




# CONCRETE CANVAS

## MSDS



RAIL



ROAD



MINING



PETROCHEM



AGRO



UTILITIES



MUNICIPAL



DEFENCE



DESIGN



2014 Fast Track 100  
16th fastest growing  
company in the UK.



2014 Queen's Award  
for Enterprise in  
Innovation



2013 MacRobert Award  
Finalist



2013 Innovation Award Winner  
Railtex Exhibition



2012 R&D 100 Award winner  
R&D Magazine



2011 Expert's Choice Winner  
Most Innovative Product



2011 Brit Insurance  
Designs of the Year Nominee



Material ConneXion®  
MEDIUM AWARD  
MATERIAL OF THE YEAR 2009  
2009 Winner  
Material ConneXion Medium Award  
Material of the Year



2007 Winner  
D&AD Yellow Pencil Award  
Product Design

## Section 1: Product and Company Identification

### 1.1 Product Name

Concrete Canvas® GCCM (CC5™, CC8™ and CC13™)  
(Geosynthetic Cementitious Composite Mat)

### 1.2 Description

A flexible mat containing a dry concrete mix trapped within a 3-dimensional fibre matrix with a fibrous surface on one side and a PVC membrane on the other. When water is added, the material remains workable for 2 hours and then hardens to form a concrete sheet. The material is supplied on a roll and comes in a range of thicknesses up to 13mm.

### 1.3 Supplier/Manufacturer

**Concrete Canvas Ltd.**  
Block A22  
Severn Road  
Treforest Industrial Estate  
Pontypridd  
CF37 5SP, United Kingdom

### 1.4 Contact

Telephone (UK): 0345 680 1908  
E-mail: [info@concretecanvas.com](mailto:info@concretecanvas.com)  
Website: [www.concretecanvas.com](http://www.concretecanvas.com)

## Section 2: Hazards Identification

### 2.1 Classification of the substance or mixture

**In compliance with EC regulation No. 1272/2008 and its amendments.** This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site. This substance does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8). This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

**In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.** This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site. This substance does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8). This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

### 2.2 Label Elements

**In compliance with EC regulation No. 1272/2008 and its amendments.** No labelling requirements for this substance.

**In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.** No labelling requirements for this substance.

### 2.3 Other Hazards

**In compliance with EC regulation No. 1272/2008 and its amendments.** No labelling requirements for this substance.

**In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.** No labelling requirements for this substance.

## Section 3: Composition/Information on ingredients

### 3.1 Chemical description

Substance obtained from calcium aluminate clinker. The major chemical elements are AL<sub>2</sub>O<sub>3</sub>, CaO, SiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub> appearing predominantly in the following mineralogical compounds:

|                          | CAS Number | % Composition | Classification/<br>Symbol |
|--------------------------|------------|---------------|---------------------------|
| Calcium Aluminate Cement | 65997-16-2 | 70-100%       | None                      |

## Section 4: First Aid Measures

### 4.1 First Aid Measures in the Even of Exposure

#### Inhalation:

In case of exposure to high concentrations of dust : move the affected person away from the contaminated area and into the fresh air.

#### Eye Contact

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open. If there is any redness, pain or visual impairment, consult an ophthalmologist.

#### Skin Contact

Watch out for any remaining product between skin and clothing, watches, shoes, etc. Wash with soap.

#### Ingestion

Seek medical attention, showing the label.

### 4.2 Most Important Symptoms

No data available.

### 4.3 Immediate or Special Treatment Needed

No data available.

## Section 5: Fire Fighting Measures

### 5.1 Extinguishing Media

Non flammable

### 5.2 Special Hazards

Do not breathe in smoke.

### 5.2 Advice for Firefighters

No data available.

## Section 6: Accidental Release Measures

### 6.1 Environmental Precautions

Avoid emission of dust.

### 6.2 Cleaning Up

Avoid contamination of water ways and cultivated areas. Confine spill and sweep up or vacuum to avoid generating excessive dust. Dispose of by landfill in accordance with local regulations.



## Section 7: Handling and Storage

### 7.1 Technical Measures and Precautions

Handle in well ventilated areas using methods that minimize dust.

### 7.2 Handling

No particular precautions.

### 7.3 Incompatible Products

Contact with water or water vapour during storage will hydrate the product and affects its performance.

### 7.4 Packaging Materials

No special restrictions with respect to safety.

## Section 8: Exposure Controls/Personal Protection

### 8.1 Engineering Measures

Where reasonably practical, dust exposures should be controlled by engineering methods.

