# FAHEY'S CONCRETE LTD.

ST BLAZEY, CORNWALL. PL24 2SX
Telephone St Austell (01726) 850086
Fax St Austell (01726) 851953
e-mail: faheysconcrete@faheysconcrete.co.uk


## READY MIXED CONCRETE HEALTH & SAFETY MATERIAL SAFETY DATA SHEET.

**Material Safety Data Sheet**
**Issue Date: October 2011**
**Review Date: 1st March 2025**
**Next Review Due: 1st March 2028**

## 1. IDENTIFICATION OF THE SUBSTANCE

# Ready Mixed Concrete

**Product description**

Concrete is a durable construction material with a wide variety of forms and applications. Ready mixed concrete is a tailored mix of raw materials and water, which is prepared in bulk at a concrete batching plant and discharged into truck mixers for delivery to site. The concrete is continually mixed during transportation to maintain the required consistency, quality and uniformity so that is ready for use on arrival.

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Ready mixed concrete is made from a mix of raw materials, In varying quantities depending on Grade and includes:

- Sand and gravel aggregates
- Cement either Portland Limestone or PCRM
- Water
- Ground Granulated Blast-furnace Slag (GGBS)
- Admixtures and additions such as fibers as required

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

## 3. HAZARDS IDENTIFICATION

**Wet Concrete**

The cement content of wet concrete can cause serious alkali burns if it is splashed into the eyes.

The cement content of wet concrete can also cause both dermatitis and burns or ulcers if it comes into contact with the skin.

Irritant dermatitis mat be caused by the physical properties of the cement, such as the fine particles, that abrade and irritate the skin mechanically. Allergic dermatitis may be caused by sensitization to the hexavalent chromium (chromate) present in the concrete, which penetrates the barrier layer (Dermis) of the skin.

Serious alkali burns, which may develop into ulcers, may occur if cement becomes trapped against the skin.

**Dry concrete and concrete dust**

There is a potential for respirable dust, including an element of respirable crystalline silica (quartz), to be released if the product in its hardened state is drilled, cut, sawn, crushed or accidentally broken up. This could pose a serious health hazard if inhaled over a prolonged period of time.

Dry concrete and concrete dust particles can also cause abrasion or irritation to skin and eyes

The weight of the product in its hardened state could pose a health hazard if inappropriate manual handling techniques are employed.

## 4. FIRST AID MEASURES

**Wet concrete**

**General**

Unlikely to be hazardous if handled correctly.

**Skin**

Wash thoroughly with clean water and soap as soon as contamination occurs and seek medical attention.

Note: This includes contact with the skin through contaminated clothing.

**Eyes**

Irrigate immediately and for at least 10 minutes with plenty of clean water and seek medical attention.

**Ingestion**

Drink plenty of water and seek medical attention.

**Dry concrete and concrete dust**

**General**

Unlikely to be hazardous if handled correctly.

**Inhalation**

Remove to a dust free area and seek medical attention if breathing difficulties are experienced.

For further guidance see HSE Publications EH44 Dust: General Principles of Protection, Getting to Grips with Manual Handling: a Short Guide and Information Sheet Number 26 (Revision 2) - Cement.

**Skin**

Wash thoroughly with clean and soap water. If prolonged contact causes irritation seek medical attention.

**Eyes**

Irrigate immediately with plenty of clean water and seek medical attention.

**Ingestion**

Drink plenty of water and seek medical attention.

## 5. FIRE FIGHTING MEASURES

No fire or explosive hazard.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Avoid contact with the eyes by wearing goggles. Avoid contact with the skin by wearing impervious protective clothing including safety boots, gloves and overalls with long sleeves and trousers. Avoid inhaling any dust by wearing a dust mask or respirator.

Note: Steps should be taken to prevent cement becoming trapped inside gloves or boots.

**Environmental measures**

Prevent the product from entering water courses, drains or sewers.

**Method of cleaning**

Any spillage of wet concrete should be recovered immediately whilst the product is in its plastic state and the affected area washed thoroughly.

Any deposits of dry product or concrete dust should be cleared by damp sweeping or vacuuming if possible. Dry sweeping should be avoided.

## 7. HANDLING AND STORAGE

**Wet concrete**

**Handling**

Avoid direct and indirect contact with the skin and eyes. Do not sit or kneel on wet concrete.

**Storage**

Not applicable – used immediately.

