SAFETY DATA SHEET
Low Modulus silicone sealant

SECTION 1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Product name: Low Modulus silicone sealant

1.2 Use: A neutral cure, single component silicone sealant for internal and external uses.

1.3 Supplier of the safety data sheet:
Premier Sealant Systems Ltd.
Mercia Way
Foxhills Industrial Park
Scunthorpe
North Lincolnshire
DN15 8RE

Tel: 01724 864 100
Fax: 01724 860 116

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture Regulation (EC) No. 1272/2008

This product is not classified as dangerous according to Regulation (EC) 1272/2008 (CLP)

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008

No labelling according to GHS required

Special labelling instructions
Contains 3-aminopropyltriethoxysilane May cause an allergic reaction. Safety data sheet available on request

2.3 Other hazards

Product hydrolyses under formation of methanol (CAS no. 67-56-1). Methanol is toxic by inhalation, in contact with skin and if swallowed. Methanol causes damage to organs. Methanol is highly flammable. Product hydrolyses, producing ethanol (CAS no. 64-17-5) Ethanol is highly flammable.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable
3.2 Mixtures

3.2.1 Chemical characteristics

Polydimethylsiloxane & filler & auxiliary products & alkoxy silane cross-linker

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>REACH Registration No.</th>
<th>Classification According to Reg. (EC) 1278/2008 (CLP)</th>
<th>% W/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-aminopropyl(methyl)bis(triethoxysiloxy)silane</td>
<td>128446-60-6</td>
<td></td>
<td></td>
<td>Flam. Liq. 3: H226 Eye Irrit 2: H319 Skin Irrit 2: H315</td>
<td>&lt;2</td>
</tr>
</tbody>
</table>

3.2.2 Hazardous ingredients

[1] = Hazardous or environmentally harmful substance
[2] = Substance with a Community workplace exposure limit
[3] = PBT substance
[4] = vPvB substance

*Classification codes are explained in section 16

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information:
In case of accident or if you feel unwell seek medical advice (show label or SDS where possible)

After contact with eyes:
Rinse immediately with plenty of water. Seek medical advice in case of continuous irritation.

After contact with skin:
Wipe off excess material with cloth or paper. Wash with plenty of water or water & soap. In the event of a visible skin change or other complaint seek medical advice (show label or SDS where possible)

After inhalation:
Material cannot be inhaled under normal conditions.

After swallowing:
If accidentally swallowed wash mouth with water and give several small volumes of water to drink. DO NOT induce vomiting. Seek medical attention. (show label or SDS where possible)

4.2 Most important symptoms and effects. Both acute & delayed

Any relevant information can be found in other parts of this section

4.3 Indication of any immediate medical attention & special treatment needed

Further toxicology information in section 11 must be observed

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media:

Suitable extinguishing media
Alcohol resistant foam, CO₂, powder, water spray/mist & sand

Extinguishing media which must not be used for safety reasons
5.2 Special Hazards arising from the substance or mixture

Risk of hazardous gassed or fumes in the event of fire. Exposure to combustion products may be a health hazard! Hazardous combustion products: carbon oxides, silicon oxides, nitrogen oxides incompletely burnt hydrocarbons, toxic & very toxic fumes.

5.3 Advice for firefighters:

Special protective equipment for firefighting

Use respiratory protection independent of recirculated air. Keep unprotected persons away.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment & emergency procedures

Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes & skin. Do not inhale gases/vapours/aerosols. If material is released indicate risk of slipping. Do not walk through spilled material.

6.2 Environmental precautions

Prevent material from entering surface waters, drains or sewers & soil. Close leak if possible without risk. Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Inform authorities if substance leaks into surface waters, sewerage or ground.

6.3 Method for containment and clean up

Scoop up large quantities after dusting surface with sand or fuller’s earth to prevent sticking. Sweep or scrape up the spilled material & place in an appropriate chemical waste container. Clean any slippery coating that remains using detergent/soap solution or another biodegradable cleaner. Apply sand or other inert granular material to improve traction.

Further information


6.4 Reference to other sections

Relevant information in other sections has to be considered. This applies in particular for information given on personal protective equipment (section 8) & on disposal (section 13).

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure adequate ventilation. Must be syphoned off in situ. Spilled substance increases risk of slipping. Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Observe information in section 8. Keep away from incompatible substances in accordance with section 10.

Precautions against fire & explosion

Product can separate into ethanol & methanol. Flammable vapours may accumulate & form explosive mixtures with air in containers, process vessels, including partial, empty & uncleansed vessels, or other enclosed spaces. Keep away from sources of ignition & do no smoke. Take precautionary measures against electrostatic charging. Cool endangered containers with water.
7.2 Conditions for safe storage, including any incompatibilities

Conditions for storage rooms & vessels

Observe local/state/federal regulations

Advice for storage of incompatible materials

Observe local/state/federal regulations

Further information for storage

Store in a dry & cool place. Protect against moisture. Store container in a well-ventilated place.

