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SECTION 1: IDENTIFICATION

Product Identifier:

CCX-UTILITY™ (CCX-U™) and CCX-MAT™ (CCX-M™) GCCM (Geosynthetic Cementitious Composite Mat)
CCX-BARRIER™ (CCX-B™) GCCB (Geosynthetic Cementitious Composite Barrier)

Recommended Use:

CCX-U™ and CCX-M™ GCCM:
For rapidly applied, durable erosion control applications i.e. water channel lining, slope protection, bund lining, weed suppression, culvert repair.

CCX-B™ GCCB:
For containment critical durable erosion control applications i.e. water channel lining, lagoon lining, canal remediation, secondary containment bund and berm lining.

Supplier Identifier:

Manufacturer:
Concrete Canvas Ltd. Cowbridge Road, Talbot Green, Pontyclun, CF72 8HL, United Kingdom
E-mail: info@concretecanvas.com | Website: www.concretecanvas.com

Manufacturer's Emergency Telephone Number
Telephone (UK): +44 (0) 345 680 1908 (1) Only available during the following office hours: 08:00 – 16:30

Supplier:
Concrete Canvas USA inc. 1350 NASA Rd 1, Suite 120, Houston, TX 77058
Email: info@concretecanvas.com | Website: www.concretecanvas.us

Supplier's Emergency Telephone Number
832 846 2946

SECTION 2: HAZARD(S) IDENTIFICATION

Classification:
This mixture does not present physical, health or environmental hazards. Refer to the recommendations regarding the other products present on the site.

We provide this product information on the basis of our current knowledge and experience and can neither give any warranty nor assume any responsibility for factors outside our control or knowledge.
Classification (EC 1272/2008)

Hazard class	Hazard category	Hazard Statement
Skin irritation	2	H315: Cause skin irritation
Serious eye damage/eye irritation	1	H318: Causes serious eye damage
Skin sensitisation	1B	H317: May cause an allergic skin reaction
Respiratory irritation	STOT SE 3	H335: May cause respiratory irritation

Human Health

A small amount of powder mix and/or dust may be released during normal handling (i.e. manipulating sections of un-set GCCM/GCCB or when cutting unset or hydrated GCCM/GCCB) – skin, eye and respiratory protection is advised if dust is generated.

When mixed with water or liquid splashes – may cause eye damage.

Contains a low level of soluble Chromium VI. A reducing agent has been added which will, when mixed, reduce the level of soluble Chromium (VI) to no more than 0.0002% (2ppm) of the total dry weight of cement providing the product is stored correctly as indicated in section 7, and used within the recommended shelf life for the product. Persons with a known sensitivity to Chromium VI would be advised not to use this product.

*Geosynthetic Cementitious Composite Mat & Geosynthetic Cementitious Composite Barrier

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Environmental

The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

Label Elements

According to Regulation (EC) No 1272/2008 (CLP)

Signal word	Danger
Hazard statements	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation.
Precautionary statements	P102 Keep out of reach of children. P264 Wash contaminated skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P313 Get medical advice/ attention. P501 Dispose of contents/ container in accordance with national regulations.
Contains	Cement

Other Hazards:
This product does not contain any substances classified as PBT or VPvB.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

CCX-U™, CCX-M™ GCCMs and CCX-B™ GCCB are composed of a cementitious powder, polyester & polypropylene fibres and LLDPE membrane (CCX-M™ and CCX-B™).

We provide this product information on the basis of our current knowledge and experience and can neither give any warranty nor assume any responsibility for factors outside our control or knowledge.

Name	Identifier number (CAS)	Weight % content (or range)	Classification:
Portland cement	65997-15-1	50-99%	Skin Irrit. 2 – H315 Eye Dam. 1 – H318 Skin Sens. 1 – H317 STOT SE 3 – H335
Silica sand, quartz	14808-60-7	1-49%	Carc. 1A, H350 STOT SE 3,H335 STOT RE 1, H372

Concentrations shown as range are to protect confidentiality.

There are no additional ingredients present within the product, which, within our current knowledge, are classified as hazardous to health or the environment.

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SECTION 4: FIRST-AID MEASURES

General Notes:
Remove affected person from source of contamination. As a general rule, in case of doubt or if symptoms persist, always call a doctor. NEVER induce swallowing by an unconscious person.

Following Inhalation:
Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Following skin contact:
Watch out for any remaining product between skin and clothing, watches, shoes, etc. Wash with soap/cleanser and rinse with plenty of water.

Following 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.

