

SAFETY DATA SHEET

REF No. MGUN/2

Issued Nov 06

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1. PRODUCT AND COMPANY IDENTIFICATION:

TRADE NAME: MONOGUN**DESCRIPTION:** Single component polymer modified sprayed mortar for machine application using the dry process.**COMPANY:** Flexcrete Technologies Limited, Tomlinson Road, Leyland, Lancashire, PR25 2DY, England.**EMERGENCY TELEPHONE NUMBER: +44 (0) 845 260 7005**

2. COMPOSITION/INFORMATION ON INGREDIENTS:*

SUBSTANCES PRESENTING A HEALTH HAZARD WITHIN THE MEANING OF THE CHEMICALS (HAZARD INFORMATION & PACKAGING) REGULATIONS 1994.

INGREDIENT	CONCENTRATION %	CAS NUMBER	HAZARD	R. PHRASES
Portland cement	16.5	65997-15-1	Xi	R36/37/38-41
Hydrated lime	< 1.0	1305-62-0		
Sodium silicate	< 0.5	1344-09-8		

R36/37/38 : Irritating to eyes, respiratory system and skin.

R41 : Risk of serious damage to eyes.

3. HAZARD IDENTIFICATION:

Xi Irritant Risk of serious damage to eyes.

NOTE Contains soluble chromium (VI) controlled by the addition of a reducing agent to no more than 2ppm by dry weight of cement when mixed with water, for a period of 12 months from the date of manufacture shown on this package under the stipulated storage conditions. Use of this product after the end of this period or under different storage conditions may increase the risk of an allergic reaction. PPE must still be worn.

S26-28-36/37/39 : see Section 15

4. FIRST AID MEASURES:

INHALATION: Remove patient from exposure, keep warm and at rest. If dry powder has been inhaled, the nose and throat should be thoroughly irrigated with water for at least 20 minutes.**SKIN CONTACT:** Remove contaminated clothing. After contact with skin, wash immediately with plenty of clean water (S28). Repeated contact over a prolonged period may produce an allergic reaction. Seek medical attention if irritation persists.**EYE CONTACT:** SPEED IS ESSENTIAL. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice (S26). Remove any large particles with cotton wool bud. Contact lenses should be removed. Eye wash stations should be available in areas where exposure is possible.**INGESTION:** Do not induce vomiting. Wash mouth out with water and, if conscious, give plenty of water to drink. Seek medical attention.**NOTE** If symptoms persist, seek medical advice.

5. FIRE FIGHTING MEASURES:

SUITABLE EXTINGUISHER MEDIA: Will not support combustion. Compatible with all standard fire fighting techniques.**EXPOSURE HAZARDS:** Fire or decomposition products may contain oxides of carbon. The powder releases alkalis on contact with water and chemically hardens.

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6. ACCIDENTAL RELEASE MEASURES:

PERSONAL PRECAUTIONS: Ensure adequate ventilation.
Wear suitable protective clothing, gloves and eye/face protection (S36/37/39).
Avoid contact with eyes (S25).
Do not breathe dust (S22).
SEE "EXPOSURE CONTROLS/PERSONAL PROTECTION"

ENVIRONMENTAL PRECAUTIONS: If material enters drains or sewers, dilute as much as possible with water.
In case of contamination of streams, rivers or lakes, contact the National Rivers Authority.

CLEANING UP METHODS: Carefully sweep or vacuum up the product and transfer to marked containers to await disposal.
Wash away any residue with plenty of clean water.
SEE "DISPOSAL CONSIDERATIONS" and "STABILITY AND REACTIVITY"

7. HANDLING AND STORAGE:

HANDLING: Wear suitable protective clothing, gloves and eye/face protection (S36/37/39).
Eye wash stations should be available in areas where accidental exposure is possible.
The normal precautions relating to handling chemicals must be observed.
Use to minimise the creation of dust and ensure adequate ventilation to keep the airborne concentrations below the recommended exposure limits.
SEE "EXPOSURE CONTROLS/PERSONAL PROTECTION"

STORAGE: Store in dry, frost free conditions, in original containers. Protect from high temperatures (40°C+) for prolonged periods.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:*

WORKPLACE EXPOSURE LIMITS EH40/2005 (Check current edition of EH40 to ensure limits have not changed.)

TWA - Time Weighted Average

STEL - Short Term Exposure Limit

INGREDIENT	REFERENCE PERIOD			
	8 hour TWA		15 minutes STEL	
	ppm	mg/m ³	ppm	mg/m ³
Silica amorphous - total inhalable dust	---	6	---	---
	---	2.4	---	---
Hydrated lime	---	5	---	---
Portland cement - total inhalable dust	---	10	---	---
	---	4	---	---

Further information is given in Guidance Note EH 44 - Dust in the Workplace.

RESPIRATORY: Normal conditions of ventilation are usually adequate. Wear a fine particle mask or use local exhaust ventilation as necessary when gunning or whenever there is any risk of the exposure limits being exceeded. This applies not only to the user, but to all people who cannot be vacated from the work area.

HAND: Use heavy duty gloves. Gloves may degrade or be damaged according to different circumstances of use. Always ensure gloves you are using are in good condition. Barrier creams may help to protect exposed areas but are not substitutes for full physical protection. They should not be applied once exposure has occurred.

EYE: Eye protection designed to protect against liquid splashes, conforming to EN 1166 Chemical Grade, should be worn when handling dry powder or when gunning. Eye protection is essential when handling alkaline material.