7.3 Specific end use(s)

No data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Maximum airborne concentrations at the workplace

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Material</th>
<th>Type</th>
<th>mg/m³</th>
<th>ppm</th>
<th>Dust fract.</th>
<th>Fibre/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1</td>
<td>Methanol</td>
<td>OEL</td>
<td>266.0</td>
<td>200.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure Controls

8.2.1 Exposure in the work place limited control

General protection & hygiene measures

Observe standard industrial hygiene practices for the handling of the chemical substances. Do not ear or drink when handling. Avoid contact with eyes & skin.

Personal protection equipment

Respiratory protection

If inhalative exposure above the occupational exposure limit cannot be excluded, adequate respiratory protection equipment must be used. Suitable respiratory equipment: respirator with full face mask, according to acknowledged standards such as EN136. Recommended filter type: Gas filter type ABEK (certain inorganic, organic & acidic gases & vapours; ammonia/amines). According to acknowledges standards such as EN 14387.

Observe the equipment manufactures information & wear time limits for respirators.

Eye Protection

Protective goggles

Hand Protection

Gloves are required at all times when handling the material.
Recommended glove types: protective gloves made of butyl rubber thickness >0.3mm
Breakthrough time >480 mins

Recommended glove types: protective gloves made of nitrile rubber thickness >0.4mm
Breakthrough time 10-30 mins

Please observe the instructions regarding permeability & breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasions & the contact time. Note that, due to the numerous external influences (such as temperature), a chemically resistant protective glove in daily use may have a service life that is considerably shorter than the measured breakthrough time.

8.2.2 Exposure in the environment limited & controlled
Prevent material from entering surface waters, drains or sewers & soil

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical & chemical properties

<table>
<thead>
<tr>
<th>Property:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state/Form</td>
<td>Paste</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>Pleasant</td>
</tr>
<tr>
<td><strong>pH Value</strong></td>
<td></td>
</tr>
<tr>
<td>pH Value</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Melting/Freezing Point</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td></td>
</tr>
<tr>
<td><strong>Initial boiling point &amp; boiling range</strong></td>
<td></td>
</tr>
<tr>
<td>boiling point/boiling range</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit (LEL)</td>
<td>N/A</td>
</tr>
<tr>
<td>Upper explosion limit (UEL)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Solubility (ies)</strong></td>
<td></td>
</tr>
<tr>
<td>Water solubility/miscibility</td>
<td>Virtually insoluble</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td></td>
</tr>
</tbody>
</table>

5
Relative gas/vapour density | No data known

Relative density

Relative Density | 1.25 – 1.30g/cm³ @ 25⁰C (ISO 1138-1A Water = 1.00 g/cm³ @ 4⁰C)
Density | 1.25 – 1.30g/cm³ @ 25⁰C (ISO 1138-1A Water = 1.00 g/cm³ @ 4⁰C)

Partition coefficient: n-octanol/water

Partition coefficient: n-octanol/water | No data known

Auto-ignition temperature

Ignition temperature | >400⁰C (DIN 51794)

Decomposition temperature

Thermal Decomposition | N/A

Viscosity

Viscosity (dynamic) | N/A

9.2 Other information

Re 9.2 solubility in water: Hydrolytic decomposition occurs. Explosion limits for released methanol: 5.5 – 44% (V). Explosion limits for released ethanol: 3.5 – 15%(V)

SECTION 10. STABILITY AND REACTIVITY

10.1-10.3 Reactivity; Chemical stability; Possibility of hazardous reactions

If stored & handled in accordance with standard industrial practices no hazardous reactions are known.

Relevant information can possibly be found in other parts of this section

10.4 Conditions to avoid

Moisture

10.5 Incompatible materials

Reacts with: water, basic substances & acids. Reaction caused the formation of methanol & ethanol.

10.6 Hazardous decomposition products

Methanol, ethanol. Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150⁰C (302⁰F) through oxidation.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects

11.1.1 Acute toxicity

Product details:

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Result/Effect</th>
<th>Species/Test system</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD₅₀ &gt; 2000 mg/kg</td>
<td>Rat</td>
<td>Conclusion by analogy</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD₅₀ &gt; 2000 mg/kg</td>
<td>Rat</td>
<td>Conclusion by analogy</td>
</tr>
</tbody>
</table>
11.1.2 Skin corrosion/irritation

Product details:

<table>
<thead>
<tr>
<th>Result/Effect</th>
<th>Species/Test system</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not irritating</td>
<td>Rabbit</td>
<td>Conclusion by analogy</td>
</tr>
</tbody>
</table>

11.1.3 Serious eye damage/eye irritation

Product details

<table>
<thead>
<tr>
<th>Result/Effect</th>
<th>Species/Test system</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not irritating</td>
<td>Rabbit</td>
<td>Conclusion by analogy</td>
</tr>
</tbody>
</table>

11.1.4 Respiratory or skin sensitization

Product details

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Result/Effect</th>
<th>Species/Test system</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>Not sensitizing</td>
<td>Guinea pig; Bühler</td>
<td>Conclusion by analogy</td>
</tr>
</tbody>
</table>

11.1.5 Germ cell mutagenicity

Assessment:
For this endpoint no toxicological test date is available for the whole product.

