

## Ready-mixed concrete

### 1. Identification of the substance/mixture and of the company/undertaking

#### Product identification

Ready-mixed concrete is a high grade construction material.

#### Identified uses of the substance or mixture

Used as a construction material in public and private infrastructure construction projects.

#### Company Identification

Accumix Concrete Ltd  
Oakdale Trading Estate  
Ham Lane  
Kingswinford  
DY6 7JH  
United Kingdom

#### Emergency contact details

Telephone: +44 (0) 1384 296986  
(Mon. to Fri. 8 am to 5 pm)

### 2. Hazards identification

#### Classification of the substance or mixture

Classification according to Regulation EC 1272/2008:



Corrosive

**Warning – Wet concrete can cause serious alkali burns if in direct contact with skin or eyes.**

#### Wet concrete

Wet concrete contact with eyes may cause severe irritation and/or alkali burns.

Skin contact may result in contact dermatitis and/or ulceration due to the combination of wetness, alkalinity and abrasiveness of the cement mixture.

This may not be readily apparent till after exposure, due to potential nerve damage on contact.

Skin contact may also trigger allergic dermatitis reaction caused by an individual's sensitivity to chromium compounds present in cement.

#### Dry concrete

Inhalation of silica particles in dust caused by cutting/surface treatment of hardened concrete may cause respiratory damage. This product gives the potential for generation of respirable dust if the product is drilled, cut, sawn, crushed or accidentally broken up. This dust may contain respirable crystalline silica. Prolonged inhalation of respirable dust can constitute a long term health hazard such as lung fibrosis. Repeated inhalation of excessive amounts of respirable silica may cause silicosis.

#### Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

### 3. Composition/information on ingredients

#### Mixtures

Ready-mixed concrete is made from a mix of raw materials, including:

- Sand
- Aggregates
- Cement
- Water
- Admixtures

The latter ingredients are added in small quantities to alter or improve the properties of the concrete in either its plastic or hardened state and to meet customer requirements.

Portland Cement and Respirable Crystalline Silica has the following hazard information:

	Portland Cement	Respirable Crystalline Silica
CAS No.	65997-15-1	14808-60-7
EC No.	266-043-4	238-878-4
Index No.	[-]	[-]
Classification	STOT SE3 H315, H317, H318, H335	STOT RE2, H373i
Concentration	Variable depending upon mix design	Variable depending upon mix design & source

For the full text of the H-Statements mentioned in this section, see section 15.

# Ready-mixed concrete

## 4. First aid measures

### Description of first aid measures

#### Skin contact

For wet concrete – If wet concrete enters boots or gloves, or saturates clothing, remove the articles wash the affected skin area with soap/cleanser and rinse with plenty of water. If irritation persists, obtain prompt medical attention.

Clothing that has become contaminated by fresh concrete should be thoroughly washed before re-use.

For set concrete – Remove any contaminated clothing and wash the affected skin area with soap/cleanser and rinse with plenty of water. If irritation persists, obtain prompt medical attention.

#### Inhalation

For set concrete inhalation of dust – Remove to fresh air and allow person to rest. If recovery is not rapid obtain prompt medical attention.

#### Eye contact

For wet concrete – Do not rub eyes, as the material is abrasive and may scratch the surface of the eye. Immediately and thoroughly irrigate with clean water for at least 15 minutes. **DO NOT USE SALINE EYEWASH SOLUTION.** Seek medical attention if immediately.

For set concrete – Do not rub eyes, as the material is abrasive and may scratch the surface of the eye. Immediately and thoroughly irrigate with clean water or eyewash solution.

Seek medical attention if irritation persists.

#### Ingestion

For wet concrete – If material enters the mouth, do not induce vomiting. Give plenty of water to drink. Seek medical immediately.

For set concrete – Give plenty of water to drink. Seek medical attention if feeling unwell.

## 5. Firefighting measures

### Suitable/unsuitable extinguishing media

Material is not flammable or combustible. Use media suitable for other any other materials present that may be involved in a fire. There is no unsuitable fire extinguishing media.

### Special hazards arising in a fire

None.

### Special advice for fire fighters

Fire water runoff from wet concrete may become alkaline, so avoid entering watercourses.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear impervious clothing, gloves and boots. Wear eye protection. See section 8 for guidance on personal protective equipment.

### Environmental precautions

Fresh wet concrete should not be allowed to accidentally enter watercourses.

### Methods and materials for containment and cleaning up

Clean up any spillage before the concrete hardens, do not dry sweep residues.

## 7. Handling and storage

### Precautions for safe handling

- Avoid wet concrete coming into contact with skin and eyes. Do not sit or kneel on wet concrete
- if it is necessary to, operatives should thoroughly wash their hands before handling cigarettes, food, or drink
- Ensure set concrete material is handled so as to prevent the generation of dust.

### Safe storage

- No special requirement.

## 8. Exposure controls/personal protection

### Control parameters

### Components with workplace exposure limits (WELs)

Component	WEL (8Hr TWA)
Total Inhalable dust	10mg/m <sup>3</sup>
Respirable dust	4mg/m <sup>3</sup>
Respirable crystalline silica	0.1mg/m <sup>3</sup>

It is recommended that occupational monitoring be completed to determine exposure.

### Exposure controls

#### Appropriate engineering controls

Use in well ventilated areas. Use mechanical ventilation in poorly ventilated areas.

#### Eye/face protection

Wet concrete – Eye protection in the form of safety glasses and/or goggles is required to protect against accidental splashes. Set concrete – Eye protection in the form of safety glasses and/or goggles is required to protect against dust particles.