SKIN: Wear suitable overalls. Remove grossly contaminated clothing and wash skin with plenty of clean water. Practice good personal hygiene.

ALL PERSONAL PROTECTION EQUIPMENT MUST BE SELECTED TO MEET THE REQUIREMENTS OF THE COSHH REGULATIONS.

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9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:	concrete grey fine powder	BULK DENSITY:	1350 - 2000 kg/m ³
ODOUR:	none	SOLUBILITY IN WATER:	insoluble
pH:	12.5 when mixed with water		

10. STABILITY AND REACTIVITY:

STABLE UNDER NORMAL CONDITIONS OF STORAGE (SEE "HANDLING AND STORAGE")

CONDITIONS TO AVOID:	Releases alkalis on contact with water and chemically hardens.
MATERIALS TO AVOID:	Reacts vigorously with strong acids and, in the presence of moisture, will attack aluminium, lead and brass.
HAZARDOUS DECOMPOSITION PRODUCTS:	May contain oxides of carbon.
HAZARDOUS POLYMERISATION:	None known.

11. TOXICOLOGICAL INFORMATION:

THIS IS NOT A FULLY TESTED PRODUCT, BUT ASSESSMENT OF THE HAZARDOUS SUBSTANCES SUGGESTS THE FOLLOWING RISKS:

INHALATION:	Dust nuisance. Prolonged exposure to dust may cause irritation to the respiratory system.
SKIN:	In contact with water or body fluids, alkalis are released which can cause irritation of the skin. Continuous or repeated exposure over a period of time may cause burns or an allergic reaction.
EYE:	Risk of serious damage to eyes.
INGESTION:	Small amounts are unlikely to cause any significant reaction. Larger doses may result in irritation or blockage of the gastro-intestinal tract. Unlikely to result in poisoning due to the large volume of material which must be ingested.

The engineering controls and personal protection equipment advised in this Safety Data Sheet are to ensure the occupational exposure limits are not exceeded. Should this happen to anyone within the affected area, there could be delayed adverse health effects.

12. ECOLOGICAL INFORMATION:

Product should not be disposed of into rivers or other water courses without pre-treatment. Measures should be taken to prevent the release of dust to the environment. Appropriate additions of low concentrations to biological water treatment plants are not expected to cause any disturbances. Attention must be paid to local water treatment regulations.

AQUATIC TOXICITY RATING:	LC ₅₀ aquatic toxicity rating not determined. The addition of cementitious materials to water will, however, cause the pH to rise and therefore be toxic to aquatic life in some circumstances.
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13. DISPOSAL CONSIDERATIONS:

The product is not classified as hazardous waste and is suitable for controlled waste site disposal. Do not allow into water courses or dispose of where ground or surface waters may be affected.

DISPOSE OF IN ACCORDANCE WITH LOCAL AND NATIONAL REGULATIONS

Further information on disposal methods and contractors is available from the National Association of Waste Disposal Contractors.

Tel: 020 7824 8882

Fax: 020 7824 8753

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14. TRANSPORT INFORMATION:

CONVEYANCE CLASSIFICATION: Not classified.

15. REGULATORY INFORMATION:

EC HAZARD CLASSIFICATION: Xi Irritant

RISK PHRASES: R36/37/38 : Irritating to eyes, respiratory system and skin.
R41 : Risk of serious damage to eyes.

SAFETY PHRASES: S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 : After contact with skin, wash immediately with plenty of soap and water.
S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.

NOTE: Contains soluble chromium (VI) controlled by the addition of a reducing agent to no more than 2ppm by dry weight of cement when mixed with water, for a period of 12 months from the date of manufacture shown on this package under the stipulated storage conditions. Use of this product after the end of this period or under different storage conditions may increase the risk of an allergic reaction. PPE must still be worn.

OCCUPATIONAL EXPOSURE LIMITS AND STANDARDS ARE ADVISED IN PUBLICATION EH40 FROM THE HSE FOR THE PURPOSE OF REGULATION 7(1) OF THE COSHH REGULATIONS.

16. OTHER INFORMATION:

TRAINING ADVICE: The user should be trained to handle the products to avoid the creation of dust and be fully aware of the reaction and hazards. The normal precautions relating to handling chemicals must be observed.

RECOMMENDED USES: Machine application using dry process spraying equipment.

COMPILED BY: C.G. Lloyd, Director

DATA SOURCES: EH40/2005 Occupational Exposure Limits 2005.
HSE Guidance Note EH44; Dust in the Workplace: General Principles of Protection.
Control of Substances Hazardous to Health Regulations 1995.

THIS SAFETY DATA SHEET FOLLOWS THE REQUIREMENTS OF DIRECTIVE 93/112/EC. THE INFORMATION CONTAINED HEREIN IS CORRECT TO THE BEST OF OUR KNOWLEDGE AT THE DATE OF PUBLICATION AND NO LIABILITY CAN BE ACCEPTED FOR ANY LOSS, INJURY OR DAMAGE RESULTING FROM ITS USE. IT IS INTENDED AS A GUIDE FOR THE SAFE HANDLING, STORAGE AND USE UNDER NORMAL CONDITIONS, BUT IT DOES NOT NECESSARILY REFER TO THE PARTICULAR REQUIREMENT OF THE CUSTOMER WHEN FURTHER ADVICE SHOULD BE OBTAINED.