SECTION 1: IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier
Product name: GLASSBOND SAUEREISEN TEMPSEAL CEMENT PASTE NO3 MOD 18
REACH notes: Mixture - Substances contained in this product that are not classified as hazardous have been/will be registered for REACH at the appropriate time.

1.2 Relevant identified uses of the mixture and uses advised against.
Identified use: Potting and encapsulation for electrical insulation
Uses advised against: No other uses

1.3 Details of the supplier of the safety data sheet
Company identification: Glassbond (NW) Ltd
West Side Industrial Estate
Jackson Street
St. Helens
Merseyside WA9 3AT
United Kingdom

Telephone: +44(0)1744 730334
Fax: +44(0)1744 451661
Email: technical@glassbond.co.uk

1.4 Emergency telephone number: +44(0)1744 730334
(GMT, English spoken, Mon-Friday; 08.30-16.30)

SECTION 2: HAZARDS IDENTIFICATION*

2.1 Classification of the mixture: calculation method
2.1.1 Regulation (EC) No. 1272/2008(CLP)
Physical/Chemical: NOT CLASSIFIED
Human health: NOT CLASSIFIED
Environmental: NOT CLASSIFIED

2.1.2 Directive 1999/45/EC(DPD) Not classified

2.2 Label elements According to Regulation (EC) No. 1272/2008(CLP)
NONE
2.3 Other Hazards

PBT: This mixture contains no substances considered as PBT
vPvB: This mixture contains no substances considered as vPvB

2.4 Additional information

For full text of H/P phrases see section 16 if not written out in full above.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS*

3.1 Substances . (This product is a mixture according to EU legislation.)
3.2 Mixture of none hazardous inorganic powders

<table>
<thead>
<tr>
<th>Hazardous ingredient</th>
<th>% w/w</th>
<th>CAS N°</th>
<th>EC N°</th>
<th>REACH N°</th>
<th>CPL EC 1272/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium silicate</td>
<td>&lt;10</td>
<td>12627-14-4</td>
<td>235-730-0</td>
<td>Pre registered</td>
<td>H319: H315</td>
</tr>
</tbody>
</table>

3.3 Additional information

For full text of H/P phrases see section 16 if not written out in full above.
SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Immediately remove contaminated clothing, take care not to contaminate unaffected areas.

Inhalation: No emergency care anticipated, other than removal from exposure.

Eyes: Rinse immediately with running water for at least 15 minutes holding the eyelid open; consult an eye specialist.

Skin: Wash thoroughly with water and soap. If skin irritation or rash occurs get medical attention (P333+P313).

Ingestion: Immediately rinse the mouth with water and drink plenty of water. Obtain medical attention immediately, show this safety data sheet.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Eye contact - May cause temporary eye irritation.

Risks: No information available

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media:

Suitable: CO2 or dry chemical spray, water spray may help to reduce the temperature and extinguish flames for surrounding materials.

Unsuitable: High pressure water jet.

5.2 Special hazards arising from the mixture

The paste will not burn but the packaging is combustible.

5.3 Advice for fire fighters

Normal precautions are satisfactory.

Further information: The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing media must be disposed of in accordance with official regulation.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, protective equipment and emergency procedures

Use personal protective clothing.

6.2 Environmental Precautions

Prevent contamination of soil, drains and surface waters. Do not discharge contaminated water/ fire-fighting water into drains/ surface water/ groundwater.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent (e.g. sand). Collect spillage by scraping up. Dispose of material in accordance with official regulations.

6.4 Reference to other sections

For personal protection see section 8 and disposal section 13.
SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Advice on safe handling
For PPE see section 8. Contaminated clothing should not be allowed out of the workplace (P272). Wash contaminated clothing before reuse (P363)

Advice on protection against fire and explosion
Normal measures for preventive fire protection

7.2 Conditions for safe storage, including any incompatibilities
Keep containers tightly closed. The paste should be stored under cover, in a well ventilated, cool, dry place and away from direct sunlight or heat.
Protect from temperatures below : 4°C
Protect from temperatures above : 35 °C
Suitable storage materials : Original containers.
Higher temperatures will reduce the shelf life of the product.
Under normal conditions (21°C) a shelf life of 3 months or more is possible.

