

## SAFETY DATA SHEET

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

SDS Number: 2800 Date of first issue: 01 December 2002 Date of last revision: 21 February 2022

### 1 - Identification of product

#### 1.1 - Identification of Product

**Tradenames:** Morgan 750 Patch, Morgan Zircon Patch,

The above-mentioned products are prepared powders.

#### 1.2 - Use of Product

These products are monolithic refractories used in lining industrial furnaces, high temperature processing, kilns and metal melting applications

#### 1.3 - Identification of Company

**U.K.** THERMAL CERAMICS LIMITED  
Tebay Road, Bromborough  
Wirral, Merseyside CH62 3PH  
Tel. : +44 (0) 151 334 4030  
Fax : +44 (0) 151 334 1684

#### Website

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

#### 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  
This mixture is classified as an eye irritant category 2 and a skin irritant category 2

#### 2.2 - Labelling Elements

CLASSIFICATION AND LABELLING ACCORDING TO DIRECTIVE 67/548/EEC  
Irritant Xi  
R41 Risk of serious damage to eyes.

CLASSIFICATION AND LABELLING ACCORDING TO REGULATION (EC) No. 1272/2008

Classification: Eye irritation category 2, skin irritation category 2.  
Hazard pictogram: GHS07  
Signal Word: Warning.  
Hazard assessment: H315: Causes skin irritation  
H319: Causes serious eye irritation

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

As received, these products are damp granular powders with no free-running liquid. If handled without precautions, a temporary irritation of the skin, eyes and upper respiratory system may result.

These products contain a small quantity of ortho-phosphoric acid and could cause limited pollution to water sources.

### 3 - Composition / Information On Ingredients

These products are ready mixed, phosphate bonded products for installing by ramming.

COMPONENT	%	CAS Number	Index number	REACH Registration Number
Zirconium silicate	35-85	EINECS No. 239-019-6	Not Applicable	Not yet available
Alumina	0-65	EINECS No. 215-691-6	Not Applicable	Not yet available
Orthophosphoric Acid	5-10	EINECS No. 231-633-2	Not Applicable	Not yet available

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.

If symptoms persist, seek medical advice.

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

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

## **5 - Fire-fighting measures**

### **5.1 - Extinguishing media**

Non-combustible products. Fire protection class: 0

Packaging and surrounding materials could be combustible.

Use extinguishing agent suitable for surrounding combustible materials.

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

### **5.3 - Advice for firefighters**

## **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**

## **7 - Handling and storage**

### **7.1 - Precautions for safe handling**

Do not handle wet product with bare hands. The process or processes should be designed to limit the amount of handling. Regular good housekeeping will minimise secondary dispersal.

### **7.2 - Conditions for safe storage**

These products should be kept dry and cool, and containers should be re-sealed after use.  
Avoid damaging the packaging.

### **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

These materials are stable and non-hazardous as received and during use.  
Dust may be generated on wrecking or if machining is carried out.

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 (December 2010) are given in the table below. Additional references and/or updates can be found on the following websites:

COUNTRY	EXPOSURE LIMIT*				SOURCE
	Respirable Dust	Crystalline silica	Quartz	Cristobalite	
Germany	3 mg/m <sup>3</sup>				TRGS 900
France	5 mg/m <sup>3</sup>		0.10 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	Décret 97-331 du 10 avril 1997
U.K.	4 mg/m <sup>3</sup>	0.30 mg/m <sup>3</sup>			HSE – EH40

\* Gravimetric concentrations of respirable dust – 8-hour time weighted average.

### Information on monitoring procedures

#### 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	Not applicable
Colour	Not applicable
Odour	None
Odour threshold	Not applicable
pH	2
Melting point/freezing point	> 1700°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	-
Solubility(ies)	< 9%
Partition co-efficient: n-octanol/water	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Viscosity	Not applicable
Particle Characteristics	Not applicable
Explosive properties	Not applicable
Oxidising properties	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

Hot damp storage. Strong alkalis.

### 10.5 - Incompatible Materials

None

### 10.6 - Hazardous decomposition products

None

## 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 EFFECTS OF ORTHOPHOSPHORIC ACID

Liquid and mist causes severe irritation and corrosion to skin, eyes, respiratory and digestive tracts. May cause corneal damage, which is unlikely to be permanent, provided prompt removal by washing is carried out. Corrosive to the skin, causing ulceration and possibly dermatitis. Causes vomiting and stomach pains when ingested. Possible exposure to vaporised mists or decomposition fumes may damage the nasal passages and teeth.

##### CHRONIC EFFECTS

None known.

## 12 - Ecological information

### 12.1 - Toxicity

As supplied, the product is stable but when the material is disposed of in a landfill, then the phosphoric acid present can be dissolved out and converted to phosphates.

### 12.2 - Persistence and degradability

### 12.3 - Bioaccumulative potential

### 12.4 - Mobility in soil

### 12.5 - Results of PBT and vPvB assessment

### 12.6 - Endocrine Disrupting Properties

### 12.7 - Other adverse effects

## 13 - Disposal Considerations

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

Not classified as dangerous goods under relevant international transport regulations (ADR, RID, IATA, IMDG, ADN).

Definitions:

ADR Transport by road, council directive 94/55/EC  
IMDG Regulations relating to transport by sea  
RID Transport by rail, Council Directive 96/49/EC  
ICAO/IATA Regulations relating to transport by air  
ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

## 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)
- Annex of Regulation (EU) 2015/830
- 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.

### 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

(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)
- 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).

High concentrations of fibres and other 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.

For more information connect to:

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

Or ECFA's website: (<http://www.ecfa.eu>)

### Revision Summary

General Update of SDS to comply with REACH Regulation, changes to sections 1-16

### Technical data sheets

For more information on individual products please see the relevant technical data sheet available from <http://www.morganthermalceramics.com/downloads/datasheets>

### 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).