

# SAFETY DATA SHEET

REF No. 841/2

Issued Nov 06

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## 1. PRODUCT AND COMPANY IDENTIFICATION:

**TRADE NAME:** STEEL REINFORCEMENT PROTECTOR 841**DESCRIPTION:** Two component, styrene acrylic modified, fibre reinforced, Portland cement coating.**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 &amp; PACKAGING) REGULATIONS 1994.

INGREDIENT	CONCENTRATION %	CAS NUMBER	HAZARD	R. PHRASES
Portland cement	25 (Part B)	65997-15-1	Xi	R36/37/38-41
Silica flour	< 7.5 (Part B)	14808-60-7		
Hydrated lime	< 2.0 (Part B)	1305-62-0		
Sodium nitrite	< 1.0 (Part B)	7632-00-0		
1,2 benzisothiazolin-3-one	< 0.05 (Part A)	2634-33-5		

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. If distress is felt after inhalation of vapours, summon medical aid. Inhalation of free silica over a prolonged period can give rise to fibrosis of the lungs.**SKIN CONTACT:** Remove contaminated clothing. After contact with skin, wash immediately with plenty of clean water (S 28). 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 (S 26). 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.**SPECIAL PROTECTIVE EQUIPMENT:** In a sustained fire, self contained breathing apparatus should be worn.

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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, river or lakes, contact the National Rivers Authority.

**CLEANING UP METHODS:** Carefully sweep or vacuum up any mixed mortar and/or dry powder. Soak up polymer with sand or sawdust.  
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 <sup>3</sup>	ppm	mg/m <sup>3</sup>
Silica amorphous - total inhalable dust	---	6	---	---
	---	2.4	---	---
Silica crystalline - respirable dust	---	---	---	---
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 respirator, or use local exhaust ventilation as necessary when mixing in confined areas with inadequate ventilation 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 there is risk of material entering the eye. 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:**

	<b>Part A</b>	<b>Part B</b>
<b>APPEARANCE:</b>	milky white liquid	grey/green fine powder
<b>ODOUR:</b>	slight	none
<b>pH:</b>	9	12.5 when mixed with water
<b>RELATIVE DENSITY:</b>	1.02	
<b>BULK DENSITY:</b>		1100 - 1550 kg/m <sup>3</sup>
<b>BOILING POINT:</b>	100°C	
<b>FLAMMABILITY:</b>	dewatered polymer readily burns	
<b>SOLUBILITY IN WATER:</b>	fully miscible	insoluble

**10. STABILITY AND REACTIVITY:**

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

<b>CONDITIONS TO AVOID:</b>	Powder releases alkalis on contact with water and chemically hardens.
<b>MATERIALS TO AVOID:</b>	Powder reacts vigorously with strong acids and, in the presence of moisture, will attack aluminium, lead and brass. Do not allow polymer to come into contact with metals or alloys that are liable to corrosion.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	May contain oxides of carbon.
<b>HAZARDOUS POLYMERISATION:</b>	None known.

**11. TOXICOLOGICAL INFORMATION:**

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

<b>INHALATION:</b>	Dust nuisance. Prolonged exposure to dust may cause irritation to the respiratory system. Prolonged exposure to product may cause inflammation of mucus membranes. Inhalation of free silica over a prolonged period can give rise to fibrosis of the lungs.
<b>SKIN:</b>	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. Levels of 1,2 benzisothiazolin-3-one below 500 ppm are not likely to cause skin sensitisation.
<b>EYE:</b>	Risk of serious damage to eyes.
<b>INGESTION:</b>	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.

<b>AQUATIC TOXICITY RATING:</b>	LC <sub>50</sub> 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. Large quantities of polymer must be coagulated before disposal.

**DISPOSE OF IN ACCORDANCE WITH LOCAL AND NATIONAL REGULATIONS**

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**14. TRANSPORT INFORMATION:**

**CONVEYANCE CLASSIFICATION:** Not classified

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**15. REGULATORY INFORMATION:\***

**EC HAZARD CLASSIFICATION:** Xi Irritant

**RISK PHRASES:** (Part B) 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.

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

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**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 reactions and hazards. The normal precautions relating to handling chemicals must be observed.

**RECOMMENDED USES:** The protection of ferrous metals.

**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.

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**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.**