

Material Safety Data

31/19A Issue Date 24-Sept-07

SECTION I: PRODUCT IDENTIFICATION

Product Identification: BENTONITE

Company Identification: CMS Pozament
Swains Park Industrial Estate
Overseal, Swadlincote
Derbyshire DE12 6JT
Telephone: 01283 554800

SECTION II: COMPOSITION/INFORMATION ON INGREDIENTS

Bentonite is composed of sodium montmorillonite clay with naturally occurring accessory minerals. Free crystalline silica in the form of quartz is present in an amount between 1 and 5% by weight.

SECTION III: HAZARD IDENTIFICATION

The components of the product are not listed for classification under the CHIP 2 Regulations 1994, and in the form supplied the product can be considered non-hazardous. Any dust generated during handling is also non-hazardous provided exposure is kept below Occupational Exposure Limits.

The respirable free silica component is classified as a potential hazard to health by prolonged inhalation.

Wet montmorillonite on floors presents a slipping hazard.

SECTION IV: FIRST AID MEASURES

Eye Contact: Irrigate with plenty of cold water.
Skin Contact: No measures are required.
Inhalation: Remove to fresh air.
Ingestion: No measures are required.

SECTION V: FIRE FIGHTING MEASURES

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

SECTION VI: ACCIDENTAL RELEASE MEASURES

Personal Precautions: See section VIII.
Cleaning Up: Accidental spillages should be recovered in a manner that minimises the creation of dust or slippery surfaces if wet. Vacuum cleaning or wet sweeping and the wearing of appropriate respiratory and eye protection is recommended.

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Material Safety Data

1/A Issue Date 24-Sept-07

SECTION 1: PRODUCT IDENTIFICATION

Product Identification: Portland Cements

Company Identification: CMS Pozament
Swains Park Industrial Estate
Overseal, Swadlincote
Derbyshire. DE12 6JT
Telephone: 01283 554800

SECTION II: COMPOSITION/INFORMATION ON INGREDIENTS

Portland Cements contains calcium silicates, aluminates and ferro-aluminates. Small quantities of sulphate, lime and alkalis, together with trace amounts of chromium compounds.

Hazardous ingredient – calcium hydroxide $\text{Ca}(\text{OH})_2$ generated on contact with water. Hexavalent chromium salts dissolve in water. R38, R41. See detail under sections XI and XV.

CAS No: 65991-15-1
EINECS No: 266-043-4

SECTION III: HAZARD IDENTIFICATION

Irritating to eyes and skin. Risk of serious damage to eyes. May cause burns in the presence of moisture due to generation of strong alkaline solution of calcium hydroxide. May cause allergic dermatitis due to the sensitivity of an individual's skin to hexavalent chromium salts in the presence of moisture.

SECTION IV: FIRST AID MEASURES

Skin Contact: An irritant; may cause burns in presence of moisture. Remove contaminated clothing. Wash immediately with water.

Eye Contact: Causes painful irritation and may cause serious damage to eyes unless immediate treatment is given. **SPEED IS ESSENTIAL.** Remove particles with cotton wood bud, irrigate with eye-wash or clean water until medical help is obtained. Obtain medical attention as soon as possible.

Inhalation: Irritating to the respiratory tract in high concentration. Remove from exposure and keep warm and at rest. Irrigate nose and throat with water for at least 20 minutes.

Ingestion: Unlikely to cause any reactions. Larger doses may irritate gastrointestinal tract. Do not induce vomiting, wash out mouth with water and give copious quantities of water to drink.

Further Medical Treatment: Symptomatic, if necessary. No known delayed effects. Prolonged or repeated contact with Skin may result in more severe irritation or dermatitis. Prolonged repeated inhalation of high Dust concentrations may cause ulceration and perforation of the nasal septum and pneumonitis.

It is advisable to ensure that eyewash facilities are readily available where Portland Cement may be handled.

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SECTION V: FIRE FIGHTING MEASURES

Portland Cements are non combustible and inhibits the spread of flame. No special fire fighting procedure, extinguisher media or explosion hazard is identified.

