

TIER[®] *Masonry Adhesive*

Material Safety Data Sheet

1. Identification of Substance / Preparation and Company

Product Name: TIER[®] Masonry Installation System (MIS)
 1.2 Applications: Adhesive for fixing external masonry stone cladding.
 1.3 Supplier: Trenao Limited, 483 Green Lanes, London, N13 4BS
 T: 0845 5442325 F: 0845 5442326 E: info@trenao.com

2. Hazards Identification

2.1 Classification:

(1999/45/EEC) Xi – IRRITANT
 Risk phrases: R41; Risk of serious damage to eyes
 R37/38 – Irritating to respiratory system and skin



Safety phrases: S2 Keep out of the reach of children. Avoid breathing dust.
 S24/25 Avoid eye and skin contact
 S36/37/39 Wear suitable eye protection, waterproof clothing, waterproof footwear and waterproof gloves. Clothing contaminated by wet cement should be removed immediately and washed before reuse. On contact with eyes or skin, rinse immediately with plenty of clean water. Seek medical advice after eye contact.

Classification : (EC 1272/2008) Eye Dam. 1; H318 – Skin Irritant. 2; H315 – STOT SE 3; H335

2.2 Label elements:

Key Word: DANGER



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

Precautionary statements: P102 Keep out of reach of children.
 P260a Do not breathe dust.
 P280f Wear protective gloves, eye and face protection.
 P305/351/338 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.
 P501a Dispose of contents/container in accordance with local regulations.

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Supplementary precautionary statements:

P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing should not be allowed out of the work-place.
 P264 Wash contaminated skin thoroughly after handling.
 P321 Specific treatment (see medical advice on this label).
 P302+352 IF ON SKIN: Wash with plenty of soap and water.
 P304+340 IF INHALED: Remove victim to fresh air a position comfortable for breathing.
 P333+313 If skin irritation or rash occurs: Get medical advice/attention.
 P362 Take off contaminated clothing and wash before reuse.
 P403+233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.

2.3 Other hazards:

Contact with wet cement, wet concrete or wet mortar may cause irritation, dermatitis or burns.

Contact between cement powder and body fluids (e.g. sweat and eye fluid) may also cause skin and respiratory irritation, dermatitis or burns.

Contains: Calcium oxide. When mixed with water it will form calcium hydroxide which has a corrosive effect on skin and eyes. Allergic contact dermatitis is caused mainly by the sensitivity to chromium VI salts in product which is mixed and used beyond its' declared shelf life – see pack.

3. Composition / Information on Ingredients

3.1 Substances:

3.2 Mixtures:

A blend of cements; inert fillers; lightweight aggregates and polymeric additives

Name	CAS No.	Concentration	Classification (EC 1272/2008)
Silica Sand	80878-86-0 2-3	40.0 – 60.0 %w/w	
Portland Cement	65997-15-1	30.0 – 50.0 %w/w	H335; H315; H318; H317
Calcuim Formate	544-17-2	< 5.0% w/w	H318

4.0 First Aid Measures

4.1 Description:

Eye Contact:

Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any cont

Inhalation:

Remove affected person to fresh air. If nose or airways become inflamed or breathing difficulties

Skin Contact:

Remove contaminated clothing immediately and wash skin with soap and water. In case of rashes, wounds or other skin disorders: Seek medical attention.

Ingestion:

Clean out mouth with copious volumes of water and drink plenty. Do not induce vomiting. Seek medical attention if mouth is inflamed.

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4.2 Acute & Chronic Symptoms

Inhalation:	Frequent inhalation of large quantities of cement dust over a long period of time increases the risk of developing lung diseases. Dust may irritate throat and respiratory system and cause coughing. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Ingestion:	May cause chemical burns in mouth and throat. Small amounts due to normal handling will have little or no effect. Possible alkali burns around mouth if not attended to immediately.
Skin Contact:	Cement may have an irritating effect on moist skin (due to transpiration or humidity) after prolonged contact. Prolonged skin contact with wet cement or fresh concrete may cause serious burns because they develop without pain being felt (for example when kneeling in fresh concrete even when wearing trousers). Repeated skin contact with wet cement may cause contact dermatitis.
Eye Contact:	Eye contact with cement (dry or wet) may cause serious and potentially irreversible injuries.
Immediate Medical Attention:	See First Aid measures above

5.0 Fire Fighting Measures

5.1 Extinguishing media

All cement based adhesives are non-flammable, although paper sacks may well smoulder & combust. Use extinguisher appropriate to the surrounding materials & fire.

5.2 Combustion Hazards

Oxides of carbon and paper ash. During fire, toxic gases (CO, CO₂) are formed.

