SAFETY DATA SHEET
HES GROUT

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1. Product Identifier

Product Name HES Grout

Synonyms High Early Strength Grout, Class C Grout

1.2. Uses and uses advised against

Uses HES Grout is a fast setting grout with rapid high early strength and adjustable consistency for a wide range of applications.

1.3. Details of the supplier of the product

Supplier Name **WEST BUILD PRODUCTS PTY LTD**
Address **67 Hartman Drive, Wangara, WA 6065 AUSTRALIA**
Telephone **08 9309 2029**
Fax **08 9302 1129**
Email **technical@westbuildgroup.com**
Website **www.westbuildgroup.com**

1.4. Emergency telephone numbers

Emergency **0408 004 184**

2. HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS Classifications Skin Corrosion/Irritation: Category 2
Serious Eye Damage / Eye Irritation: Category 1
Specific Target Organ Systemic Toxicity (Single Exposure): Category 3

2.2. GHS Label Elements

Signal Word **DANGER**

Pictograms

Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Prevention Statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response Statements

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment is advised - see first aid instructions.
P332 + P337 + P313	If skin or eye irritation occurs: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before re-use.

Storage Statements

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal Statements

P501	Dispose of contents/container in accordance with relevant regulations.

2.3. Other Hazards

Some susceptible individuals may exhibit an allergic skin response upon exposure to Portland Cement, possibly due to trace amounts of chromium. Prolonged exposure to Portland Cement in the wet form can cause serious, potentially irreversible skin or eye damage in the form of chemical burns. The same serious injury can occur if wet or moist skin or eyes have prolonged contact exposure to dry Portland Cement.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances / Mixtures

Ingredient	CAS Number	EC Number	Content / Proportion
FONDU, CEMENT, ALUMINA, CHEMICALS	65997-16-2	266-045-5	40 to 50%
SAND SILICA QUARTZ	14808-60-7	238-878-4	40 to 45%
PORTLAND CEMENT	65997-15-1	266-043-4	5 to 15%
CALCIUM SULFATE	7778-18-9	231-900-3	< 5%
LITHIUM CARBONATE	554-13-2	209-062-5	< 1%
PETROLEUM DISTILLATES, SOLVENT-REFINED LIGHT PARAFFINIC	64741-88-4		< 0.5%
PETROLEUM DISTILLATES, SOLVENT-REFINED HEAVY PARAFFINIC	64741-89-5		< 0.5%
TARTARIC ACID	526-83-0		< 0.1%
ATTAPULGITE	12174-11-7		< 0.1%
PROPRIETARY ADDITIVES	--	--	2-10%

Ingredient Notes:
1. Depending upon the source material, may contain varying amounts of respirable quartz (crystalline silica).
2. Chromium VI (Hexavalent Chromium) is a trace impurity in Portland Cement (< 20 ppm).
3. This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

4. FIRST AID MEASURES

4.1. Description of First Aid Measures

Eye If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. Seek medical attention. Apply artificial respiration if not breathing.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Rinse mouth out with water and give plenty of water to drink. Material highly irritating and mildly corrosive if swallowed.

First Aid Facilities Eye wash facilities should be available.

4.2. Most important symptoms and effects, both acute and delayed

Irritating to the eyes, skin and respiratory system. Chronic over exposure to silica quartz dust may result in silicosis (lung disease). Principal symptoms of silicosis are coughing and breathlessness. Some individuals may exhibit an allergic response upon exposure to this product, possibly due to the trace amounts of chromium present. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1).

4.3. Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1. Extinguishing Media

Use an extinguishing agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Non flammable. May evolve toxic gases if strongly heated.

5.3. Advice for firefighters

Treat as per requirements for surrounding fires. Evacuate area and contact emergency services. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4. Hazchem Code

None allocated.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Contact emergency services where appropriate.

6.2. Environmental precautions

Prevent product from entering drains and waterways.

6.3. Methods of cleaning up

Contain spillage, then collect and place in suitable containers for reuse or disposal. Avoid generating dust.

6.4. Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1. Precautions for safe 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.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from moisture, incompatible substances and foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.

7.3. Specific end uses

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m^3	ppm	mg/m^3
Cristobalite (respirable dust)	SWA (AUS)	--	0.1	--	--

Portland Cement	SWA (AUS)	--	10	--	--
Quartz (respirable dust)	SWA (AUS)	--	0.1	--	--
Tridymite (respirable dust)	SWA (AUS)	--	0.1	--	--
Calcium Sulfate	SWA (AUS)	--	10	--	--
Petroleum distillates, solvent-refined heavy paraffinic	SWA (AUS)	--	5	--	10
Petroleum distillates, solvent-refined light paraffinic	SWA (AUS)	--	5	--	5

Biological limits No biological limit values have been entered for this product.

8.2. Exposure controls

Engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.

PPE

Eye / Face Wear dust-proof goggles. (Contact lenses pose a hazard.) Eyewash unit should be present to flush eyes in the event of contamination.

Hands Wear PVC or rubber gloves and barrier cream.

Body When using large quantities or where heavy contamination is likely, wear coveralls and rubber boots.

Respiratory Where an inhalation risk exists, wear a Class P1 (Particulate) respirator. At high dust levels, wear a Powered Air Purifying Respirator (PAPR) with Class P3 (Particulate) filter or a Class P3 (Particulate) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	FINE GREY SAND/CEMENT BASED POWDER
Odour	NO ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	NOT AVAILABLE
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	ALKALINE
Vapour density	NOT AVAILABLE
Specific gravity	NOT AVAILABLE
Solubility (water)	NOT AVAILABLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

10. STABILITY AND REACTIVITY

10.1. Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2. Chemical stability

Stable under recommended conditions of storage.

