STANDARD BORAX FRIT Safety Data Sheet

In compliance with Regulation (EC)1907/2006(REACH) Date of issue: 24/01/2010 Revision date: 19/08/2014

SECTION 1: Identification of the substance/mixture and of the company/undertaking.

1.1. Product identifier

Product form : Substance

Product name : Standard Borax Frit 1047 / 1047K

REACH registration No. : Exempted in accordance with Annex V.7

1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. Relevant identified uses

Use of the substance/preparation:

Substance used as such, in formulation or in formulation of products such as:

- Glass
- Ceramics

1.2.2. Uses advised against

• None Full text of use descriptors: see section 16.

1.3. Details of the supplier of the safety data sheetKeramikosOudeweg 1532031 CC Haarlem1.4. Emergency telephone number 023–542 44 16

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SECTION 2: Hazards identification.

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Physical and chemical hazards: Not classified

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| Human health: Not classified |
|--|
| Environment: Not classified |
| Full text of H-phrases: see section 16 |
| Classification according to Directive 67/548/EEC or 1999/45/EC |
| Not classified |
| Full text of R-phrases: see section 16 |
| Adverse physicochemical, human health and environmental effects No additional information available. |
| 2.2. Label elements |
| Labelling according to Regulation (EC) No. 1272/2008 (CLP) No labelling |
| applicable. |
| 2.3. Other hazards |

SECTION 3: Composition/information on ingredients.

3.1. Substances

| Chemical name | CAS No. | EC-No. | % | Classification | Classification |
|---------------|------------|---------|-----|----------------|----------------|
| | | | | (67/548/EEC) | (1272/2008/EC) |
| | | | | | |
| | | 2660476 | | | |
| Ceramic Frit | 65997-18-4 | | 100 | Not classified | Not classified |
| | | • | | | |

Full text of R-, H- and EUH-phrases: see section 16

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SECTION 4: First aid measures.

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Inhalation: Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion: Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Skin contact: Wash skin with soap and water. Get medical attention if irritation persists after washing. Eye contact: Make sure to remove any contact lenses from the eyes before rising. Rinse eye with water immediately. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation: May cause coughing. Excessive exposure may cause symptoms of chronic lung disease Ingestion: The product is of low solubility in body fluids and it is likely to be of low acute toxicity Skin contact: The material is not a primary irritant but as with any abrasive powder it may give rise to minor irritation Eye contact: May cause physical irritation and inflammation

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically.

SECTION 5: Firefighting measures.

5.1. Extinguishing media Suitable extinguishing media:All extinguishing media allowed.Unsuitable extinguishing media:None.

5.2. Special hazards arising from the substance or mixture Fire hazard:

The product is not flammable. Explosion hazard: No explosive properties known. Reactivity: Stable under normal conditions of handling and storage.

5.3. Advice for firefighters Firefighting

instructions:

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire/ Prevent fire-fighting water from entering environment.

Protection during firefighting:

Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures General measures: Keep public away from danger area. See section 8.2. avoid dust production.

6.1.1. For non-emergency personnelEvacuate personnel to a safe area6.1.2. For emergency respondersEquip clean up crew with proper protection. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning upMethods for cleaning up: Collect dry material by wet sweeping or vacuum with efficient particulate filter

6.4. Reference to other sections

See section 8 and 13 for more information.

SECTION 7: Handling and storage.

7.1. Precautions for safe handling

Precautions for safe handling: Do not breathe dust. Wash hands plentifully and other exposed areas with water after handling. Remove contaminated clothing and shoes. Wash clothing before re-using.

Packagings: Even those that have been emptied will retain product residue. Always obey safety warnings and handle empty packages as if they were full. Avoid all contact with this substance.

Hygiene measures: When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Remove contaminated clothing and shoes.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in dry area. Keep away from food, drink and animal feeding stuffs.

Incompatible products: Strong bases. Strong acids

Incompatible materials: Remove all sources of ignition. Protect material from direct sunlight.

