Revision 4

1-Identification of the Substance/Preparation and of the Company.

1.1 Product Name: Jetcem Rapid Setting Cement, Jetcem Rapid Setting Sand/Cement.

1.2 Intended Use: Rapid patching or repairing cement

1.3 Company Name:

Purimachos Limited, UNIT 12 Kingswood Douglas Industrial Estate, Douglas Road, Kingswood, Bristol BS15 8NH. Tel: 0117 9674474 Fax: 0117 9674475

2- Composition /Information on Ingredients.

The products are a basic preparation of silica sand with cement combined with various minor additives including a reducing agent included to control the level of soluble chromium (v1) to below 2ppm of the total dry weight of the cement when mixed with water.

2.1 Main Constituents:

Portland Cement. CAS N° 65997-15-1. >10% R41, R43 High Alumina Cement CAS N° 65997-16-2 Sand. CAS N° 14808-60-7

3- Hazard Identification.

Xi Irritant

Risk of serious damage to eyes.

Contact with wet cement or wet mortar may cause irritation, dermatitis or burns. Contact between cement powder and body fluids (e.g. sweat or eye fluids) may cause irritation, dermatitis or burns.

When cement is mixed with water or when cement becomes damp from contact with sweat or tears a strong alkaline solution is produced. If this comes into contact with eyes or skin it may cause serious burns and ulceration. The eyes are particularly vulnerable and damage will increase with contact time. Strong alkaline solutions in contact with the skin tend to damage the nerve endings first before damaging the skin, therefore chemical burns can develop without pain being felt.

Cement mixes may until set cause both irritant and allergic contact dermatitis. Irritant contact dermatitis is due to a combination of the wetness, alkalinity and abrasiveness of the constituent materials.

Allergic contact dermatitis is caused mainly by the sensitivity of an individuals skin to hexavalent chromium salts.

This product must be stored in unopened bags clear of the ground in cool dry conditions and protected from excessive draught. If stored correctly and used by the date shown on the front of the packaging the activity of the reducing agent added to control the level of soluble chromium (v1) will be maintained and the product will contain when mixed with water no more than 0.0002% (2ppm) soluble chromium (v1) of the total dry weight of the cement. Use of this product after the declared storage period may increase the risk of an allergic reaction.

First Aid Measures.

4.1 Eve Contact:

Wash eye immediately with plenty of clean water for at least 10 minutes and seek medical advice without delay.

4.2 Skin Contact:

Wash the affected area with soap and water. If irritation, pain or other symptoms occur seek medical advice. Clothing contaminated by wet cement should be removed and washed thoroughly before use.

4.3 Inhalation:

If irritation occurs move to fresh air. If nose or airways become inflamed seek medical advice.

4.4 Ingestion:

Do not induce vomiting, wash out mouth with water and give patient plenty of water to drink. Seek medical advice.

5- Fire Fighting Measures.

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Product is not flammable and will not facilitate combustion with other materials.

6- Accidental Release Measures.

Wear suitable protective equipment. Recover spillage in a dry condition if possible. Shovel into suitable containers for disposal or use. Minimise generation of airborne dust. The product can be slurried by the addition of water but will subsequently set as a hard material.

7- Handling and Storage.

Bags should be stacked in a safe and stable manner. Keep dust levels to a minimum. Some bags may have a small amount of cement on the outer surface. Appropriate personal protective clothing should be used whilst handling. Avoid contact with skin and eyes.

This product must be stored in unopened bags clear of the ground in cool dry conditions and protected from excessive draught. If stored correctly and used by the date shown on the front of the packaging the activity of the reducing agent added to control the level of soluble chromium (v1) will be maintained and the product will contain when mixed with water no more than 0.0002% (2ppm) soluble chromium (v1) of the total dry weight of the cement.

Use of this product after the declared storage period may increase the risk of an allergic reaction.

8- Exposure Controls/Personal Protection.

Workplace Exposure Limit (WEL) for Portland Cement

WEL 8 hour time weighted average 10mg/m⁻³ total inhalable dust.

WEL 8 hour time weighted average $4mg/m^{-3}$ respirable dust.

Workplace Exposure Limit (WEL) for Crystalline Silica (present in Sand) = $0.3 \text{mg/m}^3 8$ hour time weighted average. HSE believes it should be reasonably practicable to control crystalline silica to $0.1 \text{mg/m}^3 8$ hour time weighted average ref Chemical Hazard Alert Notice 35.

Where reasonably practicable dust exposures should be controlled by engineering methods.

