

SAFETY DATA SHEET

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

SDS Number: 1001 Date of first issue: 01 February 1999 Date of last revision: 21 February 2022

1 - Identification of product

1.1 - Identification of Product

Tradenames: Batifix G, FireMaster Glue,

The above mentioned products are refractory glues.

1.2 - Use of Product

These products are used as jointing for binding fibre boards.

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

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

This product is a mixture of Alumino Silicate and Siliceous components in a water base.

| COMPONENT | % | CAS Number | REACH Registration Number | Hazard Classification according to CLP |
|------------------------|--------|----------------|---------------------------------|---|
| Sodium silicate MR>3.2 | 20-50 | 1344-09-8 | 01- 2119448725-31 | Not classified |
| Alumino silicate | 10-25 | Not Applicable | Not yet available | Not classified |
| Amorphous silica | 10-25 | 7631-86-9 | 01- 2119379499-16 | Not classified |
| Organic charge | 2.5-10 | Not Applicable | Not yet available | Not classified |
| Water | < 50 | 7732-18-5 | Not yet available | Not classified |

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

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

4 - First-Aid measures

Skin

May cause drying of the skin, Wash with mild soap and running water.

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

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

Aluminium, Zinc, Tin and its alloys as reaction evokes hydrogen gas which can form explosive mixture in the air.

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

Remove bulk into marked container, Wash excess residue with large amounts of water.

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

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 in a dry area. Avoid freezing conditions and excessive heat, as properties may be impaired. Avoid damaging the packaging. Material supplied in plastic bucket.

7.3 - Specific end use

Please refer to your local Morgan Thermal Ceramics' supplier.

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.

| Austria 10 6 Grenzwerteverordnung Belgium 10 6 Grenzwerteverordnung Belgium 10 3 Valeurs limites d'exposition professionnelle – VLEP/ Grenswaarden voor beroepsmatige blootstelling – GWBB Denmark 10 3 Grenswaarden voor beroepsmatige blootstelling – GWBB Denmark 10 5 Grænseværdier for stoffer og materialer Finland No limit No limit Finnish Ministry of Social Affairs and Health France 10 5 TRGS 900 Hungary No limit No limit EüM-SZCSM rendelet Ireland 10 4 HAS – Ireland Italy 10 3 Uses EU values Luxembourg 10 6 Cancérigènes Ou Mutagènes Au Travail Netherlands 10 5 SER Norway 10 5 AFS 2005:17 Sweden 10 5 AFS 2005:17 Sweden 10 5 AFS 2005:17 Switzerland 10 6 d'exposition aux postes de travail | COUNTRY | | Resp Dust | Source |
|--|-------------|----------|-----------|---|
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| UK 10 4 EH40/2005 | | - | | d'exposition aux postes de travail |
| | UK | 10 | 4 | EH40/2005 |

Information on monitoring procedures

United Kingdom

MDHS 14/4 - "General methods for sampling and gravimetric analysis of respirable, thoracic and inhalable aerosols" MDHS 101 - "Crystalline silica in respirable airborne dusts"

NIOSH

NIOSH 0500 "Particulates not otherwise regulated, total" NIOSH 0600 "Particulates not otherwise regulated, respirable" NIOSH 7500 " Silica, Crystalline, by XRD (filter redeposition)"

8.2 - Exposure controls

8.2.1 Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

8.2.2 - Personal Protective Equipment

Skin Protection Use of gloves and work clothes is recommended.

Eye Protection Wear safety glasses

Respiratory Protection Use appropriate respiratory protective equipment (RPE) if necessary.

Information and Training of workers

Workers should be informed on:
The requirements for the use of protective equipment and clothing.

Workers should be trained on:

The proper use of protective equipment

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 |
|---|
| State |
| Colour |
| Odour |
| Odour threshold |
| рН |
| Melting point/freezing point |
| Initial boiling point and boiling point range |
| Flash point |
| Evaporation rate |
| Flammability (solid, gas) |
| Upper/lower flammability or explosive limits |
| Vapour pressure |
| Vapour density |
| Relative density |
| Solubility(ies) |
| Partition co-efficient: n-octanol/water |
| Auto-ignition temperature |
| Decomposition temperature |
| Viscosity |
| Other safety information |
| Particle Characteristics |
| Explosive properties |
| Oxidising properties |
| 10 - Stability and Reactivity |
| |

Not Applicable White paste White None Not Applicable >8 Not determined Not applicable Slight Not applicable Not applicable Not Applicable Not Applicable No further relevant information available. Not appicable Not applicable Not applicable

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

Aluminium, Zinc, Tin and their alloys

10.5 - Incompatible Materials

Aluminium and its alloys

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 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

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

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

This cement is used as cement for Ceramic fibre. Optimal safety equipment for these fibre products should be used when working with the cement.

High concentrations of dust may be generated when after-service products are mechanically disturbed during operations such as wrecking, it is recommended that: a)- control measures are taken to reduce dust emissions and b)- all personnel directly involved wear an adapted respirator to minimise exposure and comply with local regulatory limits.

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 <u>http://www.morganthermalceramics.com/</u> http://www.ecfa.eu/ http://www.ecfa.eu/ http://echa.europa.eu/chem_data/authorisation_process/candidate_list_obligations_en.asp

16.5 - Technical Datasheets

16.6 - Revision Summary

New Safety Data Sheet

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.