7.3. Specific end use(s)

The identified uses for this product are detailed in section 1.2

SECTION 8: Exposure controls/personal protection.

8.1. Control parameters

| Chemical Name | United Kingdom |
|---------------|---|
| Ceramic Frit | O.E.L.mg/m3 - total inhalable 10 respirable 5 |

Exposure Limits:

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust).

8.2. Exposure controls

Appropriate engineering controls: Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended.

Hand protection: Protective gloves and overalls are recommended for prolonged contact.

Eye protection: Safety Glasses

Skin and body protection: Wear closed protective clothing.

Respiratory protection: Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards prEN 140, 141, 143 or 149 should be worn. Environmental exposure controls: Avoid release to the environment.

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| SECTION 9: Physical and chemical; properties. | |
|---|---------------------------------|
| Physical state | Powder Off |
| Colour | White |
| Odour | odourless. |
| Odour threshold pH | Not applicable |
| Relative evaporation rate (butylacetate=1) | 9.3 |
| Melting point | No data available |
| Freezing point | 930°C* between 900°C and 1180°C |
| Boiling point | No data available |
| Flash point | No data available |
| Self ignition temperature | Not flammable |
| Decomposition temperature | Not applicable |
| Flammability (solid, gas) | No data available |
| Vapour pressure | Not flammable |
| Relative vapour density at 20 °C | Not applicable. |
| Specific Gravity | No data available |
| Log Pow | 2-3 |
| Log Kow | Not applicable |
| Viscosity, kinematic | Not applicable |
| Viscosity, dynamic | Not applicable |
| Explosive properties | Not applicable Not |
| Oxidising properties Explosive | explosive. |
| limits | No data available. |
| | Not applicable |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity.

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal conditions of handling and storage.

10.3. Possibility of hazardous reactions Not established.

10.4. Conditions to avoid Not relevant

10.5. Incompatible materials Not known

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10.6. Hazardous decomposition products Not known

| SECTION 11: Toxicological information. | | | | |
|--|--|--|--|--|
| 11.1. Information on toxicological | effects | | | |
| Acute toxicity | LD50 oral (rats) >2000mg/kg LD50 dermal not known | | | |
| | LD50 inhalation not known | | | |
| Skin corrosion/irritation Serious | Based on available data, the classification criteria are not met. | | | |
| eye damage/irritation | Based on available data, the classification criteria are not met. | | | |
| Respiratory or skin | Prolonged or repeated exposure above occupational exposure standards may cause fibrosis of the lungs | | | |

SECTION 12: Ecocological information.

12.1. Toxicity No additional information available.

12.2. Persistence and degradability The product is chemically stable and will persist in the environment

12.3. Bioaccumulative potential Not established.

12.4. Mobility in soil No additional information available.

12.5. Results of PBT and vPvB assessment No additional information available.

12.6. Other adverse effects Avoid release to the environment.

SECTION 13: Disposal considerations.

13.1. Waste treatment methods

Waste disposal recommendations:

Dispose of this material in a safe manner and in accordance with local authority requirements.

Ecology - waste materials:

Avoid release to the environment.

SECTION 14: Transport information.

14.1. UN number

The product is not covered by international regulation on transport of dangerous goods (IMDG, IATA, ADR/RID).

14.2. UN proper shipping name Not classified for transportation.

14.3. Transport hazard class(es) Not classified for transportation.

14.4. Packing group Not classified for transportation.

14.5. Environmental hazards

Other information: No environmental hazards known with this product.

14.6. Special precautions for user Not classified for transportation.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

15.1.1. EU Regulations

No REACH Annex XVII restrictions.

Contains no REACH candidate substance.

15.1.2. National Regulations Ensure all national/local regulations are observed. SDS Ref:- 19-08-2014

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EU Legislation:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and

Commission Regulations (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives

91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment.

No chemical safety assessment has been carried out.

SECTION 16: Other information.

Indication of changes:

The classification of the product (according to EU regulations) has been altered. Data sources:

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixturejs, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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