/Waste Product</th>
<th>Alkaline slurry. Inert hardened material.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe Handling of Residues/Waste Product</td>
<td>Aggregates are inert but should be disposed of in accordance with local and national legal requirements. See the Environmental Protection Act 1990 'Duty of care' and other current legislation.</td>
</tr>
</tbody>
</table>

### Regulatory Information

This product is NOT classified as dangerous for transport.

### 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.

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 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.

### Training Advice

Wear and use of PPE

### Further Information

- Head of Safety, Health and Environment
- Breedon Southern Limited
- Telephone (01332) 694010
- Key data used to compile data sheet
- HSE Guidance Note EH40/2011
- PPE Regulations 1992
- COSHH Regulations 2002 (sixth edition) 2013
- Environment Protection Act 1990
- HSE Crystalline Silica EH59
- Further copies of this Safety Data Sheet may be obtained from either Breedon Southern Limited or Breedon Northern Limited.