11.1.6 Carcinogenicity

Assessment:
For this endpoint no toxicological test date is available for the whole product

11.1.7 Reproductive toxicity

Assessment:
For this endpoint no toxicological test date is available for the whole product

11.1.8 Specific target organ toxicity (single exposure)

Assessment:
For this endpoint no toxicological test date is available for the whole product

11.1.9 Specific target organ toxicity (repeated exposure)

Assessment:
For this endpoint no toxicological test date is available for the whole product

11.1.10 Aspiration hazard

Assessment:
Based on the physical-chemical properties of the product no aspiration hazard must be expected

SECTION 12. ECOLOGICAL INFORMATION
12.1 Toxicity

Assessment:
Assessment based on ecotoxicological tests with similar products under consideration of the physical-chemical properties: For this product no effects on aquatic organisms, relevant for classification, are expected. According to the current knowledge adverse effects on water purification plants are not expected.

12.2 Persistence & degradability

Assessment:
Silicone content: biologically not degradable. Separation by sedimentation. The product of hydrolysis (methanol) is readily biodegradable.

12.3 Bioaccumulative potential

Assessment:
Polymer component: No adverse effects expected.

12.4 Mobility in soil

Assessment:
Insoluble in water. No adverse effects expected.

12.5 Results of PBT & vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative & toxic (PBT), or very persistent & very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

None known.

12.7 Additional information

Easily separable from water by filtration.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Material

Recommendation:
Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, & local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill or incineration.

13.1.2 Uncleaned packaging

Recommendation:
Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Uncleaned packaging should be treated with the sample precautions as the material.

13.1.3 Waste disposal Legislation Ref.No.(EC)

It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.
SECTION 14 TRANSPORT INFORMATION

14.1 – 14.4 UN number; UN proper shipping name; Transport hazard class(es); Packing group

Road ADR:
Valuation Not regulated for transport

Railway RID:
Valuation Not regulated for transport

Transport by sea IMDG-Code:
Valuation Not regulated for transport

Air transport ICAO-TI/IATA-DGR
Valuation Not regulated for transport

14.5 Environmental hazards
Hazardous to the environment: No

14.6 Special precautions for user
Relevant information in other sections must be considered.

14.7 Transport in bulk according to Annex II of MARPOL & the IBC Code
Bulk transport in tankers is not intended

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National & Local regulations must be observed

For information on labelling please refer to section 2 of this document.

Relevant regulations:
SI 2002/1689: CHIP Regulations 2002
SI 2002/2677 Coshh Regulations 2002
SI 1999/3242 Management of Health and Safety at Work Regulations 1999
Health & Safety at Work Act 1974
SI 1993/1643 Environmental Protection Act 1993 & Subsidiary Regulations.
Other nations & local measures relating to the workplace, pollution control, environmental protection & waste control.

Other specifications, restrictions & prohibitions:
REACH Annex XVII: This product contains dibutyltin compounds in an amount of over 0.1 wt. %. Annex XVII, entry 20, of regulation 1907/2006, in its current version, must be taken into account.

15.2 Chemical safety assessment
A chemical safety assessment according to the (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

15.3 Details of international registration status
Relevant information about individual substance inventories, where available, is given below.

South Korea ECL (Existing Chemicals List):
This product is listed in, or complies with, the substance inventory.

Japan ENCS (Handbook of Existing & New Chemical Substances):
Australia  AICS (Australian Inventory of Chemical Substances): This product is listed in, or complies with, the substance inventory.

Peoples Republic of China  IECSC (Inventory of Existing Chemical Substances in China): This product is listed in, or complies with, the substance inventory.

USA  TSCA (Toxic Substance Control Act Chemical Substance Inventory): This product is listed in, or complies with, the substance inventory.

EEA-European Economic Area  REACH (Regulation (EC) No 1907/2006: General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligation for the substance imported into the EEA by customers or other downstream users must be fulfilled by the latter.

SECTION 16. OTHER INFORMATION

16.1 Material

The details in this document are based on the state of our knowledge at the time of revision. They do not constitute an assurance of the described product properties in terms of statutory warranty requirements.

The providing of this document to a recipient does not relieve the recipient of his or her responsibility toward compliance with all laws & stipulations applicable to the product. This applies in particular to the further sale or distribution of the product or substances or items containing the product, in other jurisdictions & with regard to the protection of third-party intellectual property rights. If the described product is processed or mixed with other substances or materials, the details stated in the document cannot be conferred to the resultant new product unless this has been expressly mentioned. If the product is repackaged, the recipient is obligated to additionally provide the required safety related information.

16.2 Further information

This version supersedes all previous versions

Explanation of the GHS Classification Code:

Flammable Liquid 3; H226
Flammable liquids Category 3; Flammable liquid & Vapour

Eye Irritant 2; H319
Serious eye damage/eye irritation Category 2A; Causes serious eye irritation

Skin Irritant 2; H315
Skin corrosion/irritation Category 2; Causes skin irritation.

STOT SE 2: H371
May cause damage to organs

Flammable Liquid 3: H226
Flammable liquid and vapour

Acute Toxicity 4: H332
Harmful if inhaled

STOT SE 3: H335
May cause respiratory irritation