

## SAFETY DATASHEET

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

SDS Number: 604      Date of first issue: 01 March 1992      Date of last revision: 15 March 2016

### 1 - Identification of product

#### 1.1 - Identification of Product

**Tradenames:** **Blakite**, Blakite KC, Blakite SM, JM2600, JM3300, Superblakite, Vibrotek 50R, Y-Tite,

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

**U.K.**                      THERMAL CERAMICS LIMITED  
 Tebay Road, Bromborough  
 Wirral, Merseyside CH62 3PH  
 Tel. : +44 (0) 151 334 4030  
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#### 1.4 - Emergency information

Tel: + 44 (0) 7931 963 973  
 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

### 3 - Composition / Information On Ingredients

#### Description

These products are very high temperature mortars.

#### Composition

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

#### composition additional information

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

## 4 - First-Aid measures

### 4.1 - Description of 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.

#### first aid additional information

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	1	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

<b>Information on basic physical and chemical properties</b>	Not applicable
<b>Appearance</b>	Black Paste
<b>Odour</b>	None
<b>Odour threshold</b>	Not Applicable
<b>pH</b>	10 - 11
<b>Melting point/freezing point</b>	> 1200°C
<b>Initial boiling point and boiling point range</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not Applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/lower flammability or explosive limits</b>	Not applicable
<b>Vapour pressure</b>	Not applicable
<b>Vapour density</b>	Not Applicable
<b>Relative density</b>	1 - 2 g/cm <sup>3</sup>
<b>Solubility(ies)</b>	Not applicable
<b>Partition co-efficient: n-octanol/water</b>	Not applicable
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	Not Applicable
<b>Viscosity</b>	Not Applicable
<b>Explosive properties</b>	Not applicable
<b>Oxidising properties</b>	Not applicable

## 10 - Stability and Reactivity

### 10.1 - Reactivity

The material is stable and non reactive.

### 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 toxicological effects

#### ACUTE TOXICITY

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

#### CHRONIC TOXICITY

No effects reported

### Irritant properties

## 12 - Ecological information

### a - Ecotoxicity (aquatic and terrestrial, where available)

#### 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 - Other adverse effects

No additional information available

## 13 - Disposal Considerations

### 13.1 - Waste treatment methods

Waste from these materials may be generally disposed off at a landfill, which has been licensed for this purpose. Please refer to the European list (Decision N° 2000/532/CE as modified) to identify your appropriate waste number, and insure national and/or regional regulations are complied with.

Unless wetted, such a waste is normally dusty and so should be properly sealed in containers for disposal. At some authorised disposal sites, dusty waste may be treated differently in order to ensure they are dealt with promptly to avoid them being windblown. Check for any national and/or regional regulations, which may apply.

## 14 - Transport information

### Transport

#### 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 - Safety health and environment regulations/legislation specific for the substances or mixtures

EU regulations:

- Regulation (EC) No 1907/2006 dated 18th December 2006 on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Regulation (EC) No 1272/2008 dated 20th January 2009 on classification, labelling and packaging of substances and mixtures (OJ L 353)
- Commission regulation (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.
- The 1st Adaptation to Technical Progress (ATP) to Regulation (EC) No 1272/2008 enters into force on 25 September 2009. It transfers the 30th and 31st ATPs of Directive 67/548/EEC to the Regulation (EC) No 1272/2008.

#### PROTECTION OF WORKERS

Shall be in accordance with several European Directives as amended and their implementations by the Member States:

- a) Council Directive 89/391/EEC dated 12 June 1989 "on the introduction of measures to encourage improvements in the safety and health of workers at work" (OJEC (Official Journal of the European Community) L 183 of 29 June 1989, p.1).
- b) Council Directive 98/24/EC dated 7 April 1998 "on the protection of workers from the risks related to chemical agents at work" (OJEC L 131 of 5 May 1998, p.11).

#### OTHER POSSIBLE REGULATIONS

Member States are in charge of implementing European Directives into their own national regulation within a period of time normally given in the Directive. Member States may impose more stringent requirements. Please always refer to any national regulation.

### 15.2 - Chemical Safety Assessment

Chemical Safety Reports have been requested from suppliers, as soon as this information is available it will be shared with downstream users.



## 16 - Other Information

### Useful references

(the directives which are cited must be considered in their amended version)

- Council Directive 89/391/EEC dated 12 June 1989 "on the introduction of measures to encourage improvements in the safety and health of workers at work" (OJEC L 183 of 29 June 1989, p.1).
- Regulation (EC) No 1907/2006 dated 18th December 2006 on registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Regulation (EC) No 1272/2008 dated 20th January 2009 on classification, labelling and packaging of substances and mixtures (OJ L 353)
- Commission Directive 97/69/EC of 5 December 1997 adapting to technical progress for the 23rd time Council Directive 67/548/EEC (OJEC of 13 December 1997, L 343).
- Council Directive 98/24/EC of 7 April 1998 "on the protection of the health and safety of workers from the risks related to chemical agents at work" (OJEC L 131 of 5 May 1998, p11).

### Precautionary measures

Additional information and precautions to be considered upon removal of after service material

Continuous use of these products at temperatures above 900°C may, as with many other refractories, lead to the formation of cristobalite (a type of crystalline silica).

Please refer to sections 2, 11 and to national regulation on crystalline silica.

High concentrations of dusts may be generated when after-service products are mechanically disturbed during operations such as wrecking. Therefore Morgan Thermal Ceramics recommends:

- a) control measures are taken to reduce dust emissions;
- b) all personnel directly involved wear an appropriate respirator to minimise exposure; and
- c) Compliance with local regulatory limits.

### CARE Program

#### Uses advised against

#### Website

For more information connect to:

The Morgan Thermal Ceramics' website: (<http://www.morganthermalceramics.com/>)

Or ECFIA's website: (<http://www.ecfia.eu>)

### Revision Summary

#### Technical data sheets

For more information on individual products please see the relevant technical data sheet listed below:

Product Datasheet Code

### Other Information

#### NOTICE:

The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However safe as provided by law, 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 authorisation given or implied to practice any patented invention without a licence. 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 (however, this shall not act to restrict the vendor's potential liability for negligence or under statute).