SECTION VI: ACCIDENTAL RELEASE MEASURES

Spillages. Contain spillage and keep dry if possible. Use vacuum suction unit, or shovel into bags (using Appropriate protective clothing – see Section 8). Cover or enclose area if possible to avoid unnecessary Dust hazard. The material can be slurried by the addition of water (see Hazardous ingredient, Section 2) but Will subsequently set as a hard material. Avoid contamination of drains and watercourses. Spillages into Watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

SECTION VII: HANDLING AND STORAGE

- VII.i Handling. Avoid contact with skin and eyes. Avoid inhalation of high concentration of dust. In the Event of spillage see section VI. Some bags may have a small amount of cement on the outer surface. Wear appropriate personal protective clothing while handling.
- VII.ii Storage. Should be stored in a cool dry environment free from draughts. Bulk storage should be in a purpose-built silo. Product in bags should be stored clear of the ground in a cool, dry, draught-free building.
- VII.iii CMS Pozament cements, where appropriate, are treated with a reducing agent to reduce the level of hexavalent chromium below 2ppm. Information is noted on each bag, or the delivery documents for bulk deliveries, giving the shelf life of the reducing agent. Uses of the cement after the stated shelf life may result in an increased risk of allergic dermatitis. The inclusion of reducing agent to reduce the level of Chromium (VI) does not remove the necessity to wear the appropriate PPE (see section VIII.ii)

SECTION VIII: WORKPLACE EXPOSURE LIMIT

- VIII.i Occupational exposure standard:

Total inhalable dust	-	10mg/m ³ (8hr TWA)
Respirable dust	-	4mg/m ³ (8hr TWA)
- VIII.ii Handling systems should preferably be enclosed, or suitable ventilation installed to maintain atmospheric dust below OES.

Wear suitable respiratory protection equipment if exposure to atmospheric dust levels above the occupational exposure standard is likely. Use approved dust respirators to EN149 category FFP3, or air-stream helmet for heavy exposure.

Rubber, leather or fabric/composite gloves provide suitable hand protection.

Wide vision full goggles to BS2092 grade 1 impact, with anti-mist for eye protection.

Long sleeved overalls, close fittings at openings. Boots that resist dust penetration.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Form:	Fine powder
Colour:	white to grey
Odour:	faint "earthy" odour
pH	12.4 (partial aqueous solution)
Solubility:	Some components sparingly soluble
Vapour Pressure:	0 at 20°C
Relative density:	3.12
Melting/decomposition point:	>1600°C

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SECTION X: STABILITY AND REACTIVITY

- X.i Stable
- X.ii Materials to avoid: Minimise exposure to air to avoid degradation. Reacts vigorously with strong acids. Attacks aluminium, lead, tin, zinc and brass in the presence of moisture.
- X.iii Hazardous decomposition products: None

SECTION XI: TOXICOLOGICAL INFORMATION

- Inhalation: High concentration of dust may be irritant to the respiratory tract.
- Skin Contact: Irritant in the presence of moisture. May cause burns.
- Eye Contact: Painful irritant, with risk of severe and permanent damage to eyes.
- Ingestion: May cause irritation of the gastrointestinal tract.
- Long Term Exposure: Prolonged and repeated skin contact may cause irritant contact dermatitis and/or allergic (chromium) dermatitis. Allergic dermatitis more commonly arises through contact with cement/water mixes than dry cement.

SECTION XII: ECOLOGICAL INFORMATION

- XII.i Ecotoxicity: The product is considered to be non toxic. Harmful to aquatic organisms in high concentrations (generally greater than 100mg/l) and prolonged contact times.
- XII.ii Mobility: Sparingly soluble in water to form alkaline solution. Low mobility in most ground conditions.
- XII.iii Persistence and degradation: Non bio-degradable – reacts with atmospheric and ground Moisture and carbon dioxide to form a hard crystalline gel of calcium silicate/aluminate hydrates.
- XII.iv Bioaccumulative Potential: The product has no potential to accumulate in the food chain.