**Dry concrete and concrete dust**

**Handling**

The product should be handled in a manner that minimises the generation of airborne dust.

Manual handling of product should be avoided so far as is reasonably practical. Where this is not possible, an assessment should be made, taking into account the load, environment, task, and individual capability and training. Always employ good lifting techniques.

**Storage**

Not applicable – in situ when dried

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Wet concrete**

**Prevention measures**

Control measures and working practices should be instigated, which prevent or minimise the direct and indirect contact of wet concrete with the skin or eyes. To reduce the risk of allergic dermatitis developing, hands and other potentially exposed areas should be washed at regular intervals throughout the working day.

**Protection of skin and eyes**

Goggles and impervious protective clothing including safety boots, gloves and overalls with long sleeves and trousers should be worn.

Note: Steps should be taken to prevent cement becoming trapped inside gloves or boots.

**Dry concrete and concrete dust**

**Workplace Exposure limits**

Total Inhalable Nuisance Dust: 10.0 $mg/m^3$ (WEL)
Total Respirable Nuisance Dust: 4.0 $mg/m^3$ (WEL)
Respirable Crystalline Silica: 0.1 $mg/m^3$ (WEL)

All are given as maximum concentrations and expressed as an 8 Hour Time Weighted Average (8 Hr TWA).

**Prevention measures**

Use dust extraction, containment and suppression where possible. Undertake regular occupational dust surveys where personnel may be exposed to respirable dust and identify and implement further preventative measures as necessary.

**Respiratory protection**

Dust masks or respirators should be worn during handling and use of the product to accord with the relevant WEL listed above, particularly during drilling and cutting of dry concrete.

**Protection of skin and eyes**

Gloves, overalls and goggles should be worn during handling and use of the product.

## 9. PHYSICAL & CHEMICAL PROPERTIES

**Appearance**

Plastic when wet and hardened when dry.
Natural or coloured.

**Other Chemical Properties**

Detailed properties vary according to the required mix, however, all concretes are:

- Abrasive
- Alkaline (typically pH value 10 – 14)

## 10. STABILITY AND REACTIVITY

**Conditions and materials to avoid**

Not applicable.

## 11. TOXICOLOGICAL INFORMATION

**Description of toxicological properties**

Wet Concrete may cause irritation, dermatitis and burns or ulcers to the skin and irritation and burns to the eyes, due to the alkalinity and chromate content of cement. Dry concrete may impact on the respiratory system due to the generation of airborne dust, which may be inhaled. The behavior, deposition, fate of and response to any particular particle after entry into the human respiratory system depends on their nature and size. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung and is associated with health effects (see Hazards Identification).

## 12. ECOLOGICAL INFORMATION

**Environmental Assessment**

When used as intended no environmental impact is anticipated. However, do not allow material to enter water courses, drains or sewers.

## 13. DISPOSAL CONSIDERATIONS

**Handling of any residues/waste products**

As an inert material, hardened concrete should be disposed of to an approved solid waste disposal or landfill site.

## 14. TRANSPORT INFORMATION

**Special carriage precautions**

Not applicable

## 15. REGULATORY INFORMATION

Under the requirements of the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP 3) the Danger Classification for cement-based products is:

- Irritant (+hazard symbol)

In addition, the following risk and safety phrases are applicable:

- R38: Irritating to skin
- R41: Risk of serious damage to eyes.
- R43: May cause sensitisation by skin contact.
- S24: Avoid contact with skin.
- S25: Avoid contact with eyes.
- S26: If contact with eyes, rinse immediately with clean water and seek medical advice.

## 16. OTHER INFORMATION

**Training advice**

Wear and use appropriate PPE

**Recommended uses**

As a construction material in infrastructure and public and private construction projects.

**Further information sources**


Fahey's Concrete Ltd
Carne Cross Works
St Blazey Par
Cornwall
PL24 2SX

Tel. (01726) 850086
Fax. (01726) 851953


**Sources of key data used to compile data sheet**

EH40 2005 Workplace Exposure Limits (supplementary amendment 01 October 2006)
PPE Regulations 1992
Manual Handling Regulations 1992 (as amended)
COSHH Regulations 2002 (as amended)
COSHH (Amendment) Regulations 2004
CHIP Regulations 2002
Construction (Health, Safety and Welfare) Regulations 1996

**LEGAL NOTICE**


The information contained in this Safety Data Sheet was considered the best available at the date of issue. However, no warranty is made or implied that the information is accurate or complete.
It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.