

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF PRODUCT AND COMPANY

Product: Monotect Hybrid Grout – Part A

Company: Ronacrete (Far East) Ltd., 16/F, No. 3 Lockhart Rd,
Wanchai, Hong Kong SAR

Tel/Fax: +852 2865 5872 / +852 2865 5568

2. COMPOSITION

Ingredient	CAS number	Proportion
Water	7732-18-5	HIGH
Sodium Silicate	1344-09-8	HIGH

Proportion (% weight/weight): VHIGH >60, HIGH 30 – 60, MED 10 – 29, LOW 1 – 9, VLOW <1

3. FIRST AID MEASURES

Notes to physician: Treat symptomatically.

Ingestion: Rinse mouth with water. Give large quantities of water to drink. DO NOT induce vomiting. Seek immediate medical assistance.

Inhalation: Move subject to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

Skin contact: Immediately flush contaminated skin with water for at least 15 minutes. Remove contaminated clothing and wash before re-use. Thoroughly clean shoes before reuse to avoid slipping. Seek medical attention.

Eye contact: Immediately irrigate with copious quantities of water for at least 15 minutes lifting eyelids occasionally. Seek immediate medical assistance.

4. FIRE FIGHTING MEASURES

Specific hazards: Not flammable. Reactions with incompatible materials will accelerate at higher temperature. See section 7 below for possible incompatible materials,

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Required special equipment for fire fighters: Chemical goggles, body covering protective clothing, chemical gloves and rubber non-slip boots.

Fire fighting further advice: Not classified as flammable. Spilled material may be extremely slippery. May produce hydrogen gas in contact with incompatible metals. See section 7 below.

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5. ACCIDENTAL RELEASE MEASURES

For minor spillage:

1. Wear skin and eye protection.
2. Treat spillage with solid media (eg sand, sawdust or chemical binder).
3. Care should be taken as area of spillage will become very slippery.
4. Remove and dispose of residues according to local authority regulations.

For major spillage:

1. Clear area of all unprotected personnel
2. Prevent run off into drains and waterways.
3. Recover as much liquid as possible.
4. Treat remaining liquid with solid media
5. Remove solid material and dispose of in landfill or incinerate in accordance with appropriate regulations.
6. Wash down area with excess water.
Care must be taken as area of spillage will become extremely slippery.

6. HANDLING AND STORAGE

Handling: Avoid skin, eye and clothing contact. Avoid inhalation of spray mist. Wear appropriate personal protective equipment. Keep containers closed. Promptly clean residue from closures and exterior of packaging with a damp cloth. Promptly clean up spills and avoid slip hazards.

Storage: Store in clean plastic or steel containers. Recommended storage temperature 0 – 95°C. Keep from freezing. Do not store in glass, aluminium, fibreglass, copper, brass, zinc or galvanised containers. Will gel and generate heat when in contact with acids. May react with ammonium salts and evolve ammonia gas. Flammable hydrogen gas may be produced in contact with aluminium, tin, lead and zinc. Keep away from incompatible materials.

7. EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits:

No values assigned for this specific material by the National Occupational Health and Safety Commission (NOHSC Australia).

8. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour:	Odourless clear to translucent colourless to straw coloured liquid
Specific gravity (20° C):	1.39 to 1.41
Viscosity:	10 – 60 CPS
% Solids by weight:	42 - 46%
pH:	11 – 11.5
Solubility:	Soluble in water
Boiling point (°C):	100° C (Water)
Flash point (°C):	Non Combustible
Flammability limits (%):	Not Applicable
Autoignition Temp (°C):	Not Applicable
Vapour pressure (20° C):	17 mm Hg (Water)
Vapour density:	<1 (Water)
Melting point (°C):	Not Available
Decomposition point (°C):	Not Applicable
Sublimation point (°C):	Not Applicable
Evaporation rate:	Not Applicable

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9. STABILITY AND REACTIVITY

This product is considered stable when stored in plastic or steel containers between 0°C and 95°C. Material is strongly alkali and will react with acids to produce heat and a gel. It may react with ammonium salts to produce ammonia gas. Hydrogen gas may be produced in contact with aluminium, tin, lead and zinc. Will etch glass if not removed immediately.

10. TOXICOLOGICAL INFORMATION

No Adverse health effects expected if the product is used in accordance with this MSDS. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Eye contact: Moderate irritation expected.

Skin contact: Irritation generally occurs when the product saturates clothing especially at places of abrasion and contact such as the cuffs and collar.

Inhalation: Inhalation of vapours is generally not irritating, however inhalation of mists is likely to create irritation or burning to the respiratory tract.

Acute toxicity / Chronic toxicity: No LD50 data available for this product. However for 100% sodium silicate solid: Oral LD50 (rat): 1500 mg/kg – 3200 mg/kg. The acute oral toxicity was from non specific causes. This product contains less than 40% Sodium silicate.

11. ECOLOGICAL INFORMATION

Avoid contaminating waterways. High pH of undiluted material is extremely toxic to aquatic organisms. The material is not persistent in aquatic systems. Diluted material rapidly depolymerises to yield dissolved silica that is indistinguishable from naturally occurring silica. The material does not bioaccumulate except in species that use silica as a structural element.

12. DISPOSAL CONSIDERATIONS

Refer to Local authority. Solid material can be disposed of in land fill in accordance with local, state and Federal government regulations.

13. REGULATORY INFORMATION

This material is Hazardous according to the criteria of NOHSC (Worksafe Australia). Xi – Irritant.

