Material Safety Data Sheet

Product Name **AS1316 MASONRY BINARY CEMENTS**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	**AS1316 MASONRY BINARY CEMENTS**
Supplier Contact Details	Cockburn Cement A.B.N. 50.008.673.470 PO Box 38, Hamilton Hill, WA 6963 Munster Works, Lot 242, Russell Road East, Munster WA 6166 Kwinana Works, Leath Road, Kwinana WA 6167
Telephone	08 9411 1000
Fax	08 9411 1150
Emergency	Bus Hrs 08 9411 1000 A/Hrs 08 9411 1000
Email	orders@cockburncement.com.au
Web Site	http://www.cockburn.com.au & www.swancement.com.au
Synonym(s)	Masonry binary cements
Trade Names	Brickies Grey (BG), Brickies Lite (BL), Brickies Lite Coastal M4, 50/50 Cream, 50/50 Grey, Swan Coastal Cream, Brickies Grey Coastal, Floatcem, Plasterers Dark
Use(s)	BINDING AGENT · GROUT · MORTAR · RENDER · MASONRY CONSTRUCTION

2. HAZARDS IDENTIFICATION

This product is classified as hazardous according to criteria of NOHSC.

RISK PHRASES

R26/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R43	May cause sensitisation by skin contact.
R48/20	Harmful : danger of serious damage to health by prolonged exposure through inhalation.

SAFETY PHRASES

S20/21	When using do not eat, drink or smoke.
S22	Do not breathe dust.
S24/25	Avoid contact with skin and eyes.
S36/37	Wear suitable protective clothing and gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.

UN No	None Allocated	**Hazchem Code**	None Allocated	**Pkg Group**	None Allocated
DG Class	None Allocated	**Subsidiary Risk(s)**	None Allocated	**EPG**	None Allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	**Formula**	**Conc. Wt%**	**CAS No.**
Portland Cement	Not Available	72% - 88%	65997-15-1
Hydrated Lime (calcium hydroxide)	$Ca(OH)_2$	12% - 28%	1305-62-0
Chromium (VI)	Cr^{6+}	< 20 ppm	18540-29-9
*Crystalline Silica, Quartz	SiO_2	0 - 10%	14808–60-7

*NOTE: Cement and hydrated lime may contain 0%-10% crystalline silica (CAS No. 14808-60-7) depending on the proportions and crystalline silica content of the ingredients.

4. FIRST AID MEASURES

Eye	Flush thoroughly with flowing water for at least 15 minutes. Seek medical attention if symptoms persist.
Inhalation	Remove from dusty area to fresh air. If symptoms persist, seek medical attention.
Skin	Wash thoroughly with water. A shower may be required.
Ingestion	Rinse mouth and lips with water. Do not induce vomiting. Give water to drink to dilute stomach contents. If symptoms persist, seek medical attention.
Advice to Doctor	Treat symptomatically.
First Aid Facilities	Eye wash facilities should be provided.

Additional Information - Aggrevated Medical Conditions

Inhalation	Over exposure resulting from prolonged and repeated inhalation of dust containing crystalline silica can cause bronchitis, silicosis (scarring of the lung.) It may also increase the risk of scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels and internal organs) and lung cancer. Epidemiological studies have shown that smoking increases the risk of bronchitis, silicosis (scarring of the lung) and lung cancer in persons exposed to crytalline silica.
Skin	Prolonged and repeated skin contact with cement in wet concrete, mortars and slurries may cause both irritant dermatitis and allergic (contact) dermatitis. The latter is due to the presence of traces of water soluble hexavalent chromium in cement.

5. FIRE FIGHTING

Flammability	Non flammable. Does not support combustion of other materials.
Fire and Explosion	Non flammable. Does not cause dust explosions.
Extinguishing	Non flammable.
Hazchem Code	None.

6. ACCIDENTAL RELEASE MEASURES

Spillage	If spilt (bulk), contact emergency services if approriate. Wear dust-proof goggles, PVC/rubber gloves, a Class P2 respirator (where an inhalation risk exists), coveralls and rubber boots. Clear area of all unprotected personnel. Prevent spill entering drains or waterways. Collect and place in sealable containers for disposal or reuse. Avoid generating dust.
Emergency Procedures	Follow safety requirements for personal protection under Section 8 Exposure Controls/Personal Protection.

7. HANDLING AND STORAGE

Storage	Store in cool, dry, well ventilated area, removed from moisture, oxidising agents (eg. hypochlorites, phosphorus oxide), acids, (eg. hydrochloric acid),ethanol, interhalogens (eg. chlorine trifluoride) and foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.
Property/ Environmental	Refer to Section 13.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation

Do not inhale dust/powder. Use with adequate ventilation. Where a dust inhalation hazard exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.

Exposure Standards

Calcium Hydroxide (1305-62-0)
- ES-TWA: 5 mg/m^3
- WES-TWA: 5 mg/m^3

Chromium (VI) (18540-29-9)
- ES-TWA: 0.05 mg/m^3 (Chromium VI compounds)

Silica, Crystalline – Quartz (14808-60-7)
- ES-TWA: 0.1 mg/m^3 (Silica Quartz, respirable, NOHSC)
- ES-TWA#: 0.1 mg/m^3 (QLD); 0.15 mg/m^3 (NSW)
- WES-TWA: 0.2 mg/m^3

Portland Cement (65997-15-1)
- ES-TWA: 10 mg/m^3 Portland Cement
- ES-TWA#: 0.05 mg/m^3 Chromium (VI) Compounds (contaminant)
- WES-TWA: 10 mg/m^3