SECTION XIII: DISPOSAL CONSIDERATIONS

Disposal should be in accordance with current local and national legislation. Portland Cement can normally be disposed only to licensed waste facilities. Contaminated packaging can be incinerated.

SECTION XIV: TRANSPORT INFORMATION

Not classified as hazardous for transport.

IMDG (Sea)	Not classified
ADR (Road)	Not classified
RID (Rail)	Not classified
IATA (Air)	Not classified

SECTION XV: REGULATORY INFORMATION

- XV.i The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. Statutory Instrument 2002 No. 1689
Classification for conveyance: none.
Classification for supply: Irritant

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Risk phrases:

- R38 - Irritating to skin
- R41 - Risk to serious damage to eyes

Safety Phrases:

- S26 - In case of contact with eyes, rinse immediately with water and seek medical advice.
- S37/39 - Wear suitable gloves and eye/face protection.
- S2 - Keep out of reach of children

- XV.ii Occupational Exposure Limits 2002 – HSE Guidance Note EH40/02
OES Inhalable dust – 10mg/m³ (8 Hr TWA)
Respirable dust - 4mg/m³ (8 hr TWA)

- XV.iii Data Sheet prepared in accordance with Directive 2001/58/EC

SECTION XVI: OTHER INFORMATION

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SECTION VII: HANDLING AND STORAGE

Storage: Bags should be stacked in a safe and stable manner.
 Handling: Due regard should be paid to the risks outlined in the Manual Handling Operations Regulations 1992. Some bags may have a small amount of material on the outer surface. Appropriate personal protective clothing (see Section VIII) should therefore be used whilst handling.

SECTION VIII: WORKPLACE EXPOSURE LIMIT

Occupational Exposure Limits: Based on 8 hour TWA Total inhalable dust - 10mg/m³
 Respirable dust - 4mg/m³
 Refer to H & S – EH40 for further guidance.
 Personal Protective Equipment: Wear overalls, approved dust masks, eye protection and safety footwear.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Cream Free Flowing Powder
 Odour: None
 pH: 9 to 10
 Boiling point: Not applicable
 Melting point: Not applicable
 Flash point: Not applicable
 Flammability: None
 Autoflammability: Not applicable
 Explosive properties: Not applicable
 Oxidising properties: Not applicable
 Vapour Pressure: Not applicable
 Relative density: Not applicable
 Solubility in water: Insoluble
 Partition coefficient: Not applicable

SECTION X: STABILITY AND REACTIVITY

Stability: Stable in the form supplied
 Conditions to avoid: None known
 Materials to avoid: None known
 Hazardous decomposition products: None known

SECTION XI: TOXICOLOGICAL INFORMATION

Short term effects: None
 Chronic effects: Prolonged and continuous exposure to free crystalline silica by inhalation can lead to irreversible health effects.

SECTION XII: ECOLOGICAL INFORMATION

Mobility: Dust may be spread by the wind.
 Degradability: Immiscible with water.
 Bioaccumulation: No data.
 Aquatic Toxicity: LC50 aquatic toxicity not known. The addition of cement to water will however Cause pH to rise and may therefore be toxic to aquatic life in some circumstances.

SECTION XIII: DISPOSAL CONSIDERATIONS

Disposal of material should be in accordance with local, state or national legislation. Keep out of reach of children.

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SECTION XIV: TRANSPORT INFORMATION

Classification for conveyance: Not required

SECTION XV: REGULATORY INFORMATION

Labelling according to CHIP 1996: Classification – not classified
Hazard symbol - Irritant

Risk Phrases: None

Safety Phrases: None

EINECS Number: Not applicable

SECTION XVI: OTHER INFORMATION

- Health & Safety at Work etc Act 1974.
- Control of Substances Hazardous to Health Regulations 1998.
- HSE Guidance Note EH26 (Occupational Skin Diseases : Health & Safety Precautions), HMSO 1981.
- HSE Leaflet MS(B)9 : Save your skin, advice to employers (1987)
- HSE Guidance Note EH40 (Occupational Exposure Limits)
- Any authorised manual on First Aid by St. John's/St. Andrew's/Red Cross.
- Manual Handling Operations Regulations 1992.

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