This material is not classified as Dangerous Goods or regulated for transport.

Risk Phrases:

R20/22 Harmful by inhalation and if swallowed.

R36/37/38 Irritating to eyes, respiratory system and skin.

R34 Causes burns.

Safety Phrases:

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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14. OTHER INFORMATION

This MSDS summarises at the date of issue our best knowledge of health and safety hazard information for this product, and in particular how to safely handle and use the product in the workplace. Each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

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Company: Ronacrete (Far East) Ltd., 16/F, No. 3 Lockhart Rd,
Wanchai, Hong Kong SAR

Tel/Fax: +852 2865 5872 / +852 2865 5568

2. COMPOSITION/INFORMATION ON INGREDIENTS

Composition: Portland cement and other minor ingredients

Hazardous Ingredients	Symbol	Risk	Phrases	CAS No %
Portland cement	Xi	R36/37/38	65997-15-1	>60 <100

3. HAZARDS IDENTIFICATION

Irritant to eyes, respiratory system and skin.

4. FIRST AID MEASURES

Eyes: Irrigate immediately with copious quantities of water for several minutes. Obtain medical attention immediately.

Skin: Remove contaminated clothing. After contact with skin wash immediately with plenty of clean water. Seek medical attention if irritation persists.

Inhalation: Remove from exposure, rest and keep warm and obtain medical attention immediately.

Ingestion: Wash out mouth with water. Do NOT induce vomiting. Obtain medical attention.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Will not support combustion. Compatible with all standard fire fighting equipment.

Special Exposure Hazards: None.

Special Protective Equipment: None.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear suitable protective clothing, gloves and eye/face protection.

Environmental Precautions: Prevent entry into drains, sewers and water courses.

Cleaning up Methods: Carefully sweep or vacuum up the product and transfer to marked containers to await disposal. Wash away any residue with plenty of water.

7. HANDLING AND STORAGE

Handling: Avoid creating dust. Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid skin and eye contact.

Storage: Store in dry frost free conditions below 35°C.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupation Exposure Limits:-

Substance	8 hour TWA	Source/Other Information
silica, amorphous: total inhalable dust respirable dust	6 mg/m ⁻³ 3 mg/m ⁻³	EH40
Portland cement: total inhalable dust respirable dust	10 mg/m ⁻³ 5 mg/m ⁻³	EH40

Further information is given in guidance note EH44 - dust in the workplace.

RESPIRATORY: Normal conditions of ventilation are usually adequate. Wear a fine particle mask or use local ventilation as necessary when mixing in confined areas with inadequate ventilation or whenever there is a risk of the exposure limited being exceeded. This applies not only to the user, but all people who cannot be vacated from the work area.

HAND: Use heavy duty gloves. Barrier creams may help to protect exposed areas but are not suitable for full physical protection. They should not be applied once exposure has occurred.

EYE: Eye protection designed to protect against liquid splashes, conforming to BS2092 Chemical Grade, should be worn when handling to dry powder or when there is risk of mixed material entering the eye. Eye protection is essential when handling alkaline material.

SKIN: Wear suitable overalls. Remove grossly contaminated clothing and wash skin with plenty of clean water. Practice good personal hygiene.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Fine-grained, very dusty grey powder
Odour:	Odourless
pH:	approx. 12 when mixed with water
Solubility in Water:	Insoluble

10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions to Avoid:	Exposures to air. Contamination with water.
Materials to Avoid:	Strong acids.
Hazardous Decomposition Product:	None.

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11. TOXICOLOGICAL INFORMATION

Health Effects

On Eyes: Risk of serious damage to eyes.

On Skin: Irritation. See "chronic" effects.

By Inhalation: Dust nuisance. Prolonged exposure to dust may cause irritation to the respiratory system.

By Ingestion: May cause irritation of mouth, throat and digestive tract.

Chronic: Cement, cementitious grouts and mortars are known to cause both irritant and allergic contact dermatitis. Prolonged skin contact can result in chemical burns.

12. ECOLOGICAL INFORMATION

Product should not be disposed off into rivers or other water courses without pre-treatment. Measures should be taken to prevent the release of dust to the environment. Appropriate additions of low concentrations to biological water treatment plants are not expected to cause any disturbances. Attention must be paid to local water treatment regulations.

13. DISPOSAL CONSIDERATIONS

The product is not classified as hazardous waste and is suitable for controlled waste site disposal. Do not allow into water courses or dispose of where ground or surface waters may be affected.

DISPOSAL MUST BE IN ACCORDANCE WITH LOCAL AND NATIONAL LEGISLATION

14. Transport Information

The product is not classified as dangerous for Transport

15. REGULATORY INFORMATION

Hazard Label Data:-

Names Ingredients: cement powders

Symbol: Xi

Risk Phrases: Irritating to eyes, respiratory system and skin.

Safety Phrases: Do not breathe dust. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. Occupational exposure limits and standards are advised in Publication EH40 from the HSE for the purpose of regulations 7(1) of the COSHH regulations.

16. OTHER INFORMATION

Training Advice: The user should be trained to handle the products to avoid the creation of dust and be fully aware of the reactions and hazards. The normal precautions relating to handling chemicals must be observed.

Data Sources: EH40/94 Occupational Exposure Limits 1991.
HSE Guidance Note EH44; Dust in the Workplace: General Principles of Protection COSHH Regulations 1988.

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