8.1 Eye Protection:

Dust proof goggles should be worn when there is a chance of product or product/water mixture entering the eye.

8.2 Skin Protection:

Protective clothing must be worn that ensures the product in any form does not come into direct contact with the skin. If product enters gloves, footwear or other protective clothing, the protective clothing should immediately be removed and the skin thoroughly washed. Wash clothing before reuse.

8.3 Respiratory Protection:

Inhalation of dust should be avoided. Respiratory protection i.e. dust mask should be worn if airborne dust is present in quantities likely to exceed the OES.

8.4 Ingestion:

Avoid ingestion by taking normal hygienic precautions.

9- Physical and Chemical Properties.

Material is supplied in dry condition and is grey in colour. pH of wet cement is 12-14.

10- Stability and Reactivity.

Stable. Reacts with moisture to become alkaline.

11- Toxicological Information.

11.1 Eye contact.

Cement is a severe eye irritant. Mild exposure can cause soreness. Gross exposure or untreated mild exposure can lead to chemical burning and ulceration of the eye.

11.2 Skin contact.

Cement powder or any cement water mixture may cause irritant contact dermatitis. Allergic chromium dermatitis and/or burns.

11.3 Ingestion.

The swallowing of small amounts of cement or cement /water mixtures is unlikely to cause any significant reaction. Larger doses may result in irritation to the gastro intestine tract.

11.4 Inhalation.

Cement powder may cause inflammation of mucous membranes. Product contains crystalline silica breathing in the very fine dust can lead to silicosis.

11.5 Chronic effects:

High repeated exposure in excess of the WEL have been linked with thinitis and coughing. Skin exposure has been linked to allergic (chromium) dermatitis. Allergic dermatitis more commonly arises through contact with cement/water mixtures than dry cement.

12- Ecological Information. The LC50 aquatic toxicity rating has not been determined. The addition of cement to water will cause the pH to rise and may therefore be toxic to aquatic life in some circumstances.

13- Disposal Considerations. Empty bags or surplus cement can be disposed of at a site authorised to accept builders waste.

14- Transport Information. Not classified as hazardous for transportation purposes.

15- Regulatory Information.

Health & Safety At Work Etc act 1974. Control of Substances Hazardous to Health regulations 2002. Control of Substances Hazardous to Health amendment regulations 2004. Chemical Hazard Information & Packaging for Supply Regulations 2002 Environmental Protection Special Waste Regulations 1996.

Classification: Xi: Irritant

Risk Phrases:

Risk of serious damage to eyes. Contact with wet cement or wet mortar may cause irritation, dermatitis or burns. Contact between cement powder and body fluids (e.g. sweat or eye fluids) may cause irritation, dermatitis or burns.

Safety Phrases:

Wear suitable protective clothing, gloves and eye/face protection. In case of contact with eyes rinse immediately with plenty of clean water and seek medical advice. After contact with skin wash immediately with plenty of clean water. Keep out of the reach of children.

Storage Conditions and Soluble Chromium V1

This product must be stored in unopened bags clear of the ground in cool dry conditions and protected from excessive draught. If stored correctly and used by the date shown on the front of the packaging the activity of the reducing agent added to control the level of soluble chromium (v1) will be maintained and the product will contain when mixed with water no more than 0.0002% (2ppm) soluble chromium (v1) of the total dry weight of the cement.

Use of this product after the declared storage period may increase the risk of an allergic reaction.

16- Other Information.

16.1 List of relevant R Phrases referred to under headings Composition/Information on Ingredients and Hazard Identification.

R41 Risk of serious damage to eyes.R43 May cause sensitisation by skin contact.Contains Chromium (v1) may cause allergic reaction.Contact with wet cement or wet mortar may cause irritation, dermatitis or burns.Contact between cement powder and body fluids (e.g. sweat or eye fluids) may cause skin and respiratory irritation, dermatitis or burns.

16.2 Sources of key data used.

Material Safety Data Sheets for the Ingredients. HSE Occupational Exposure Limits EH40 HSE Construction Information Sheet N° 26 (Cement). Chemical Hazard Alert Notice 35 Respirable Crystalline Silica. HSE Construction Information Sheet N° 36 Silica.

16.3 Restrictions for use: Do not use for load bearing, heat resistant or chemical applications.

This product safety data sheet follows the requirements of 91/155/EEC as amended by directive 93/112/EC and 2001/58/EC.

The information is provided for making safety assessments and is not a sales specification or indication of suitability for a particular use.