

# SAFETY DATA SHEET

REF No.      TFILL/4

Issued Apr 11

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## 1. PRODUCT AND COMPANY IDENTIFICATION:

**TRADE NAME:**      TIEFILL**DESCRIPTION:**      Single component, polymer modified, fibre reinforced, Portland cement based fast setting repair mortar.**COMPANY:**          Flexcrete Technologies Limited, Tomlinson Road, Leyland, Lancashire, PR25 2DY, England.**EMERGENCY TELEPHONE NUMBER: +44 (0) 845 260 7005**

## 2. 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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS:\*

SUBSTANCES PRESENTING A HEALTH HAZARD WITHIN THE MEANING OF THE CHEMICALS (HAZARD INFORMATION &amp; PACKAGING) REGULATIONS 2009.

INGREDIENT	CONCENTRATION %	CAS NUMBER	HAZARD	R. PHRASES
Portland cement	< 20	65997-15-1	Xi	R36/37/38-41
Calcium sulfoaluminate cement	< 10	12004-14-7	Xi	R41
Citric acid	< 0.5	77-92-9		
Sodium carbonate	< 0.5	497-19-8		

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

R41                      : Risk of serious damage to eyes.

## 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. 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. Drink plenty of water and 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, river or lakes, contact the Environment Agency.

**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 with revisions 2007 (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>
Portland cement - total inhalable dust	---	10	---	---
- respirable dust	---	4	---	---
Calcium sulphoaluminate cement	no information available			
Citric acid	no information available			
Sodium carbonate	no information available			

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 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 mixed 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>APPEARANCE:</b>	concrete grey granular powder	<b>BULK DENSITY:</b>	1450 - 1900 kg/m <sup>3</sup>
<b>ODOUR:</b>	none	<b>SOLUBILITY IN WATER:</b>	insoluble
<b>pH:</b>	12.5 when mixed with water		

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**10. STABILITY AND REACTIVITY:**

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

<b>CONDITIONS TO AVOID:</b>	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.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	May contain oxides of carbon.
<b>HAZARDOUS POLYMERISATION:</b>	None known.

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**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. Inhalation of particles of free silica in the respirable range can give rise to fibrosis of the lungs (commonly referred to as silicosis).
<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.
<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.

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**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.

**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

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**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.**

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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 filling of tie-holes in reinforced concrete elements.

**COMPILED BY:** C.G. Lloyd, Director

**DATA SOURCES:** EH40/2005 Occupational Exposure Limits 2005 (with revisions 2007).  
HSE Guidance Note EH44; Dust in the Workplace: General Principles of Protection.  
Control of Substances Hazardous to Health Regulations 2002.

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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.**