

PRODUCT SAFETY DATA SHEET

SMS 05-COSHH



1. Identification of Substances and Company

Ready Mixed Concrete

Grange Quarry Ltd
Kirkburn Industrial Estate
Lockerbie
DG11 2FF
Telephone: 01576 490490
info@grangequarry.co.uk

2. Composition-Information on Ingredients

The product is a mixture of Cement, (or Cement mixed with ground granulated blast furnace slag, pulverised fly ash or silica fume), Aggregate, Water and various Admixtures and pigments. Proportions vary depending on the requirements of the concrete. The resultant mixture is abrasive and highly alkaline.

3. Hazards Identification

Skin: Contact with wet cement and concrete can cause the following skin damage: Cement Burns – A form of skin ulceration caused by extended contact with wet concrete. Wet cement is highly alkaline and has a pH value of about 12.5.

Irritant contact dermatitis – caused by the combination of the alkalinity and the abrasiveness of wet concrete.

Allergic contact dermatitis – may be caused by individual sensitivity to hexavalent chromate ions which can occur in cement.

Eyes: Contact can cause irritation inflammations or burns

Ingestion: Swallowing small amounts of concrete is unlikely to cause any significant reaction. Larger amounts can cause irritation of the stomach and intestines

4. First Aid Measures

Inhalation

Not Applicable

Skin Contact

Where contact occurs whether directly or through saturated clothing, wash immediately with soap and water. If 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. Drink plenty of water. Do not induce vomiting. Seek medical advice if a large amount is swallowed.

6. Fire Fighting Measures

Suitable extinguishing media	N/A
Unsuitable Extinguishing Media	N/A
Special Exposure Hazards in Fire	None
Special PPE for Firefighters	None

6. Accidental Release Measures

Personal Precautions

Use personal protection equipment. See section 8

Environmental Precautions

Allowing entry into watercourses should be avoided

Methods of Cleaning

No special requirements but clean without delay before concrete hardens

7. Handling and Storage

Handling

Skin contact should be avoided. Wet concrete is abrasive and highly alkaline.

Storage

The hardening process of wet concrete takes time. Until the concrete has hardened the precautions given in the data sheet should continue to be taken and access by unauthorised persons should be prevented.

8. Exposure Controls - Personal Risks

Preventative Measures

Direct skin contact with fresh concrete should be avoided. It is also important not to kneel or sit on the concrete as harmful contact can occur through saturated clothing.

The surface treatment and cutting of hardened concrete, which may contain high silica aggregates can create dust. If inhaled in excessive quantities over a long period, concrete dust containing silica can constitute a long term hazard.

Workplace Exposure Limits (O.E.S)

Total Dust O.E.S	10mg/m ³	8hrs T.W.A
Respirable Dust O.E.S	4mg/m ³	8hrs T.W.A
Respirable Quartz M.E.L	0.1mg/m ³	8hrs T.W.A

Crystalline Silica SiO₂

Respirable Protection

Suitable respiratory protective equipment to HSE standards

Hand Protection

Impervious gloves

Eye Protection

Goggles may be required if there is a risk of accidental splashing

Skin Protection

Long sleeved clothing with full length trousers, knee pads if kneeling on concrete, impervious boots

9. Physical and Chemical Properties

Appearance:	Grey granular paste
Odour:	None
Ph:	Highly alkaline Ph 10 - 14
Boiling Point Range:	Not Determined
Melting Point Range:	Not Determined
Flash point:	N/A
Flammability:	N/A
Auto Flammability:	N/A
Explosive Properties:	N/A
Oxidising Properties:	N/A
Vapour Pressure:	N/A
Relative Density:	Above 2.0. Avg 2.3
Water Solubility:	Rock Type Dependent
Fat Solubility:	Not Determined

10. Stability and Reactivity

Conditions to Avoid

None

Materials to Avoid

None

Hazardous Decomposition Products

None

11. Toxicological Information

Skin contact could result in dermatitis and skin burns or disease. Eye contact may cause irritation or in severe cases alkali burns.

Inhalation of respirable dust from the surface treatment or cutting of hardened concrete can cause permanent lung damage.

12. Ecological Information

Environmental Assessment

When used and disposed of as intended no adverse environmental effects are expected

13. Disposal Consideration

Likely Residues – Waste Products

Alkaline Slurry

Safe Handling of Residues – Waste Product

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.

14. Transport Information

Special carriage requirements

Not hazardous. No vehicle labelling required

15. Regulatory Information

Chemicals regulations 1997: Classification: IRRITANT

16. Other Information

HSE Guidance Note EH40/99

COSHH Regulations 1992

COSHH Regulations 1994

PPE Regulations 1992

Environmental Protection Act 1990

HSE Crystalline silica EH59