Gypsum (10101-41-4)
- ES-TWA: 10 mg/m^3 Inhalable dust

Calcium Carbonate (1317-65-3)
- ES-TWA: 10 mg/m^3
- WES-TWA: 10 mg/m^3

PPE

Wear dust-proof goggles and rubber or PVC gloves. Where an inhalation risk exists, wear a Class P2 respirator. If there is potential for prolonged and/or excessive skin contact, wear coveralls. At high dust levels, wear a Class P3 respirator or a Powered Air Purifying Respirator (PAPR) with Class P3 Filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Fine powder ranging in colour from grey to off-white	**Solubility (water)**	Slight, hardens on mixing with water
Odour	Odourless	**Specific Gravity**	2.5 to 3.2
pH	Approximately 12 (Alkaline)	**% Volatiles**	Not Available
Vapour Pressure	Not Available	**Flammability**	Non Flammable
Vapour Density	Not Available	**Flash Point**	Not Relevant
Boiling Point	Not Available	**Upper Explosion Limit**	Not Relevant
Melting Point	> 1200°C	**Lower Explosion Limit**	Not Relevant
Evaporation Rate	Not Available	**Autoignition Temperature**	Not Available
Bulk Density	1000 - 1600 kg/m3		
Particle Size	10 - 30% of particles are < 7 μm, ie in the respirable range		

10. STABILITY AND REACTIVITY

Reactivity	Incompatible with oxidising agents (eg hypochlorites), ethanol, acids (eg hydrochloric acid) and interhalogens (eg chlorine trifluoride). Water contact may increase product temperature 2-3 C.
Decomposition Products	May evolve toxic gases when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Slightly corrosive. Avoid eye or skin contact or dust inhalation. This product has the potential to cause acute and chronic health effects with over exposure. Crystalline silica can cause silicosis (lung disease) with chronic over exposure, however due to low levels present and product application, adverse health effects are not anticipated. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1).
Eye	Corrosive. Severe irritant upon contact with powder/dust. Over exposure may result in pain, redness, corneal burns and ulceration with possible permanent damage.
Inhalation	Slightly corrosive. Over exposure may result in severe mucous membrane irritation and bronchitis. Hexavalent chromium is reported to cause respiratory sensitisation, however due to the trace amount present, a hazard is not anticipated under normal conditions of use.
Skin	Slightly corrosive. Prolonged and repeated contact with powder or wetted form may result in skin rash, dermatitis and sensitisation.
Ingestion	Slightly corrosive. Ingestion may result in burns to the mouth and throat, with vomiting and abdominal pain. Due to product form, ingestion is not considered a likely exposure route.
Toxicity Data	Silica, Chrystalline - Quartz (14808-60-7) Carcinogenicity: Classified as a human carcinogen (IARC Group 1) Chromium (VI) (18540-29-9) Carcinogenicity: Confirmed human carcinogen (IARC Group 1) Health Surveillance: Required [NOHSC:1005(1994)] Calcium hydroxide (1305-62-0) LD50 (Ingestion): 7300 mg/kg (mouse)

12. ECOLOGICAL INFORMATION

Environment	Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Reuse or recycle where possible. Alternatively, ensure product is covered with moist soil to prevent dust generation and dispose of to an approved landfill site. Contact the manufacturer for additional information.
Legislation	Dispose of in accordance with relevant local legislation. Keep out of sewer and stormwater drains.

14. TRANSPORT INFORMATION

Shipping Name	None Allocated				
UN No	None Allocated	**Hazchem Code**	None Allocated	**Pkg Group**	None Allocated
DG Class	None Allocated	**Subsidiary Risk(s)**	None Allocated	**EPG**	None Allocated

15. REGULATORY INFORMATION

Poison Schedule	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
AICS	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information

CEMENT CONTACT DERMATITIS: Individuals using wet cement, mortar, grout or concrete could be at risk of developing cement dermatitis. Symptoms of exposure include itchy, tender, swollen, hot, cracked or blistering skin with the potential for sensitisation. The dermatitis is due to the presence of soluble (hexavalent) chromium.

IARC – GROUP 1 – PROVEN HUMAN CARCINOGEN. This product contains an ingredient for which there is sufficient evidence to have been classified by the International Agency for Research into Cancer as a human carcinogen. The use of products known to be human carcinogens should be strictly monitored and controlled.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES: The Recommendation for protective equipment contained within this MSDS report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE: It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare an MSDS report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

ABBREVIATIONS:
mg/m^3 - Milligrams per cubic metre
ppm - Parts Per Million
ES-TWA - Exposure Standard - Time Weighted Average
CNS - Central Nervous System
NOS - Not Otherwise Specified
pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline.
CAS# - Chemical Abstract Service Number - used to uniquely identify chemical compounds.
IARC - International Agency for Research on Cancer.
WES-TWA - Workplace Exposure Standard - Time Weighted Average

Report Status

This document has been compiled by Cockburn Cement the manufacturer of the product and serves as the manufacturer's Material Safety Data Sheet ("MSDS").

While Cockburn Cement has taken all due care to include accurate and up-to-date information in this MSDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Cockburn Cement accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS.

Contact Point

For further information on this product contact:

Telephone:	Office hours	08 9411 1000
	After hours	08 9411 1000
Facsimile:		08 9411 1150
Web site:	http://www.cockburn.com.au	

Advice Note

The information in this document is believed to be accurate. Please check the currency of this MSDS by contacting:

08 9411 1000

or
http://www.cockburncement.com.au or www.swancement.com.au

The provision of this information should not be construed as a recommendation to use this product in violation of any patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their particular purposes and specific circumstances. Users should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace and in conjunction with other substances or products.