

## SAFETY DATA SHEET

(Following Regulations (EC) No 1907/2006 & (EC) No 1272/2008)

SDS Number: 655 Date of first issue: 24 March 2016 Date of last revision: 21 February 2022

### 1 - Identification of product

#### 1.1 - Identification of Product

**Tradenames:** CALOCEM,

The above mentioned products are mortars.

#### 1.2 - Use of Product

Application as high temperature processing, lining of industrial furnaces, thermal insulation of kilns, etc... (Please refer to specific technical data sheet for more information).

#### 1.3 - Identification of Company

IDENTIFICATION OF THE MANUFACTURER/SUPPLIER

Morgan Advanced Materials  
Thermal Ceramics  
30-36 Birralee Road, Regency Park, SA 5010, Australia  
Telephone: 1800 467 858  
Fax: 1800 467 850

#### Website

www.morganthermalceramics.com  
sds.tc@morganplc.com

#### 1.4 - Emergency information

EMERGENCY CONTACT NUMBER

Tel 1: +91 (4172) 244 313 extn no. 215 or 201  
Language: English

Opening hours: Only available during office hours

### 2 - Hazard Identification

#### 2.1 - Classification of the substance/ mixture

2.1.1 CLASSIFICATION ACCORDING TO REGULATION (EC) NO 1272/2008

Not classified as hazardous according to Classification, Labelling and Packaging regulations (CLP) 1272/2008 EEC

#### 2.2 - Labelling Elements

Not applicable

#### 2.3 - Other hazards which do not result in classification

Contains alkaline liquid, which is irritating to skin and could cause damage to eyes.

Mild mechanical irritation to skin, eyes and upper respiratory system may result from exposure to high dust concentrations of dried product. These effects are usually temporary.

### 3 - Composition / Information On Ingredients

#### 3.2 Mixture

These products are very high temperature mortars.

Component	% by weight	CAS No.	REACH Registration Number	Hazard Classification according to CLP
Anorthite	30-70	Not Applicable	Not yet available	Not classified
Clay	5-40	1332-58-7	Not yet available	Not classified
Sodium-silicate M.R. >3.2	20-30	1344-09-8	01-2119448725-31	Not classified
Alumina	0-20	1344-28-1	01-2119817795-27	Not classified
Other surfactant and starch	<3	Not Applicable	Not yet available	Not classified

None of the components are radioactive under the terms of European Directive Euratom 96/29.

#### 4 - First-Aid measures

##### Skin

In case of skin irritation rinse affected areas with water and wash gently. Do not rub or scratch exposed skin.

##### Eyes

In case of eye contact flush abundantly with water; have eye bath available. Do not rub eyes. Seek medical attention if irritation persists.

##### Nose and Throat

If these become irritated move to a dust free area, drink water and blow nose. Seek medical attention if irritation persists.

If symptoms persist, seek medical advice.

##### 4.2 - Most Important symptoms and effects, both acute and delayed

No symptoms or effects expected either acute or delayed

##### 4.3 - Indication of any immediate medical attention and special treatment required

No special treatment required, if exposure occurs wash exposed areas to avoid irritation.

#### 5 - Fire-fighting measures

##### 5.1 - Extinguishing media

Use extinguishing agent suitable for surrounding combustible materials.

##### 5.2 - Special hazards arising from the substance or mixture

Non-combustible products,

##### 5.3 - Advice for firefighters

Packaging and surrounding materials may be combustible.

#### 6 - Accidental Release Measures

##### 6.1 - Personal precautions, protective equipment and emergency procedures

Wear suitable goggles, gloves and protective clothing.

##### 6.2 - Environmental precautions

Do not flush spillage to drain and prevent from entering natural watercourses.  
For waste disposal refer to section 13

##### 6.3 - Methods and materials for containment and clean up

Contain spillage, absorb in earth or sand and shovel into suitable containers

##### 6.4 - Reference to other sections

For further information, please refer to sections 7 and 8

#### 7 - Handling and storage

##### 7.1 - Precautions for safe handling

Do not handle wet product with bare hands. Handling of dried products can be a source of dust emission and therefore the processes should be designed to limit the amount of handling. Whenever possible, handling should be carried out under controlled conditions (i.e., using dust exhaust system). Regular good housekeeping will minimise secondary dust dispersal.