Following ingestion:
DO NOT induce vomiting. Wash mouth with water and give plenty of clean water. Seek medical attention, showing this SDS.

Self-protection of the first aider:
First aider must follow general rules to avoid direct contact with any spillage powder and fibres. General PPE is suitable.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media:

Suitable extinguishing media – water, foam, carbon dioxide or dry powder.

5.2. Specific Hazards Arising from the product:

The product has a limited combustibility in either packaged or installed (hydrated) form. However, some materials may burn (i.e. packaging or exposed fabric and membrane). Under fire conditions, fumes can contain carbon monoxide (CO), carbon dioxide (CO_2), water vapour.

5.3. Advice for firefighters:

In case of fire: do not breathe decomposition products and fumes. Use approved self-contained breathing apparatus. Wear fire retardant clothing. Prevent runoff from fire control from entering waterways. Large fires should only be dealt with by trained personnel.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures.

There is possibility that some cementitious blend in the form of dust and powder, fibres and pieces of membrane may be released locally in the case of accident.

6.1.1. For non-emergency personnel
Use suitable personal protective equipment (refer Section 8 for details).

6.2. Environmental precautions

Prevent release of large quantities of materials to drains and waterways.
Provide adequate ventilation during heat welding.

6.3. Methods and material for containment and cleaning up

Retrieve material by mechanical means (sweeping, vacuuming). Avoid emission of dust. If any spilled material has been wetted: collect it before it begins to harden.

6.4. Reference to other sections

Refer to section 8 for more information about personal protective equipment and to section 13 for disposal guidelines.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid handling that may lead to dust formation. Do not eat, drink or smoke when using the product.

Protective measures:
Incompatible materials
Contact with water or water vapour during storage will hydrate the product and affects its performance.

Fire preventions:
Prevent access by unauthorised personnel.

Aerosol and dust generation preventions:
Avoid generation of dust.

Environmental precautions:
Avoid any accidental damage to GCCM/GCCB and release of powder or other parts of it to drains and waterways.

Advice on general occupational hygiene:

7.1.1. Don't eat, drink and smoke in storage or working area.
7.1.2. Wash hands after use.
7.1.3. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:
CC should be stored under cover in dry conditions.

Packaging materials:
There is no special packaging restriction with respect to safety but it's advised to store product within the manufacturers sealed packaging.

7.3. Specific end use(s)

7.3.1. CCX-U™ and CCX-M™ Applications:

- Channel Lining
- Slope Protection
- Bund Lining
- Remediation
- Culvert Lining
- Weed Suppression
- Other

7.3.2. CCX-B™ Applications:

- Channel Lining
- Lagoon Lining
- Berm Lining
- Other

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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters:

8.1.1. Occupational exposure limits:

Silica Sand (quartz)

In the supplied form products contain negligible quantities of respirable silica dust.

ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values): Respirable dust TWA =0.025 mg/m^3.

UK / WEL (Workplace exposure limits, EH40/2005, 2007): Respirable fraction TWA=0.1mg/m^3.

In all circumstances where there is a risk of exposure to dangerous concentrations of dust, such exposure must be reduced to as low a level as reasonably practicable by the application of occupational hygiene principles.

Portland Cement

UK / WEL (Workplace exposure limits, EH40/2005, 2007):
Total Dust TWA=10mg/m^3
Respirable dust TWA=4mg/m^3

USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits):
Respirable particles: TWA=5mg/m^3.
Total particles: TWA=15mg/m^3.

ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):
Respirable particles TWA =3 mg/m^3.
Total particles TWA=10mg/m^3.

Ingredient comments The product may contain a low level of respirable crystalline silica (WEL 0.1 mg/m^3; 8 hours TWA)

8.2. Exposure controls

8.2.1. Appropriate engineering controls

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

8.2.2. Individual protection measures

a) Personal protection measures, such as personal protective equipment
Use personal protective equipment that is clean and has been properly maintained.
Store personal protective equipment in a clean place, away from the work area.
Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

b) Eye / face protection.
Avoid contact with eyes.
Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

c) Hand protection
Wear suitable protective gloves in the event of prolonged or repeated skin contact.

d) Body protection
Work clothing worn by personnel shall be laundered regularly.
After contact with the product, all parts of the body that have been soiled must be washed.

e) Respiratory protection
Avoid breathing dust.
Type of FFP mask:
Wear a disposable half-mask dust filter in accordance with standard EN149.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance		:	cloth/ particulate
Odor		:	not applicable
pH		:	>12.0 during and shortly after hydration
Melting Point		:	not applicable
Initial Boiling Point		:	not applicable
Flash Point		:	not applicable
Evaporation rate		:	not applicable
Flammability		:	partially combustible, doesn't support fire
Explosive limits		:	not applicable
Vapour Pressure		:	not applicable
Vapour density		:	not applicable
Bulk Density		:	1400 kg/m^3
Specific Gravity		:	not applicable
Solubility	**Water**	:	not applicable
	Other	:	not applicable
Partition Coefficient		:	not applicable
Auto-ignition temperature		:	not applicable
Decomposition temperature		:	>200°C
Viscosity		:	not applicable
Oxidising Properties		:	not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity
There are no known reactivity hazards.