5.3 Advice for Fire Fighters

Wear self-contained breathing apparatus with full face piece and protective clothing

6.0 Accidental Release Measures

6.1 Personal protection

Avoid inhalation of dust. Avoid contact with eyes and prolonged skin contact. Use work methods which minimise dust production.

6.2 Enviro. Precautions

Contain spillage within a defined area and avoid discharge to watercourses and drains.

6.3 Spill Removal Methods

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6.3 Spill Removal Methods

Ideally use an industrial vacuum cleaner and only brush residues when sprinkled with a dampened absorbent (sawdust or granules) into sealable containers when wearing personal protective equipment and ensuring adequate ventilation is available

6.4 Reference to other sections

Before attempting any clean-up operation, consult the requirements for protective equipment shown in section 8 of this document.

7.0 Handling & Storage

7.1 Safe Handling Precautions

Lifting operations of no more than 1 x 20kg sack at a time by a competent operator wearing.

7.2 Safe Storage Conditions

Store in sealed, clearly marked sacks. Keep out of reach of children in a cool well-ventilated environment, preferably off the ground and out of contact with water. This product must be stored in unopened bags in cool dry conditions and protected from excessive draught. Protect containers against physical damage and check regularly for leaks. Observe manufacturers storing and handling recommendations.

7.3 Incompatible Materials

Avoid exposure to moisture when in storage prior to use.

7.4 Specific End Users

Blends based on white Portland cement do not contain reducing agents as the chromium VI content is already below 2ppm

8.0 Exposure Controls & Personal Protection

8.1 Control Parameters

Substance	8 Hour Exposure	Type	Source
Portland Cement Dust (Respirable)	4mg/M3	TWA	EH40
Portland Cement Dust (Inhalable)	10mg/M3	TWA	EH40
Calcuim Formate			

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8.2 Exposure Controls

Engineering Controls:	Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation of dust by using contained ventilation where practical.
Respiratory Protections:	During dust-raising work: Use respiratory equipment with particle filter, type P2. Or wear a BS rated disposable dust mask for each daily task.
Hand Protection:	Wear heavy duty natural rubber gloves or gauntlets approved to EN 374 & EN 420 with a BTT rating of > 8 hrs for strong alkalis.
Eye Protection:	Dust proof BS 2092 Goggles or chemical grade visors are also advised wherever there is a risk of dust or paste entering the eyes.
Other Protection:	PVC overalls with elasticated cuffs and closed neck should be worn and laundered immediately after use. Do not work in powder or paste contaminated overalls. skin care products (including barrier creams) to protect the skin from prolonged contact with wet cement. Particular care should be taken to ensure that wet cement does not enter the boots. In some circumstances such as when laying concrete or screed, waterproof trousers or Knee-pads are necessary.
Hygiene Measures:	Contact with skin must be washed off immediately

9.0 Physical & Chemical Properties

Appearance:	Grey Powder	Relative Density:	1.45 Kg/litre when mixed
Odour:	Negligible	Water Solubility:	Slight
Odour Theshold:	n/a	Solubility in Oils:	n/a
pH:	12.0 – 13.0 (mixed)	Partition Coefficient: (K_{ow})	n/a
Flash Point:	n/a	Auto-ignition Temp:	n/a
Melting Point:	n/a	Decomposition Temp:	n/a
Boiling Point:	n/a	Surface Tension:	n/a
Evaporation Rate:	n/a	Viscosity:	8000 – 15000 Mpa.s mixed
Upper/Lower Flam Limits:	n/a	Explosive Properties:	n/a
Vapour Preasure:	n/a	Oxidising Properties:	n/a
Vapour Density:	n/a	Particle Size:	Less than 1mm

