



## SAFETY DATA SHEET

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

SDS Number: 1002 Date of first issue: 15 July 2013 Date of last revision: 21 February 2022

### 1 - Identification of product

#### 1.1 - Identification of Product

**Tradenames:** Cerapreg,

This product contains ethylene glycol  
EC Number: 203-473-3 of Annex VI  
CAS Number: 107-21-1  
Index Number: 603-027-00-1

#### 1.2 - Use of Product

This product is used to produce a hard surface finish

#### 1.3 - Identification of Company

##### IDENTIFICATION OF THE MANUFACTURER/SUPPLIER

Murugappa Morgan Thermal Ceramics Ltd.,  
Plot No: 26 & 27, SIPCOT Industrial complex,  
Ranipet, Vellore District, Tamil Nadu, India  
Pin: 632403

Murugappa Morgan Thermal Ceramics Ltd.,  
Plot No: 681, Motibhojan Village,  
Sanand-Kalol state Highway, Kalol Taluk,  
Gandhi Nagar District, Gujarat, India

#### 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 Classification of the substance/mixture  
This mixture is not classified

2.1.1 Classification according to regulation (EC) No 1272/2008  
Ethylene Glycol is classified as follows: Acute Toxicity, Oral (Category 4)

#### 2.2 - Labelling Elements

Not applicable

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

Chronic Respiratory Health Effects for Ethylene Glycol  
NIOSH recently described evidence that ethylene glycol has potential reproductive hazards by inhalation of ethylene glycol mist

### 3 - Composition / Information On Ingredients

This product is a hardener for refractories

| COMPONENT        | %     | CAS Number     | REACH Registration Number | Hazard Classification according to CLP |
|------------------|-------|----------------|---------------------------|--|
| Water            | 70-90 | 7732-18-5      | Not yet available         | Not classified                         |
| Aluminosilicate  | 10    | Not Applicable | Not yet available         | Not classified                         |
| Colloidal Silica | 10    | 7631-86-9      | 01-2119379499-16          | Not classified                         |
| Ethylene glycol  | 0-2   | 107-21-1       | 01-2119456816-28          | Acute Tox 4 (H302)                     |

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

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### 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

When material is wet use gloves, boots and rubber protection clothes when cleaning up  
Where abnormally high dust concentrations occur, provide workers with appropriate protective equipment as detailed in section 8.

### 6.2 - Environmental precautions

Prevent further dust dispersion for example by damping the materials.  
Do not flush spillage to drain and prevent from entering natural watercourses.  
Check for local regulations, which may apply

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

Pick up large pieces and use a vacuum cleaner.  
If brushes are used, ensure that the area is wetted down first.  
Do not use compressed air for clean up.  
Do not allow to become windblown.

### 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

Handling 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 in a dry area.  
Avoid storage below +5°C.  
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

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.

| COUNTRY     | Total Dust (mg/m3) | Resp Dust (mg/m3) | Ethylene Glycol (mg/m3) | Source  |
|-------------|--------------------|-------------------|-------------------------|---|
| Austria     | 10                 | 6                 | No limit                | Grenzwertverordnung   |
| Belgium     | 10                 | 3                 | 52                      | Valeurs limites d'exposition professionnelle – VLEP/ Grenswaarden voor beroepsmatige blootstelling – GWBB |
| Denmark     | 10                 | 5                 | 10                      | Grænseværdier for stoffer og materialer   |
| Finland     | No limit           | No limit          | 50                      | Finnish Ministry of Social Affairs and Health   |
| France      | 10                 | 5                 | 52                      | Institut National de Recherche et de Sécurité   |
| Germany*    | 10                 | 1.25              | 26                      | TRGS 900  |
| Hungary     | No limit           | No limit          | 53                      | <i>EüM-SZCSM rendelet</i>   |
| Ireland     | 10                 | 4                 | 10                      | HAS – Ireland   |
| Italy       | 10                 | 3                 | 52                      | Uses EU values  |
| Luxembourg  | 10                 | 6                 | No limit                | Agents Chimiques, Cancérigènes Ou Mutagènes Au Travail  |
| Netherlands | 10                 | 5                 | 10                      | SER   |
| Norway      | 10                 | 5                 | 10                      | Veiledning om administrative normer for forurensning i arbeidsatmosfære                                   |
| Poland      | No limit           | No limit          | 15                      | Dziennik Ustaw 2010   |
| Spain       | 10                 | 3                 | 52                      | INSHT   |
| Sweden      | 10                 | 5                 | 25                      | AFS 2005:17   |
| Switzerland | 10                 | 6                 | 26                      | SUVA - <i>Valeurs limites d'exposition aux postes de travail</i>  |
| UK          | 10                 | 4                 | 10                      | EH40/2005   |

#### 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>State</b>   | White liquid (clear to opalescent)         |
| <b>Colour</b>  | Not applicable                             |
| <b>Odour</b>   | None                                       |
| <b>Odour threshold</b>                                       | Not Applicable                             |
| <b>pH</b>  | 9.7  |
| <b>Melting point/freezing point</b>                          | Not determined                             |
| <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>                                      | UNKNOWN                                    |
| <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>Other safety information</b>                              | No further relevant information available. |
| <b>Particle Characteristics</b>                              | Not applicable                             |
| <b>Explosive properties</b>                                  | Not applicable                             |
| <b>Oxidising properties</b>                                  | 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

None

## 11 - Toxicological information

### Toxicokinetics, metabolism and distribution

Acute Toxicity of Ethylene Glycol

Lethal dose 50 % (LD50) / lethal concentration 50% (LC50): Oral 4700mg/kg / lethal concentration 50% (LC50): Inhalation >200mg/m<sup>3</sup>: 4H

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

#### EXPERIMENTAL STUDIES FOR ETHYLENE GLYCOL

Ethylene glycol toxicity by ingestion includes kidney effects with oxalate crystal deposition and liver damage. By inhalation exposure, lung changes and irritation of mucosal surfaces occurred in rats. A slight effect on reproduction was seen in mice administered 2000 mg/kg/day in their drinking water. During the studies with pregnant animals where high doses of ethylene glycol have been administered, foetal and maternal toxicity was observed.

Acute Toxicity of Ethylene Glycol

Lethal dose 50 % (LD50) / lethal concentration 50% (LC50): Oral 4700mg/kg / lethal concentration 50% (LC50): Inhalation >200mg/m<sup>3</sup>: 4H

## 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

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

#### 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

The International Agency for Research on Cancer (IARC) confirmed in October 2001 that Group 2B (possible human carcinogen based on sufficient evidence of carcinogenicity in animals but inadequate evidence in humans) continues to be the appropriate classification for refractory ceramic fibre.

#### INFORMATION FOR RCF USERS EXPORTING TO EUROPE

Under European Regulation REACH there are additional obligations for importers of RCF containing products

RCF are classified in the European Union as a carcinogenic substance CLP 1B. On the 13th of January 2010 ECHA has updated the candidate list for authorisation (Annexe XV of the REACH regulation) and has added 14 new substances in this list including Refractory Ceramic Fibres and zirconia Refractory Ceramic Fibres.

As a consequence, EU (European Union) or EEA (European Economical Area) suppliers of articles which contain Refractory Ceramic Fibres and zirconia Refractory Ceramic Fibres in a concentration above 0.1% (w/w) have an obligation to provide information, available to them, to their customers or upon a request from an end user, within 45 days of the receipt of the request, on the supply of RCF containing articles. This information must ensure safe use of the article and as a minimum contain the name of the substance. See section 16 for internet reference containing further information.

## 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

Update to section 8.

#### 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.