#### Hand protection

Wet concrete – Recommend use of impervious heavy duty gloves/gauntlets. Gloves should be removed and hands thoroughly washed before handling or eating any food or drink. Dry concrete – Recommend use of heavy duty gloves to prevent mechanical abrasion.

#### Skin protection

Wet concrete – Impervious clothing, consisting of overalls or full length sleeved top and trousers together with water resistant safety boots and/or wellington boots. Dry concrete – Overalls/impervious clothing, selected according to the workplace conditions.

# Ready-mixed concrete

## Respiratory protection

Wet concrete – No requirement.

Set concrete – Suitable dust masks should be worn where there is likely to be dust generated. The Chemical Agents Directive shows a requirement for respirators as a means of control should use a particulate filter type P3 or equivalent.

## 9. Physical and chemical properties

Physical and chemical properties will vary dependent source, but generic properties are as follows:

Appearance	Grey granular paste
Odour	Characteristic earthy odour
pH	10-14, Alkaline
Boiling Point	Not determined
Melting Point	Not determined
Flash Point	Not Applicable
Flammability	Not Applicable
Auto Flammability	Not Applicable
Explosive Properties	Not Applicable
Oxidising Properties	Not Determined
Vapour Pressure	Not Applicable
Relative Density	Approx. 2,400 kg/m <sup>3</sup>
Water Solubility	Insoluble in water
Fat solubility	Not determined

## 10. Stability and reactivity

### Reactivity and chemical stability

Stable at normal temperatures and under recommended storage conditions.

### Conditions to avoid

None.

### Incompatible materials

Strong mineral acids.

### Hazardous decomposition products

None.

## 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Wet concrete – Can cause serious alkali burns to skin and eyes.

Set concrete – None.

#### Eye damage

Wet concrete – Can cause irritation, inflammation and serious burns that can lead to blindness.

Set concrete – Long term contact with eyes can cause eye irritation and damage.

#### Skin corrosion/irritation

Wet concrete – Long term contact may result in skin sensitisation, skin disease and dermatitis, due to the alkali nature of cement and/or presence of chromium.

Dry concrete – Long term contact with skin may cause mechanical skin irritation and possible dermatitis.

#### Respiratory sensitisation

Wet concrete – None.

Dry Concrete – Chronic exposure by inhalation of concrete dust may cause cough, breathlessness and lung fibrosis.

#### Specific target organ toxicity -

repeated exposure

Prolonged exposure of respirable crystalline silica fraction by inhalation may lead to silicosis in lungs.

#### Carcinogenicity

IARC classified respirable crystalline silica as a Group 1 carcinogen, therefore long term exposure may cause cancer.

## Ingestion

Wet concrete – In large quantities may cause irritation to the stomach and intestines.

Dry concrete – Not likely to cause long term problems.

## 12. Ecological information

### Environmental assessment

When used and disposed of as intended, no adverse environmental effects are foreseen. However, material should be refrained from entering watercourses or drains as it can cause blockages.

### Mobility

Set ready-mixed concrete materials are immobile.

### Persistence and degradability

Set ready-mixed concrete materials are resistant to degradation and will persist in the environment.

### Ecotoxicity

Set concrete is not expected to be toxic to aquatic organisms. Fresh wet concrete may cause damage to fish and aquatic organisms due to increased pH levels.

### Bioaccumulative potential

Not applicable.

### Results of PBT and vPvB assessment

Will not meet PBT or vPvB criteria.

# Ready-mixed concrete

## 13. Disposal considerations

### Waste treatment methods

#### Product

Set ready-mixed concrete is classified as an inert waste and can be disposed of as normal industrial waste in accordance with waste regulation.

It is recommended that it be disposed of via recycling or reuse.

Wet concrete is hazardous waste and should be allowed to set before disposal.

### Contaminated packaging

Not applicable.

## 14. Transport information

### Special carriage information

None. This product is NOT classified as dangerous for transport.

## 15. Regulatory information

Classification: **Corrosive**.

### Text of H-code(s) and P-codes(s) mentioned in Section 3

#### Hazard statement(s)

H314 – Causes severe skin burns and eye damage.

H315 – Causes skin irritation.

H317 – May cause allergic skin reaction.

H318 – Causes serious eye damage.

H335 – May cause respiratory irritation.

H372 – Causes damage to organs through prolonged and repeated exposure (inhalation of respirable silica if hardened concrete is cut or drilled).

### Precautionary Statement(s)

P102 – Keep out of reach of children.

P261 – Avoid breathing dust.

P262 – Do not get in eyes, on skin, or on clothing. P281 – Use personal protective equipment as required (see section 8).

### Safety, health and environmental regulations/legislation specific for the substance or mixture

Health & Safety at Work etc. Act 1974.

Control of Substances Hazardous to Health Regulations 2002 (as amended).

Classification, Labelling and Packaging of Substances and Mixtures Regulations 2008 (as amended).

EH40/2005 Workplace Exposure Limits (as amended).

HSE Crystalline Silica EH59.

## 16. Other information

### Training and advice

Wear and use appropriate PPE.

### Recommended restrictions on use

Use in accordance with manufacturer's technical instructions.

### Key data used to compile data sheet

Classification, Labelling and Packaging of Substances and Mixtures Regulations 2008 (as amended).

EH40/2005 Workplace Exposure Limits (as amended).

HSE Crystalline Silica EH59.

**Legal notice:** The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. This information herein represents the best information currently available at the Revision Date. However, no warranty is expressed or implied with respect to such information and its use. Users should make their own investigations to determine the suitability of the information for their particular purposes and against all applicable legislation.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II