##### 7.2 - Conditions for safe storage

Store in original packaging.  
Avoid damaging the packaging.  
Use of plastic bucket is recommended.

##### 7.3 - Specific end use

Please refer to your local Morgan Thermal Ceramics' supplier.

## 8 - Risk Management Measures / Exposures Controls / Personal Protection

### 8.1 - Control parameters

Removing dried material after use may generate respirable dust.

Industrial hygiene standards and occupational exposure limits vary between countries and local jurisdictions. Check which exposure levels apply to your facility and comply with local regulations. If no regulatory dust or other standards apply, a qualified industrial hygienist can assist with a specific workplace evaluation including recommendations for respiratory protection.

Examples of national OELs (November 2014) are given in the table below. Additional references and/or updates can be found on the following websites:

[http://www.dguv.de/ifa/en/gestis/limit\\_values](http://www.dguv.de/ifa/en/gestis/limit_values)

<http://osha.europa.eu/en/publications/reports/548OELs/view>

COUNTRY	Total Dust (mg/m <sup>3</sup> )	Resp Dust (mg/m <sup>3</sup> )	Quartz (mg/m <sup>3</sup> )	Cristobalite (mg/m <sup>3</sup> )	Source
Denmark	10	5	0.10	0.05	Direktoratet for Arbejdstilsynet
Finland	No limit	No limit	0.20	0.10	National Board of Labour Protection
France	10	5	0.10	0.05	Ministère du Travail
Germany*	10	1.25	No limit	No limit	Bundesministerium für Arbeit
Italy	10	3	0.025	0.025	Associazione Italiana Degli Igienisti Industriali
Netherlands	10	5	0.075	0.075	Ministerie van Sociale Zaken en Werkgelegenheid
Norway	10	5	0.10	0.05	Direktoratet for Arbejdstilsynet
Poland	No limit	No limit	0.30	0.30	
Romania	10	10	0.10	0.05	Government Decision n° 1093/2006 regarding carcinogenic agents
Spain	10	3	0.10	0.05	ITC/2585/2007
Sweden	10	5	0.10	0.05	National Board of Occupational Safety and Health
UK	10	4	0.10	0.10	EH40/2005

\*Germany does not have a limit for crystalline silica, exposure must be minimised as far as possible.

### Information on monitoring procedures

United Kingdom

MDHS 14/4 - "General methods for sampling and gravimetric analysis of respirable, thoracic and inhalable aerosols"

NIOSH

NIOSH 0500 "Particulates not otherwise regulated, total"

NIOSH 0600 "Particulates not otherwise regulated, respirable"

### 8.2 - Exposure controls

#### 8.2.1 APPROPRIATE ENGINEERING CONTROLS

Review your applications in order to identify potential sources of dust exposure.

Local exhaust ventilation, which collects dust at source, can be used. For example down draft tables, emission controlling tools and materials handling equipment.

Keep the workplace clean. Use a vacuum cleaner. Avoid brushing and compressed air.

If necessary, consult an industrial hygienist to design workplace controls and practices.

The use of products specially tailored to your application(s) will help to control dust. Some products can be delivered ready for use to avoid further cutting or machining. Some could be pre-treated or packaged to minimise or avoid dust release during handling.

Consult your supplier for further details

#### 8.2.2 - Personal Protective Equipment

Skin protection:

Use of gloves and work clothes is recommended.

Soiled clothes should be cleaned before being taken off (e.g. use vacuum cleaning, not compressed air).

Eye protection:

As necessary wear goggles or safety glasses with side shields.

Respiratory protection:

For dust concentrations below the exposure limit value, RPE is not required but FFP2 respirators may be used on a voluntary basis.

For short-term operations where excursions are less than ten times the limit value use FFP2 respirators.

In case of higher concentrations or where the concentration is not known, please seek advice from your company and/or local Thermal Ceramics' supplier.

