

## MATERIAL SAFETY DATA SHEET

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3.

4.

**Bonding Clay** 

Sodium Silicate

Date: 14/09/2022

### In emergency Phone: (03) 215 9179 or 0800 748 848

### SECTION 1 - IDENTIFICATION

### PRODUCT GROUP: ALUMIO9-SILICATE MORTAR

Produc	t Names:	ST13 FIRECEM	ENT		
U.N. N	umber:	Not Allocated	Hazch	em Code:	Not Allocated
Dangerous Goods Class:		Not Allocated	Toxic	Toxic Substances Schedule: Not Applicat	
Use: Refractory mortars for use in kilns and furnaces.					
Classification: Dense refractory mortars.					
Packaging: Ready to use material supplied in plastic pails					
Other	Properties:	None			
Ingred	lients:				
Chemical Entity		CAS No.	Proportion:	TWA Limit:	
1.	Alumino-Silicat	e Aggregates		>60%	Not Applicable
2.	Silica as Cristol	palite	14464-46-1	<0.1%	0.1mg/m3

1332-58-7

1344-09-8

10-30%

10-30%

2.0mg/m3

2.0mg/m3



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# SECTION 2 - PHYSICAL DATA

Boiling Point:	Not Applicable	Specific Gravity (H <sup>2</sup> 0=1)	2.0-3.0
Vapour Pressure(mmHg):	Not Applicable	Percent Volatile by Volume (%)	Not Applicable
Vapour Pressure(Air=1):	Not Applicable	Evaporation Rate (Butyl Acewtate-1):	Not Applicable
Solubility in Water:	Insoluble in cold water	(Sodium Silicate only)	
Appearance and Odour	Premixed – ready to use, paste, no odour		

#### **Alumino-Silicate and High Alumina Mortar**

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## SECTION 3 - STABILITY AND REACTIVITY

Chemical Incompatibilities: Hazardous Decomposition Products: Strong acids None

## SECTION 4 – HEALTH HAZARD IMFORMATION

#### **Health Effects**

Acute	Swallowed:	May cause irritation (low toxicity).
	Eye:	May cause irritation if entering the eye. (Alkali burns)
	Skin:	May irritate sensitive skin
	Inhaled:	Not applicable

#### Chronic

There is no known chronic effects of prolonged exposure to the Sodium Silicate bond.

**FIRST AID PROCEDURE**: If ST13 is in eyes irrigate with water for at least 15 minutes to remove all particles especially between eye and eyelid. Obtain medical attention immediately. If **ingested**, drink plenty of water. Seek medical assistance immediately. On **skin** wash with water.

If Symptoms of discomfort persist, seek medical assistance.

ADVICE TO DOCTOR: The Sodium Silicate bond is strongly alkaline. Treat accordingly.



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SECTION 5 – PRECAUTIONS FOR USE		
Exposure Standards:	At present there are TWA Limits of 0.1 mg/m <sup>3</sup> for exposure to crystalline silica and 2.0mg/m <sup>3</sup> for Sodium Silicate.	
Engineering Controls:	Premixed products are normally installed while damp and no special precautions are required. However if the product is allowed to dry out during installation then ventilation is required to keep exposure level below exposure standard.	
Personal Protection:	Gloves, eye protection and safety clothing such as cotton overalls should be worn when installing ST13.	
Flammability:	Not Flammable.	
Alumino-Silicate Mortars		

SECTION 6 – SAFE HANDLING INFORMATION

Storage and Transport:	No special storage or transport requirements necessary.
Spills and Disposal:	Spills of Firecement should firstly be absorbed in an inert material suck as sand or earth then treated as dry material. Small amounts may be flushed down with plenty of water.
Fire Explosion Hazard:	Non Flammable.
Incompatibility:	Reacts violently with Fluorine.



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# SECTION 7 - DEMOLITION

Precautions during Demolition:	: Alumino-Silicate materials when heated in normal use may change in composition to yield new or additional hazardous materials such as cristobalite. Removal of these products after service may generate dust containing cristobalite. Repeated inhalation of respirable free crystalline silica dust may cause delayed lung injury (silicosis). The International Agency for Research on Cancer (IARC) has placed crystalline silica 2A (IARC believes there is sufficient evidence of carcinogenicity in animals but evidence for the carcinogenicity to humans is limited).	
	The recommended TWA limit for respirable cristobalite is 0.1 mg/m <sup>3</sup> . Appropriate ventilation and respiratory protection should be provided to maintain safety within this limit. During demolition, take care to minimise the generation of dusts by keeping damp if possible. At all times wear an approved dust respirator, gloves, eye protection and full protective clothing.	
Hazardous Compound		
	CAS Number	TWA Limit (mg/m³)
Silica (as Cristobalite)	14464-46-1	0.1 (respirable dust)
Disposal of Waste:	Comply with Local and National requirements for the disposal of non-hazardous solid wastes.	

T.W.A – Time Weighted Average exposure standard (over 8 hours)

The information provided herein was obtained from sources considered to be accurate, as at the above date, but no Warranty (expressed or implied) is made.

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