

MATERIAL SAFETY DATA SHEET

Section 1: Substance/preparation and company identification

Company: Warrior Pte Ltd

Contact address:

17 Marsiling Industrial Estate Road 1 #01-11

Singapore 739279

Telephone: +65 6364 5100 Facsimile: +65 6364 0629

E-mail address: war99@singnet.com.sg

Section 2: Composition/information on ingredients

Chemical nature: Calcium aluminate clinker 100 wt %

Hazardous components

Name	CAS-No.	EC-No.	Content	Identification
Calcium-aluminate-clinker	65997-16-2	266-045-5 100	100 %	Not relevant

Section 3: Hazardous identification

Danger characterisation

Not relevant

Special danger remarks

• When mixed with water, the product may cause temporary for individuals irritation to the eye and skin in case of extended contact. In spite of the pH (11-11.5), the alkaline reserve is limited. The product is not classified as irritant according to Directive 67/548/EEC or Regulation (EC) No 1272/2008.

Section 4: First-Aid Measures

General remarks

Not relevant

After inhalation

Reference to medical instruction

After skin contact

Wash off immediately and thoroughly with abundant water, seek medical advice if necessary.

After eye contact

• In case of eye contact wash off immediately and thoroughly with abundant water and seek medical advice (S26).

After swallowing

• Rinse out mouth, drink water, cause no vomiting and consult a physician.



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Section 5: Fire-Fighting Measures

Not relevant; product is incombustible

Section 6: Accidental Release Measure

Man-related protective measures

Avoid skin and eye contact, avoid dust, safeguarding of sufficient ventilation / sufficient breath protection.

Environment protection measures

 Avoid uncontrolled entry into the sewage system or into the outfall drain, especially after uncontrolled water addition.

Procedures for cleaning / absorbing

Pick up mechanically (dry)

Additional remarks

Hardens after contact with water after 3 - 4 h, and can be disposed like concrete afterwards

Section 7: Handling and Storage

Handling

Instructions for safe handling

- Avoid dust development
- Avoid skin and eye contact
- During working avoid skin contact through use of appropriate protective clothing.

Advice for fire and explosion protection

Not relevant

Storage

• Requirements on store-rooms Protected from moisture in closed rooms and containers and tanks Dust precipitation according to "BImSchG" or "TA Luft", or according to relevant national regulations



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Handling

• Handle in well ventilated areas. Avoid handling which leads to dust formation. No sparking tools should be used. Dust mask and safety goggles are recommend as fine powder can become airborne and may be irritating to the eyes and nose. This product should not be spilled, dumped or flushed into sewers or public waterways. Any spilled powder should be swept up. Mechanical handling of the powder on inadequately grounded equipment can result in static electrical discharges. All handling equipment must be properly grounded.

Storage

Requirements on store-rooms Protected from moisture in closed rooms and containers and tanks Dust precipitation according to "BImSchG" or "TA Luft", or according to relevant national regulations

Section 8: Exposure Controls/ Personal Protection

Additional instructions for planning technical plants

Not relevant

Components with occupational related and controlled limit values

CAS-No.	Name of substance	Kind of limit value	Value	Unit
65997-16-2	Calcium aluminate cement	General dust limit	6	mg/m³ (A)
			Values according to TRGS 900	

Personal protective equipment

Breath protection

 Leaflet BGR 190 "Rules for the use of respiratory equipment", Hauptverband d. gewerbl. BG*: e. g., particle filtrating half mask or particle filter P1-P3 *

Hand protection

Leaflet BGR 195 "Rules for the use of protective gloves", Hauptverband d. gewerbl. BG: e. g., when
preparing mortar or concrete, wear nitrile impregnated cotton gloves with CE mark *

Eye protection

• Leaflet BGR 192, Rules for the use of eye and face protection", Hauptverband d. gewerbl. BG: e.g. protecting goggles with vision screen, type X ZZ 3 or 4 #

Body protection

Not relevant

General protective and hygienic measures

Skin protection according to skin protection plan following Leaflet BGR 197, Rules for skin protection", Hauptverband d. gewerbl. BG

^{* =} German Federation of statuary accident insurance institutions for the industrial sector

^{# =} or according to relevant national regulations



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Section 9: Physical and Chemical Properties

Form: powderColor: greyOdor: inodorous

Safety Relevant Data

	Value/Range	Unit	Method (67/548/EG)
Change of status / melting point	1270-1440	℃	Not relevant
Flash point		℃	Not relevant
Flammability (solid, gaseous)			Not relevant
Flammable temperature		℃	Not relevant
Auto flammability	 	℃	Not relevant
Explosion risk			Not relevant
Explosion limits	 		Not relevant
Vapour pressure			Not relevant
Density	3.2 T = 20 °C	g/cm ³	A.3. 1.4.2.
Water solubility (depending on product, degree of hydration)	up to 1.5 T = 20 ℃	g/I	A.6. 1.4.2.
pH-value	11.0 − 11.5 T = 20 °C		(Depending on the product, saturated solution)

Section 10: Stability and Reactivity

Not Relevant

Section 11: Toxicological Information

Toxicological tests Acute toxicity

• In-vivo-animal tests showed no acute dermal toxicity.

Specific symptoms in animal tests

Not relevant

Irritant/etching effect

Not relevant

Sensibilisation

Not tested



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Cancerogenic, genetically modifying and reproduction endangering effects

Not relevant

Practical experience Classification-relevant observations

Not relevant

Other observations

• When mixed with water, the product may cause temporary irritation to the eye and skin in case of extended contact. Mechanical skin stress at the same time is able to intensify such effects.

Section 12: Ecological Information

Information on elimination (persistency and degradation)

Not relevant, inorganic mineral building material

Behaviour in environmental compartiments

Not relevant, inorganic mineral building material

Eco-toxicity effects

Possible only in case of unintentional release of larger quantities in combination with water because
of a higher pH-value

Further ecological remarks

No data available

Section 13: Disposal considerations

Product (unused residue)

Recommendation

Further use possible after picking-up dry

Waste code no.

Not relevant

Product (after addition of water, hardened)

Recommendation

After addition of water disposal like concrete

EWC waste code no.

• 170101 concrete (simplified proof in case of more than 5 tons per year and producer)

Impure packaging

Recommendation

 When taking back the (sale) packaging, a dry removal of attached remainders of the preparation is possible.

Recommended cleaner

Not relevant



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Section 14: Transportation information

Identification

Identification letter and

danger indication Not relevant

R-phrases none

S-phrases S 2 Keep out of the reach of children

S 22 Do not breath dust

S 24/25 Avoid contact with skin and eyes

S 26 In case of contact with eyes, rinse immediately with

plenty of water and seek medical advice

S 28 After contact with skin, wash immediately with plenty

of water

S 37/39 Wear suitable gloves and eye/face protection

Further remarks Contains less than 2 ppm chromium VI according to TRGS 613

National Regulation

Employment limitations Not relevant
Regulation for interference Not relevant
Classification according to VbF Not relevant
Technical instruction "TA Luft" No. 5.2.3

Water endangering class WGK 1 (slightly water endangering)

Other regulations, limitations

and prohibiting orders Industrial medical principles and regulations of labour protection

(VBG, BGR leaflets and other), or according to relevant national

regulations

Section 16: Other information

- Any other intended applications should be discussed with the manufacturer.
- If you have any queries relating to this MSDS, it's contents or any other product safety related questions, please write to the following e-mail address: war99@singnet.com.sg
- The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.