MATERIAL SAFETY DATA SHEET

VERSION 1 – DPD / 1999 / 45 / EEC

Ref: 035W – MULTI-FLEX WHITE OPC based adhesives

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY:

1.1 Product Name: **MULTI-FLEX TILE ADHESIVE based on WHITE OPC**

1.2 Applications: Fixing Ceramic Wall & Floor tiles

1.3 Supplier: Palace Chemicals Ltd; Speke Hall Industrial Estate; Speke; Liverpool; L24 4AB
Tel: 0151 486 6101; Fax 0151 448 1982
e-mail: sales@palacechemicals.co.uk; web: www.palacechemicals.co.uk

1.4 Emergency Telephone No. Tel: 0151 486 6101; Fax 0151 448 1982; e-mail:jp@palacechemicals.co.uk

2. HAZARDS IDENTIFICATION:

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


IRRITANT

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 re-use. On contact with eyes or skin, rinse immediately with plenty of clean water.
Seek medical advice after eye contact.

2.1 Classifications:
(EC) No. 1272/2008 **Eye Dam. 1; H318 – Skin Irritant. 2;H315 – STOT SE 3;H335**
Hazard phrases: H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Signal word: **DANGER**
Precautionary phrases:
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.

2.2 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..

3. COMPOSITION / INFORMATION ON INGREDIENTS:

3.1 Substances: N/A
3.2 Mixtures: Blends of cements; hydraulic binders; polymeric additives and graded silica sands

Name:	CAS No.:	EINECS:	Concentration:	Classification:
Portland Cement 67/548 (EEC)	65997-15-1	266-043-4	30.0 – 60.0% w/w	R37/38; R41; R43
Portland Cement GHS/CLP	65997-15-1	266-043-4	30.0 – 60.0% w/w	STOT SE 3;H335; Skin Irrit. 2;H315 H317 Skin sens Cat 1; Eye Dam. 1;H318

4. FIRST AID MEASURES:

4.1 Description of measures:

EYE CONTACT: Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids. If irritation persists: Continue flushing during transport to hospital.

INHALATION: Remove affected person to fresh air. If nose or airways become inflamed or breathing difficulties occur and irritation persists seek medical attention.

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.

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: Unlikely route of entry

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.

4.3 Immediate medical attention: See First Aid measures above

5. 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.

5.3 Advice for fire-fighters: None applicable

6. 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 Environmental precautions: Contain spillage within a defined area and avoid discharge to watercourses and drains

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

7. 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 (a) 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.

7.2 (b) Incompatible materials: Avoid exposure to moisture when in storage prior to use

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

8. EXPOSURE CONTROLS & PERSONAL PROTECTION:

8.1 Control parameters

Substance:	8 hour exposure limit	Type:	Source:
Portland Cement dust: Respirable	4mg/M3	TWA	EH40
Portland Cement dust: Inhalable	10mg/M3	TWA	EH40

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. PHYSICAL & CHEMICAL PROPERTIES:

Appearance:	Coarse off-white powder	**Dry bulk density:**	1100 g/ltr
Odour:	Negligible	**Wet Bulk Density:**	1700 g/ltr +/- 100
Odour threshold:	n/a	**Solubility in oils:**	Insoluble
pH:	>11.0 when mixed	**Water solubility:**	Insoluble
Flash point:	n/a	**Auto-ignition temperature:**	n/a
Melting point:	n/a	**Decomposition temperature:**	n/a
Boiling point:	n/a	**Surface tension:**	n/a
Evaporation rate:	n/a	**Viscosity:**	n/d
Upper/Lower Flam limits:	n/a	**Explosive properties:**	Nil
Vapour pressure:	n/a	**Oxidising properties:**	Nil
Vapour density:	n/a	**Particle size:**	50 to 1000 micron

10. STABILITY & REACTIVITY:

10.1 Conditions to avoid:	Humidity & moisture during storage	**10.4 Reactivity:**	Stable
10.2 Incompatible Materials:	Not known	**10.5 Chemical reactivity:**	Aqueous media
10.3 Decomposition hazards:	Stable	**10.6 Risk of hazardous reaction:**	Not known

11. TOXICOLOGICAL INFORMATION:

11.1 Information on toxicological effects: 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

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.

12. ECOLOGICAL INFORMATION:

12.1 Ecotoxicity:	The product is not expected to be hazardous to the environment.	**12.4 Mobility in soil:**	negligible
12.2 Bio-accumulative potential:	Not relevant	**12.5 PBT and vPvB result:**	Not relevant
12.3 Persistence & degradability:	After hardening, cement presents no toxicity risks.	**12.6 Other adverse effects:**	Avoid contamination of watercourses as risks increasing alkalinity

13. 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.

14. TRANSPORT INFORMATION:

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**
14.1 UN No.:			
14.2 Proper shipping name:			
14.3 ADR Packing Group:			
14.4 Transport Hazard Class:			
14.5 Environmental hazards.			
14.6 Special user precautions:			
14.7 Transport in bulk – IBC code:			

15. 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,

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.

16. OTHER INFORMATION:

Last revision date: 02/03/14
SDS No.: 035W

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; Supplier RM safety data sheets

Classification methods:

R phrases in Section 2:
R41; Risk of serious damage to eyes
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H phrases in section 2:
H315 Causes skin irritation.
H318 Causes serious eye damage.
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Safety phrases in section 2:
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Precautionary phrases:
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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.

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.