

Roman Concrete

Health & Safety Product Data Sheet

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Product

Ready mixed concrete, Mortar & Screed by volumetric mixer

Supplier: ROMAN CONCRETE. 33, St Gregory's Crescent, Gravesend, DA12 4JS, Tel: 01474 745 054

Composition / Physical & Chemical Characteristics

Ready mixed concrete, mortar & screed is a mixture of natural aggregates, cement and water. Other ingredients may include Ground Granulated Blast furnace slag (GGBS), Pulverised Fuel Ash (PFA) such additions are made to alter/improve the properties of the concrete in the plastic or hardened state. Pigments may be added to colour the product. These Admixtures may be added to enhance either the workable characteristics of the material, or affect/ influence the hardened concrete.

The resultant mixture is abrasive and alkaline.

Application Ready mixed concrete is designed to enable the user to cast the plastic material into the required shape prior to hardening – this is helped by using volumetric mixers which supply the material.

Hazards

WARNING, WET CONCRETE / FLOOR SCREED IS A STRONG ALKALI

Wet concrete, Mortar & Screed:

Contact with **eyes** may cause severe irritation and/or alkali burns.

Skin contact may result in irritant contact dermatitis and/or ulceration due to the combination of wetness, alkalinity and abrasiveness of the freshly mixed concrete.

Contact with wet cement or concrete can cause skin diseases

Allergic Contact Dermatitis may be caused by individual sensitivity to chromium compounds, which occur in cement.

Ingesting of small amounts of concrete, mortar or screed is unlikely to cause any significant reaction, Swallowing larger amounts can cause irritation of the stomach and intestines.

Dry concrete/floor scree dust:

Inhalation of silica particles in dust caused by cutting/ surface treatment of hardened concrete may cause respiratory damage. If inhaled in excessive quantities over prolonged period's respirable dust containing quartz can constitute a long term health hazard.

Precautions / First Aid Measures

Wet Concrete, mortar & screed

Eye contact: Irrigate eyes immediately with clean water for at least 10 minutes. Seek immediate medical attention.

Direct **skin contact** with wet concrete should be avoided. It is also advisable not to sit or kneel on the wet material as harmful contact can occur through saturated clothing. Wash thoroughly with clean water as soon as contamination occurs. Note: This includes contact through contaminated clothing.

Ingestion: Wash out mouth, Drink plenty of water. Do not induce vomiting. Seek medical attention if a large amount is swallowed.

Inhalation of concrete, mortar & screed dust should be avoided. If irritation occurs, move to fresh air. If nose or airways become inflamed seek medical advice.

Fire fighting measures

Materials do not support combustion. So no fire or explosive hazard.

Accidental release measures

Personal protection: Avoid contact with skin or eyes. Protective clothing should be worn when handling wet concrete, particularly on arms, hands and feet (e.g. long sleeved clothing, gloves, full length trousers and impervious boots). Respiratory protective equipment should be worn during the surface treatment or cutting of hardened concrete where dust is generated.

Environmental measures: Prevent from entering watercourses, drains or sewers.

Method of cleaning: Any spillage should be recovered immediately while material is still in non-hardened (plastic) State and area washed thoroughly if applicable.

Handling and storage

Wet concrete, Mortar & Screed:

Avoid direct skin and eye contact. The risk of dermatitis and burns are increased if the material is allowed to continue to rub against the skin e.g. in Gloves or down boots, Do not sit/kneel on wet concrete.

Dry concrete/floor screed dust:

Minimise creation of dust wherever possible, with work methods and engineering controls being used to reduce exposure. It is strongly advised to have personal protective equipment in such circumstances.

Exposure controls/personal protection

Wet concrete, Mortar & Screed:

Hand protection: Wear suitable impervious gloves.

Eye protection: Suitable eye protection is strongly recommended where there is a risk of accidental splashing.

Skin protection: Impervious long sleeved clothing, full length. Wear trousers and impervious safety boots to prevent wet concrete/floor screed coming into contact with skin.

Dry concrete/floor screed dust:

Occupational Exposure Standards (OES), or Workplace Exposure Limits (WEL), for inhalants and respirable dusts are set by the Health and Safety Executive.

These are published annually in HSE Guidance Note EH40. The following limits (8 hour time weighted averages) (TWA)

Total inhalable dust 10mg/m³ OES

Respirable dust 4 mg/m³ OES

Respirable crystalline silica 0.1mg/m³ WEL.

Engineering control measures: Containment and local exhaust ventilation where airborne dust is likely to reach exposure limits.

Respiratory protection: Suitable respiratory protective equipment to HSE approved standard if engineering control measures are insufficient

Physical and chemical properties

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

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

Stability and reactivity

No safety issues relating to stability and reactivity of product under normal conditions.

Becomes Alkaline with the addition of moisture.

Toxicological information

Wet concrete, mortar & screed:

Eye contact: May cause irritation or alkali burns.

Skin contact: May cause alkali burns and acute allergic dermatitis in people sensitised to chromium compounds. Long term exposure may cause irritant contact dermatitis, which can lead to sensitisation of the skin to chromium compounds.

Inhalation: Inhalation of large quantities of dust may cause lung damage, leading to permanent disability and in extreme cases may lead to premature death.

Ingesting of small amounts of concrete, mortar or screed is unlikely to cause any significant reaction, Swallowing larger amounts can cause irritation of the stomach and intestines.

Dry concrete/floor screed dust:

Eye contact: May cause transient irritation.

Skin contact: No harm likely with brief or occasional contact

Inhalation: Inhalation of large quantities of dust may cause lung damage, leading to permanent disability and in extreme cases may lead to premature death.

Ingestion: No harm likely

Ecological information

When used as intended no environmental impact is anticipated.

Do not allow material to enter watercourses, drains or sewers.

Transportation & Waste Disposal

The carriage of concrete is not subject to hazardous substance conveyance regulations and vehicle labelling is not required. In the event of spillage, entry of material to watercourses should be avoided. Unused hardened concrete is not hazardous but should be disposed of in accordance with local legal requirements.

Regulatory information

- Chemicals (Hazard Information and Packaging for Supply) Regulations
- Classification: Irritant (+hazard symbol)
- 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

Key data used to compile data sheet

Statutory - Health & Safety at Work Act 1974

Consumer Protection Act 1987

Environmental Protection Act 1990

HSE Guidance note EH40/2005

P.P.E Regulations 1992

COSHH Regulations 2002 (fifth edition) 2005.

Legal notice

The information contained in this Health and 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. If purchasing on behalf of a third party who will work with the material it is your statutory duty to pass on this information to them BEFORE such work begins.