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

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
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

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 is 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^3				TRGS 900
France	5 mg/m^3		0.10 mg/m^3	0.05 mg/m^3	Décret 97-331 du 10 avril 1997
U.K.	4 mg/m^3	0.30 mg/m^3			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 appicable
Colour	Not appicable
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
Other safety information	No further relevant information available.
Particle Characteristics	Not appicable
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

13.1 - Disposal Considerations

To prevent waste materials from becoming airborne during waste storage, transportation and disposal, a covered container or plastic bagging is recommended.

For Australia, waste from these materials should be considered as hazardous waste and local waste authorities should be contacted for correct disposal methods.

For other countries, waste from these materials (even after use above 900°C) is not classified as hazardous waste and may generally be disposed of at a normal tipping site which has been licensed for the disposal of industrial waste. Taking into account any possible contamination during use, which may be classified as hazardous, expert guidance should be sought.

Such a waste is normally dusty (unless wetted) and so should be properly bagged and clearly labelled for disposal. At some tip sites dusty waste may be treated differently in order to ensure they are dealt with promptly and to avoid them being windblown. Check for national and /or regional regulations to identify all applicable disposal requirements.

14 - Transport information

14.1 - Transport information

Not classified as dangerous goods under relevant international transport regulations (Australian DG Code, ADR, RID, IATA, and IMDG).
Ensure that dust is not windblown during transportation.

UN Number None Allocated
DG Class None Allocated
Subsidiary risk(s) None Allocated
Packing Group None Allocated
Hazchem Code None Allocated

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 - 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

TECHNICAL DATA SHEETS
For more information on individual products please see the technical data sheet section at www.morganthermalceramics.com

16.6 - Revision Summary

Amendments to sections 2, 3, 4, 5, 6, 8, 9, 12, 14, 15 and 16 to comply with new guidelines

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.