### 8.2 Control Parameters

The following occupational exposure limits defined for non-specified nuisance dust are applicable.

|                 | OSHA PEL            | ACGIH PEL           |
|-----------------|---------------------|---------------------|
| Total Dust      | 15mg/m <sup>3</sup> | 10mg/m <sup>3</sup> |
| Respirable dust | 5mg/m <sup>3</sup>  | 5mg/m <sup>3</sup>  |

### 8.3 Personal Protective Equipment

- a) **General Protection** - Protective clothing is recommended including waterproof gloves and boots.
- b) **Respiratory protection** - NIOSH approved respiratory protection should be worn when the conditions are such that personal exposure is estimated to approach or exceed the stated limits.
- c) **Eye protection** - ANSI approved glasses or goggles should be worn whenever there is a risk of powder or wet mixture entering the eyes.
- d) **Hand and skin protection** – Work wear that prevents any powder or powder / water mixture contacting the skin.
- e) **Environmental Exposure Controls** – Avoid contamination of waterways and cultivated areas.

## Section 9: Physical and Chemical Properties

|                      |   |                        |
|----------------------|---|------------------------|
| Physical state       | : | cloth/ particulate     |
| Odour                | : | none                   |
| pH                   | : | 11-11.5 when wet       |
| Boiling Point        | : | not applicable         |
| Melting Point        | : | not applicable         |
| Flash Point          | : | not applicable         |
| Flammability Limits  | : | not applicable         |
| Oxidising Properties | : | not applicable         |
| Vapour Pressure      | : | not applicable         |
| Bulk Density         | : | 1500 kg/m <sup>3</sup> |
| Specific Gravity     | : | not applicable         |
| Solubility (Water)   | : | not applicable         |
| Solubility (Other)   | : | not applicable         |

|                       |   |                |
|-----------------------|---|----------------|
| Partition Coefficient | : | not applicable |
| Viscosity             | : | not applicable |
| Vapour Density        | : | not applicable |
| Evaporate Rate        | : | not applicable |

## Section 10: Stability and Reactivity

### 10.1 Reactivity

In the presence of water, calcium aluminates react chemically and harden to form stable calcium aluminate hydrates. This reaction is exo-thermal and may last up to 24 hours. The total heat released is <500 kJ/kg.

### 10.2 Chemical Stability

This substance is stable under the recommended handling and storage conditions in section 7.

### 10.3 Possibility of hazardous reactions

None under normal conditions.

### 10.4 Conditions to avoid

Formation of dusts, humidity.

### 10.5 Incompatible materials

None, to our knowledge.

### 10.6 Hazardous decomposition products

None, to our knowledge.

## 11: Toxicological Data

### Acute toxicity

None.

### Local effects

May cause local irritation to eye, throat or skin, but is not classified as irritant according to EEC legislation.

### Sensitization and chronic toxicity

Does not contain amounts of soluble Chromium (VI).

## Section 12: Ecological Information

### Possible environmental effects

After hydration (a few hours or days in moist conditions) the product is stable in soil and in water, with negligible mobility of its constituents.

## Section 13. Disposal Considerations

Dispose of this material to a landfill site in accordance with local authority requirements.

The condition or methods for handling, stocking, using or eliminating this product are beyond the control of CONCRETE CANVAS LTD. CONCRETE CANVAS LTD shall therefore not be held liable in case of loss, damage or any expense incurred related to the handling, the stocking, the use or the elimination of this product howsoever.

## Section 14. Transport Information

Exempt from transport classification and labelling.

## Section 15: Regulatory Information

### 15.1 Specific Regulations/Legislation For The Substance or Mixture

#### Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- Regulation EC 1272/2008 modified by regulation EC 618/2012
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.

#### Container information:

No data available.

#### Particular provisions :

USA : CERCLA Hazardous substance (40CFR Part 302) : all substances are not listed in the CERCLA list USA State of California : All substances are not listed in the Proposition 65 list  
US Toxic Substances Control Act TSCA : All substances are listed in the EPA (Environment Protection Agency) TSCA inventory USA SARA section 311/312 categorizations : None  
Canada : Domestic Substance List (DSL) : all substances are registered in the DSL inventory WHMIS : none

#### German regulations concerning the classification of hazards for water (WGK) :

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly hazardous for water.

#### Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=0 Inflammability=0 Instability/Reactivity=0  
Specific Risk=none

### 15.2 Chemical Safety Assessment

No data available.

## Section 16: Other Information

All information provided is based on Concrete Canvas Ltd's current knowledge and experience of the products and are deemed to be accurate. However, Concrete Canvas Ltd. undertakes no liability or responsibility of any kind in respect thereof. The conditions or methods for handling, stocking, using or eliminating this product are beyond the control of Concrete Canvas Ltd. Concrete Canvas Ltd. shall therefore not be held liable in case of loss, damage or any expense incurred related to the handling, the stocking, the use or the elimination of this product howsoever. This document should be used for Concrete Canvas® GCCM only.

*This safety data sheet has been drafted in accordance with the rules and recommendations of Reach regulation 1907/2006/EC*