Chemical stability
Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions
None under normal conditions.

Conditions to avoid
Avoid handling that could lead to formation of dust. Avoid moisture.

Incompatible materials
None, to our knowledge.

Hazardous decomposition products
Does not decompose when used for intended uses.

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxilogical Data:

Acute toxicity:
No specific test data available.

Skin corrosion/skin irritation:
Irritating to skin. Cement in contact with wet skin may cause irritation. Prolonged contact may cause burns.

Serious damage to eyes/eye irritation:
Dust may cause irritation due to the presence of a foreign body. Direct contact by larger amounts of dry cement mix or splashes of wet mix may cause effects ranging from moderate eye irritation to chemical burns and blindness.

Skin sensitisation:
Irritating to skin after prolonged exposure or by an immunological reaction to soluble Cr (VI). Sensitisation effect is normally expected during period of effectiveness of the chromate reducing agent.

Respiratory sensitisation:
Cement dust may irritate the throat and respiratory tract.

Specific target organ systemic toxicity - single exposure:

STOT – single exposure:
A single exposure may cause the following adverse effects: asthma, pulmonary sensitisation.

Target Organs:
Respiratory system, lungs.

Specific target organ systemic toxicity - repeated exposure:

STOT – single exposure:
Not classified as specific target organ toxicant after repeated exposure.

General information:
Contains chromium (VI). May produce allergic reaction.

Inhalation
May contain small percentage of respirable crystalline silica. Prolonged exposure to dust may result in long term irreversible effects.

Ingestion
Ingestion of small amounts is not likely to cause any significant reaction. In larger amounts it may cause irritation to gastro intestinal tract.

Skin contact
Prolonged or repeated contact with the powder or mixtures with water may cause burns and/or irritant contact dermatitis.

Eye Contact
Risk of serious damage to eyes.

Acute and chronic health hazards
Irritating to eyes. May cause skin sensitisation or allergic reaction in sensitive individuals.

Route of entry
Skin and/or eye contact.

Target organs
Eyes, Skin,

Medical symptoms
Irritation of eyes and mucous membranes. Allergic rash.

Medical considerations
Pre-existing eye problems. Skin disorders and allergies.

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SECTION 12: ECOLOGICAL INFORMATION

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. The product may affect the acidity (pH) of water during the curing period which may have hazardous effects on aquatic organisms. The effect will be dependent on the water volume.

Ecotoxicity:	Not classified
Persistence and degradability:	After hydration, product is a solid and is immobile
Bioaccumulative potential:	No data available
Mobility in soil:	No data available
Results of PBT and vPvB assessment:	No data available
Other adverse effects:	No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.
Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.
Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Packaging:

Dispose of as unused product in accordance with local and national regulations.

SECTION 14: TRANSPORT INFORMATION

ADR/RID:	Not Classified as hazardous for transport
IMDG:	Not Classified as hazardous for transport
TDG:	Not Classified as hazardous for transport
ICAO/IATA:	Not Classified as hazardous for transport

SECTION 15: REGULATORY INFORMATION

Canadian Information:

Canada inventory (DSL/NDSL):	All ingredients are listed in DSL inventory.
NPRI:	Not available
CEPA Toxic substances:	Not available

US Information:

United States Inventory (TSCA):	Some, or all ingredients are listed.

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SECTION 16: OTHER INFORMATION

General information

Technical Data Sheet

Key literature references and source for data:

OSHA, 29 CFR 1910.1200

United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), third revised edition, United Nations, 2009

Revision History:

Revision Number:	1
Date of Last Revision:	December 21, 2022
SDS Generated by:	Marcin A. Kujawski, Quality and Materials Research Manager

Hazard statements in full:

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

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This document should be used for CCX-UTILITY™ (CCX-U™), CCX-MAT™ (CCX-M™) GCCMs and CCX-BARRIER™ (CCX-B™) GCCBs only.

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