7.3 Specific end use(s)
As per section 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
8.1.1 Occupational Exposure Limits: OEL (Occupational Exposure Standard OES)

<table>
<thead>
<tr>
<th></th>
<th>TWA (mg/m³)</th>
<th>STEL ppm</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(EH40 UK) OES 8 hr</td>
<td>(EH40 UK)</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.1.2 Biological limit value
Not available

8.1.3 PNECs and DNELs
Not available

8.2 Exposure Controls
8.2.1 Appropriate engineering controls: Effective exhaust ventilation system

8.2.2 Personal Protective Equipment:

Eye/face Protection
Tightly fitting safety goggles (e.g. EN166)

Skin Protection/Hand
Gloves: Chemical resistant gloves (e.g. EN374) Butyl rubber: 0.7 mm coating thickness. Nitrile rubber: 0.4 mm coating thickness. Check with PPE manufacturer. Replace immediately if signs of degradation are observed. Wear closed work clothing.

Other

Respiratory Protection
Should not be required under normal working conditions

Hygiene measures
General industrial hygiene practice

8.2.3 Environmental exposure controls
No special environmental precautions required
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Paste</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>pH Value</strong></td>
<td>9-11</td>
</tr>
<tr>
<td><strong>Melting Point/Freezing Point</strong></td>
<td>0°C</td>
</tr>
<tr>
<td><strong>Initial Boiling Point/Range</strong></td>
<td>100°C</td>
</tr>
<tr>
<td><strong>Flashpoint °C</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Flammability (Solid/Gas)</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Upper Explosive Limit</strong></td>
<td>Not Available</td>
</tr>
<tr>
<td><strong>Lower Explosive Limit</strong></td>
<td>Not Available</td>
</tr>
<tr>
<td><strong>Vapour Pressure</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Vapour Density (Air=1)</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>White</td>
</tr>
<tr>
<td><strong>Odour Threshold ppm</strong></td>
<td>Not Available</td>
</tr>
<tr>
<td><strong>Relative Density</strong></td>
<td>2.5 g/ml</td>
</tr>
<tr>
<td><strong>Solvency in Water @ 20°C</strong></td>
<td>Partially soluble</td>
</tr>
<tr>
<td><strong>Partition Coefficient</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Auto Ignition Temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Decomposition Temperature °C</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Viscosity mPa.s @ 20°C</strong></td>
<td>17000-18000 cm/s</td>
</tr>
<tr>
<td><strong>Explosive Properties</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Oxidising Properties</strong></td>
<td>Not oxidising</td>
</tr>
</tbody>
</table>

9.2 Other information

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity                                 Stable under normal conditions.
10.2 Chemical Stability                         Stable under recommended storage and handling conditions.
10.3 Possibility of Hazardous reactions         No dangerous reaction known under conditions of normal use.
10.4 Conditions to Avoid                        No decomposition if stored and applied as directed.
10.5 Incompatible materials                    Acids. Reacts with aluminium, zinc and alloys of these metals with liberation of hydrogen, which is flammable and forms an explosive mixture with air.
10.6 Hazardous Decomposition Products.         Hydrogen, by reaction with metals.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects of the mixture

Acute toxicity                                  The poisonous effect of the product is caused by its basicity and not by substance-specific systemic characteristics. The LD50 value is of no practical significance due to the caustic effect of the product.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Toxicity Rats</td>
<td>mg/kg</td>
</tr>
<tr>
<td>LD50 Dermal Toxicity Rats</td>
<td>ml/kg</td>
</tr>
<tr>
<td>LC50 Inh. Toxicity in Rats</td>
<td>mg/kg</td>
</tr>
<tr>
<td>LD50 Oral Toxicity Rats</td>
<td>mg/kg</td>
</tr>
<tr>
<td>LD50 Dermal Toxicity Rabbits</td>
<td>mg/kg</td>
</tr>
<tr>
<td>LC50 Inh. Toxicity in Rats</td>
<td>mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation                    Contains component that may irritate skin
Serious eye damage / irritation               Contains component that may irritate eyes
Respiratory or skin sensitisation            Not classified
Germ cell mutagenicity                       Not classified
Carcinogenicity                              Not classified
Reproductive toxicity  Not classified
STOT SE (SINGLE exposure)  Not classified
STOT RE (REPEATED exposure)  Not classified
Aspiration hazard  Not classified

11.2 Other information
Health injuries are not known or expected under normal use.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity  NOT AVAILABLE