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10.0 Stability & Reaction

10.1 Conditions to Avoid: Humidity & moisture during storage

10.2 Incompatible Materials: Not Known

10.3 Decomposition Hazards Stable

10.4 Reactivity: Stable

10.5 Chemical Reactivity: Aqueous media

10.6 Risk of hazardous Reaction: Not Known

11.0 Toxicological Information

11.1 Information on toxicological Information

	This product has not been exhaustively tested. Judgements on the expected toxicity of this product have been made based upon consideration of its' major components.
Routes of Exposure:	Inhalation, ingestion & contact with skin & eyes all have the potential for adverse effects on human organs when subject to acute and chronic levels of exposure. Chronic exposure to respirable dust in excess of occupational exposure limits may cause coughing, shortness of breath and may cause chronic obstructive lung disease (COPD).
Eye Damage / Irritation:	Direct contact with dry cement may cause corneal damage by mechanical stress, i or delayed irritation. Direct contact by larger amounts of dry cement or splashes of wet cement may cause effects ranging from moderate eye irritation to chemical burns and blindness.
Skin Corrosivity / Irritation:	Some individuals may exhibit eczema upon exposure to wet cement, caused either by the high pH which induces irritant contact dermatitis, or by an immunological reaction to soluble Cr (VI) which elicits allergic contact dermatitis [Reference (4)]. As this product contains a soluble Cr (VI) reducing agent and as long as the mentioned period of effectiveness of the chromate reduction is not exceeded, a sensitising effect is unlikely.
Other Protection:	PVC overalls with elasticated cuffs and closed neck should be worn and laundered immediately after use. Do not work in powder or paste contaminated overalls. skin care products (including barrier creams) to protect the skin from prolonged contact with wet cement. Particular care should be taken to ensure that wet cement does not enter the boots. In some circumstances such as when laying concrete or screed, waterproof trousers or Knee-pads are necessary.
Respiratory / Skin Sensitisation:	Dry cement in contact with wet skin or exposure to moist or wet cement may cause thickening, cracking or fissuring of the skin. Prolonged contact in combination with abrasion can cause severe burns.

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12.0 Ecological Information

12.1 Ecotoxicity:

The product is not expected to be hazardous to the environment.

12.2 Bio-accumulative potential:

Not relevant

12.3 Persistence & Degradability:

After hardening, cement presents no toxicity risks.

12.4 Mobility in Soil:

Negilable

12.5 PBT and vPvB Result:

Not Relevant

12.6 Other Adverse Effects:

Avoid contamination of watercourses as risks increasing alkalinity

13.0 Disposal Considerations

13.1 Waste Treatment Methods:

To be disposed in accordance with local authority regulations for builders waste. Allow to harden, avoid entry in sewage and drainage systems or into bodies of water (e.g. streams) and dispose of according to the local legislation. Avoid entry into the sewage water system. Dispose of the hardened product as concrete waste. Due to the inertisation, concrete waste is not classed as a dangerous waste. Product that contains >2ppm CrVI should be disposed of according to local legislation or should be treated with a reducing agent before use. Product that is within shelf life may be hydrated with water and disposed of according to local legislation. The hydrated product is not hazardous.

14.0 Transport Information

14.1 Transport Labels:

Cement based dry-pack mortars of this type are not covered by the international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID) and therefore no classification is required.

Regulatory Code (Land, Sea & Air): ADR - IMDG - ICAO

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15.1 Regulatory Information

- 15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture
All components are listed as existing substances in Europe

UK Regulatory References:

Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments. Chemicals (Hazard Information & Packaging) Regulations. Environmental Listing - Control of Pollution Act 1974. Control of Pollution (Special Waste Regulations) Act 1980.

Statutory Instruments:

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes:

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG(108).

EU Legislation

Dangerous Substance Directive 67/548/EEC.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

National Regulations:

Users of this product are reminded of their duties under the current Control of Substances Hazardous to Health Regulations and a suitable and sufficient assessment of all the risk should be undertaken before using this product. The guidelines given in the HSE publication COSHH ESSENTIALS - Easy Steps To Control Chemicals gives sound advice for deciding safe working control measures.

Authorisations (Title VII Regulation 1907/2006) - No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006) - No specific restrictions of use are noted for this product.

- 15.2 **Chemical safety assessment**

A chemical safety assessment has not been carried out for this product

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16.0 Other Information

Last Revision Date:	19-11-2014
SDS No.	T255
16.1 List of abbreviations used in this SDS:	
CAS:	Chemical abstracts service
CLP:	Classification, labelling & packaging regulation (EC) No. 1272/2008
DSD:	Dangerous substances Directive 67/548/EEC
DPD:	Dangerous Products Directive 1999/45/EC
PBT:	Persistent, Bio-accumulative & Toxic
REACH:	Registration, Evaluation, Authorisation & Restriction of Chemicals Regulation (EC) 1907/2006
vPvB	Very Persistent, very Bio-accumulative
References:	Volume VII Approved supply list; EH40; Croner; Bulk supplier data sheets
16.2 Classification Methods:	R37/38 Irritating to respiratory system and skin. R43 May cause sensitisation by skin contact. R41 Risk of serious damage to eyes.
R phrases in Section 3:	
H Phrases in section 3:	H318 Causes serious eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.
16.3 Training for Workers:	
Disclaimer:	The information supplied in this safety data sheet is intended to assist in the use of the above product without risk to safety and health and is based on current knowledge and experience of the associated physico-chemical hazards. The data does not signify any warranty with regard to the product's properties. This information may be used to assist in formulating a COSHH risk assessment if applied at work. This data sheet complies with EC Directive 91/155EC.