#### INFORMATION AND TRAINING OF WORKERS

Workers should be trained on good working practices and informed on applicable local regulations

#### 8.2.3 - Environmental Exposure Controls

Refer to local, national or European applicable environmental standards for release to air water and soil.

For waste, refer to section13

## 9 - Physical and chemical properties

Information on basic physical and chemical properties	Not applicable
State	Black Paste
Colour	Black
Odour	None
Odour threshold	Not Applicable
pH	10 - 11
Melting point/freezing point	> 1200°C
Initial boiling point and boiling point range	Not applicable
Flash point	Not applicable
Evaporation rate	Not Applicable
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	Not applicable
Vapour density	Not Applicable
Relative density	1 - 2 g/cm <sup>3</sup>
Solubility(ies)	Not applicable
Partition co-efficient: n-octanol/water	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not Applicable
Viscosity	Not Applicable
Other safety information	No further relevant information available.
Particle Characteristics	Not applicable
Explosive properties	Not applicable
Oxidising properties	Not applicable

## 10 - Stability and Reactivity

### 10.1 - Reactivity

The product is stable

### 10.2 - Chemical Stability

The product is inorganic, stable and inert

### 10.3 - Possibility of Hazardous Reactions

None

### 10.4 - Conditions to Avoid

Please refer to handling and storage advice in Section 7

### 10.5 - Incompatible Materials

None

### 10.6 - Hazardous decomposition products

Upon heating above 900°C for sustained periods, this amorphous material begins to transform to mixtures of crystalline phases. For further information please refer to Section 16.

## 11 - Toxicological information

### Toxicokinetics, metabolism and distribution

#### 11.1.1 BASIC TOXICOKINETICS

Exposure is predominantly by inhalation or ingestion, no chronic respiratory health effects are associated with any component in this mixture. Available toxicological information is as follows;

#### 11.1.2 HUMAN TOXICOLOGICAL DATA

No human data available

#### 11.1 - Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### ACUTE TOXICITY

Lethal dose 50 % (LD50) / lethal concentration 50% (LC50): N.A.

##### CHRONIC TOXICITY

No effects reported

## 12 - Ecological information

### 12.1 - Toxicity

These products are inert materials that remain stable overtime.  
No adverse effects of this material on the environment are anticipated.

### 12.2 - Persistence and degradability

Not established

### 12.3 - Bioaccumulative potential

Not established

### 12.4 - Mobility in soil

No information available

### 12.5 - Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulative (vPvB).

### 12.6 - Endocrine Disrupting Properties

No additional information available

### 12.7 - Other adverse effects

### 13 - Disposal Considerations

#### 13.1 - Disposal Considerations

### 14 - Transport information

#### 14.1 - Transport information

##### 14.1. UN number

Not Applicable

##### 14.2. UN proper shipping name

Not Applicable

##### 14.3. Transport hazard class(es)

Not Applicable

##### 14.4. Packing group

Not Applicable

##### 14.5. Environmental hazards

Not Applicable

##### 14.6. Special precautions for user

Not Applicable

##### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not Applicable

### 15 - Regulatory information

#### 15.1 - Regulatory information

This SDS has been prepared in accordance with WHO GHS rev. 6 requirements. Where applicable, local regulations have been followed.

### 16 - Other Information

#### 16.1 - ADDITIONAL INFORMATION AND PRECAUTIONS TO BE CONSIDERED UPON REMOVAL OF AFTER SERVICE MATERIAL

#### 16.2 - uses advised against

#### 16.3 - NOTE

This Safety Data Sheet was originally produced in English and has subsequently been translated in to other languages; whilst every effort has been made to make this an accurate translation, please be aware that technical terms do not always translate correctly. The English version should always be considered as the reference version.

#### 16.4 - Further Information

##### FURTHER INFORMATION

Further information can be found on

<http://www.morganthermalceramics.com/>

<http://www.ecfia.eu/>

<http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/workplace-exposure-standards-airborne-contaminants>

#### 16.5 - Technical Datasheets

#### 16.6 - Revision Summary

Content checked and revision date updated

#### 16.7 - NOTICE

The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.