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Species</th>
<th>Concentration</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL50 Fish (96 hr)</td>
<td>&gt;100 Lithium silicate</td>
<td>mg/l</td>
<td></td>
</tr>
<tr>
<td>EC50 Invertibrates (48 hr)</td>
<td>&gt;800 Lithium silicate</td>
<td>mg/l</td>
<td></td>
</tr>
<tr>
<td>EL50 Algae (72 hr)</td>
<td></td>
<td>mg/l</td>
<td></td>
</tr>
</tbody>
</table>

Microorganisms/ effect upon activated sludge
EC50 Bacteria (3.0 hr)  mg/l  Activated sludge, domestic

12.2 Persistence and degradability
Decomposition: not applicable, inorganic product.

12.3 Bioaccumulative potential  Not available

12.4 Mobility
By appropriate dumping into biological water treatment plants no disruptive effect on the activity of activated sludge is to be expected.

12.5 Results of PBT and vPvB assessment
PBT: This mixture contains no substances considered as PBT
vPvB: This mixture contains no substances considered as vPvB

12.6 Other adverse effects
When introducing acid or alkaline products into sewage disposal plants, the waste water must not be above or below a pH value of 6 to 10, for a displacement of the pH-value may cause disturbances in sewers and biological sewage works. Local rules have priority.
SECTION 13: DISPOSAL CONSIDERATION

13.1 Waste treatment methods

The preparation must be disposed of by special means. Dispose by landfill via a licensed waste disposal contractor in accordance with local and national regulations.

Contaminated packaging should be emptied as far as possible, they can then be recycled after being thoroughly cleaned by a licensed contractor. Labels must not be removed from containers until they have been cleaned. Packaging materials that are not contaminated should be treated as household waste or as recycling material.

13.2 Additional information

The UK Environmental Protection (Duty of Care) regulations (EP) and amendments should be noted (United Kingdom)

Dispose of contents/container according to the end user disposal procedure (P501)

SECTION 14 - TRANSPORT INFORMATION

14.1 UN number

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>IMDG</th>
<th>IATA</th>
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<tbody>
<tr>
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</tr>
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</table>

14.2 Proper shipping name

<table>
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<th>RID</th>
<th>IMDG</th>
<th>IATA</th>
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</tr>
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</table>

14.3 Transport Hazard Class

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
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<tbody>
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</tr>
</tbody>
</table>

14.4 Packing Group

<table>
<thead>
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<th>RID</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
</tr>
</thead>
<tbody>
<tr>
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<td>NOT CLASSIFIED</td>
<td>NOT CLASSIFIED</td>
<td>NOT CLASSIFIED</td>
<td>NOT CLASSIFIED</td>
</tr>
</tbody>
</table>

14.5 Environmental hazards

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazar</td>
<td>NOT CLASSIFIED</td>
<td>NOT CLASSIFIED</td>
<td>NOT CLASSIFIED</td>
<td>NOT CLASSIFIED</td>
<td>NOT CLASSIFIED</td>
</tr>
</tbody>
</table>

14.6 Special Precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage
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 mixture
EU Legislation

Employment restrictions: Observe employment restrictions for young people, for child bearing mothers/ nursing and for women of child-bearing age.

15.2 Chemical Safety Assessment
Exposure scenarios are not required for this mixture because it is not classified as dangerous according to Directive 67/548/EEC and assessed to be not PBT/vPvB. No risk management measures as defined by REACH have been identified.

SECTION 16 : OTHER INFORMATION *

* SECTIONS REVISED 2,3,16  Supercedes date 03.11.2016
The Safety Data Sheets have been revised throughout in accordance with CLP/GHS requirements

Legend
PBT Persistent, Bioaccumulative and Toxic
vPvB very Persistent and very Bioaccumulative

Data sources Supplier information

Other hazard phrases listed in this MSDS

H319 Causes serious Eye Irritation Cat 2
H315 Causes skin irritation Skin Irr 2

Training advice General industrial hygiene practice.
Manul handling

Further information
This information relates only to the specific material designated and is to the best of the company’s knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to it’s accuracy, reliability or completeness and without acceptance of liability for loss or damage attributable to reliance thereon as conditions of use lie outside our control. Users should always carry tests to establish the suitability of any products for their intended applications. No statements shall be incorporated in any contract unless expressly agreed in writing or construed as recommending the use of any product in conflict of any patent. All goods are supplied subject to Glassbond Ltd’s General Conditions of Sale.