10.3. Possibility of hazardous reactions

Polymerization will not occur.

10.4. Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5. Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), ethanol, acids (e.g. hydrofluoric acid), fluorine and interhalogens (e.g. chlorine trifluoride and bromine trifluoride). Water contact may increase product temperature 2°C to 3°C.

10.6. Hazardous decomposition products

May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Component Information:

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Synthetic Amorphous Silica	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	LC0: >= 0.139 mg/l (4hr). Maximum attainable concentration. No deaths occurred.
Polyalkylene glycol	= 3750 mg/kg (Rat) > 2 g/kg (Rat)	-	-
Petroleum distillates, solvent-refined heavy paraffinic	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.53 mg/L (Rat) 4 h
Petroleum distillates, solvent-refined light paraffinic	> 15 g/kg (Rat)	> 5 g/kg (Rabbit)	= 2.18 mg/L (Rat) 4 h
Modified Silica	= 7900 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h
Polyglycol	(Rat) = 16 g/kg(Rat)	-	= 320 mg/m^3 (Rat) 4 h

Based on available data, the classification criteria for other ingredients are not met.

Skin Irritating to the skin. Contact with powder or wetted form may result in irritation, pain, redness, rash and dermatitis with possible permanent damage.

Eye Causes serious eye damage. Contact with moisture in the eyes may result in irritation, lacrimation, pain, redness, conjunctivitis and possible alkaline burns aided by mechanical irritation and abrasion.

Inhalation Dust is irritating to upper respiratory tract and lungs. Over exposure to respirable dust may cause coughing, wheezing and irritation to the nasal passages.

Ingestion Material is irritating and mildly corrosive if swallowed. Ingestion may result in nausea, abdominal irritation, pain and vomiting.

Sensitisation Not classified as causing respiratory sensitisation. However, some individuals may exhibit an allergic response upon exposure to cement, possibly due to trace amounts of chromium.

Mutagenicity Insufficient data available to classify as a mutagen.

Carcinogenicity Hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1), however due to the trace amounts present, the criteria for classification is not met.

Reproductive Insufficient data available to classify as a reproductive toxin.

STOT – single exposure Irritating to the respiratory system. Over exposure may result in irritation of the nose and throat, with coughing. High level exposure may result in breathing difficulties.

STOT – repeated exposure Not classified as causing organ damage from repeated exposure. Repeated exposure to crystalline silica may cause lung fibrosis (silicosis), however due to the low levels of respirable crystalline silica in this product, adverse health effects are not anticipated with normal use.

Aspiration This product is a solid and aspiration hazards are not expected to occur.

12. ECOLOGICAL INFORMATION

Toxicity

Component Information:

Chemical name	Algae	Fish	Daphnia magna
Synthetic Amorphous Silica	EC50, 72h: Pseudokirchneriella subcapitata: 440 mg/L	LC50: >10000 96h (Brachydanio rerio)	EC50: >10000 24h
Polyalkylene glycol	-	LC50 (96h): >100 mg/L (Rainbow trout)	EC50 (48 h): > 100 mg/l
Petroleum distillates, solvent-refined heavy paraffinic	-	5000: 96 h Oncorhynchus mykiss mg/L LC50	1000: 48 h Daphnia magna mg/L EC50
Petroleum distillates, solvent-refined light paraffinic	-	5000: 96 h Oncorhynchus mykiss mg/L LC50	1000: 48 h Daphnia magna mg/L EC50
Modified Silica	440: 72 h Pseudokirchneriella subcapitata mg/L EC50	5000: 96 h Brachydanio rerio mg/L LC50 static	7600: 48 h Ceriodaphnia dubia mg/L EC50
Polyglycol	EC50, 48 hr: >100 mg/L	LC50: >100 mg/l (Golden orfe), 96 hr	EC50 (48 h): > 100 mg/l

Based on available data, classification criteria for other ingredients is not met, and there is a high probability that the product is not acutely harmful to aquatic organisms. However, due to the high pH of Portland Cement, the pH of waterways may be increased with adverse effects on aquatic life. This product is non-toxic to aquatic organisms when present as a cured solid.

12.1. Persistence and degradability

Not applicable for inorganic substances.

12.2. Bioaccumulative potential

Does not appear to bioconcentrate.

12.3. Mobility in soil

The product hardens to a solid immobile substance. The product is not volatile but may be spread by dust-raising handling.

12.4. Other adverse effects

No information provided.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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/supplier for additional information (if required). Must not be disposed together with household garbage. Do not allow product to reach sewerage system.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1. UN Number	None allocated.	None allocated.	None allocated.
14.2. Proper Shipping Name	None allocated.	None allocated.	None allocated.
14.3. Transport Hazard Class	None allocated.	None allocated.	None allocated.
14.4. Packing Group	None allocated.	None allocated.	None allocated.

14.5. Environmental hazards

No information provided.

14.6. Special precautions for user

Hazchem code None allocated.

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

Hazard codes

Xi	Irritant

Risk phrases

R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.

Safety phrases

S22	Do not breathe dust.
S25	Avoid contact with eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37/39	Wear suitable gloves and eye/face protection.

Inventory listings **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**
All components are listed on AICS, or are exempt.

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.

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 report is provided as a guide only. Factors such as form of product, 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: form of product; 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 a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (highly acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)

SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report status

This document has been compiled by West Build Products Pty Ltd and serves as a Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to West Build Products Pty Ltd by our suppliers or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While West Build Products Pty Ltd has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, West Build Products Pty Ltd 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 SDS.

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