1. Product and Company Identification

Product Name: SILANE BHN


Manufacturer: UNIVERSAL SEALANTS (UK) LIMITED
Kingston House, 3 Walton Road, Pattinson North, Washington, Tyne & Wear. NE38 8QA, United Kingdom

Tel: +44 (0) 191 416 1530    Fax: +44 (0) 191 415 4377    Email: info@usluk.com

24 Hour Emergency Tel: CHEMTREC +1 703 527 3887

2. Hazard Identification

Possible Hazards:
R38: Irritating to skin.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No</th>
<th>EINECS</th>
<th>Conc. (w/w)</th>
<th>Classification</th>
<th>R. Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trialkoxyisobutylsilane</td>
<td>17980-47-1</td>
<td>402-810-3</td>
<td>100%</td>
<td>Xi</td>
<td>38</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Inhalation: In case of drowsiness or sickness remove to fresh air, keep patient warm and at rest. If unconscious, turn to the recovery position. Seek medical assistance.

Skin Contact: Promptly remove contaminated clothing and wash the affected area with plenty of soap and water to ensure all traces of product are removed, then rinse thoroughly. Any contaminated clothing must be thoroughly cleaned before re-using. Seek medical advice if irritation persists.

Eye Contact: Flush with copious amounts of clean water for at least 15 minutes, with the eye lids held open. Seek medical attention.

Ingestion: Wash out mouth with water, have patient drink plenty of water in small sips. Keep patient at rest and obtain immediate medical attention. DO NOT INDUCE VOMITING.

Note to Physician: If required, therapy or irritative effect. After absorbing larger amount of substance: administration of activated charcoal, acceleration of the gastro-intestinal tract.

5. Fire Fighting Measures

Suitable Extinguisher Media: Alcohol-resistant foam, dry powder, carbon dioxide or water spray.

Unsuitable Extinguishing Media: Water jet.
Exposure Hazards: May give off toxic fumes if heated or involved in a fire, including carbon monoxide, carbon dioxide. Also ethanol in case of hydrolysis.

Special Protective Equipment: In the event of fire wear self-contained breathing apparatus.

6. Accidental Release Measures

Personal Precautions: Wear protective equipment as specified in Section 8. Do not eat, drink or smoke. Avoid contact with skin and eyes. Avoid breathing vapours. Eliminate all ignition sources.

Environmental Precautions: Keep people and animals away. Prevent entry into drains, sewers and watercourses. If spillage enters drains leading to sewerage works inform the local water company. If spillage enters rivers or watercourses inform the Environment Agency.

Spillages: Cordon off area. Avoid sparks and open flames. Absorb/contain spillage using inert absorbent granules, sand or earth. Transfer collected material to heavy-duty plastic/steel drums and keep in a well ventilated place for subsequent safe disposal. See Section 13.

7. Handling and Storage

Handling: No specific precautions required when handling unopened containers; follow any relevant manual handling guidance. Refer to Sections 6 and 8 if exposure to product is possible. Take precautionary measures against static discharges. No smoking. Wash thoroughly with soap and water before eating, drinking or smoking, and after work.

Storage: Keep containers tightly closed and store in a well ventilated area away from heat, sunlight, ignition sources or open flame. Protect from moisture.

8. Exposure Controls / Personal Protection

Occupational Exposure Standards: None known.

Engineering Control Measures: Refer to any applicable COSHH assessments. Engineering controls should be used where practicable in preference to personal protection and may include physical containment and good ventilation.

Respiratory Protection: If levels of vapour or aerosols occur use an approved respirator fitted with an appropriate gas cartridge (organic substance). All items must conform to EN149 and should be suitable for the levels of contamination present in the workplace.

Hand Protection: Wear Neoprene, Nitrile or PVC gloves or gauntlets. These must be manufactured to EN374. The material
breakthrough time should be stated by the glove manufacturer, and must be observed at all times.

**Eye Protection:**
If splashing of the product is likely chemical resistant goggles should be worn.

**Body Protection:**
Wear suitable impervious, chemical resistant overalls.

**Foot Protection:**
Wear chemical resistant safety footwear.

**Hygiene Measures:**
Handle in accordance with good industrial hygiene and safety practice.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>186°C</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Vapour Pressure @ 25°C</td>
<td>0.68hPa</td>
</tr>
<tr>
<td>pH</td>
<td>N/D</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>N/D</td>
</tr>
<tr>
<td>Flash Point</td>
<td>63°C</td>
</tr>
<tr>
<td>Flammable Limits in Air</td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>8.47%</td>
</tr>
<tr>
<td>Lower</td>
<td>0.39%</td>
</tr>
<tr>
<td>Solubility</td>
<td>Immiscible in water</td>
</tr>
<tr>
<td></td>
<td>(decomposition by hyrolysis)</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not classified as flammable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.88</td>
</tr>
</tbody>
</table>

### 10. Stability and Reactivity

**Stability:**
Stable under normal conditions (see Section 7). Avoid heat, flames, sparks and moisture.

**Materials to Avoid:**
Reacts strongly with oxidisers.

**Hazardous Decomposition Products:**
Thermal decomposition may lead to the formation of a wide range of compounds, some of which may be hazardous, including carbon monoxide. Hydrolysis of the product results in the evolution of ethanol.

### 11. Toxicological Information

- **LD 50 (oral, rat):** >5000mg/kg
- **LC 50 (inhal, rat):** 5.88mg/litre/4 hours
- **LD50 (dermal, rat):** 2000mg/kg

**Inhalation:**
Possibly harmful (hydrolysis product, ethanol).

**Skin Contact:**
Frequent or prolonged contact may cause irritation and cause dermatitis.

**Eye Contact:**
Not irritating.
Ingestion: Possibly harmful (hydrolysis product, ethanol). Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.

12. Ecological Information

Elimination information (persistence and degradability)

Biodegradability: 75% readily biodegradable
Method: OECD 301 D (literature value)

Behaviour in environmental compartments
Ecotoxicity effects:
- Toxicity to fish: LC50 Oncorhynchus mykiss: 85 mg/l/96h
  Method: EC 84/449 (literature value)
- Toxicity to daphnia: EC50 Daphina magna: >49.10mg/l/48h
  Method: EC 84/449
- Toxicity to algae: NOEC scenedesmus subspicatus: >=36mg/l/72h
  Method: EC 88/302
- Toxicity to Terrestrial Plants: EC50 Trifolium ornithopadioides: >100.00mg/kg/336h
  Method: OECD 208
- Toxicity to Terrestrial Non-mammals: LC50 foetida: >1000.00mg/kg/14d
  Method: EC 88/302

13. Disposal Considerations

Dispose of unused product as hazardous waste, in accordance with all applicable local and national regulations, and in compliance with the Environmental Protection (Duty of Care) Regulations 1991.
Used containers should be drained thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums.

14. Transport Information

Not classified as hazardous for any mode of transport.

15. Regulatory Information

EU Classification and Labelling Particulars:

Designated Name: SILANE BHN
Classification: Irritant
Indication(s) of Danger: Xi

Risk and Safety Phrases:
- R38: Irritating to skin.
- S24: Avoid contact with the skin.
16. Other Information

Full Text of R-Phrases Referred to above:

R38: Irritating to skin.

Training Advice: Do not use unless trained to do so. Refer to the Technical Data Sheet for the product.

Recommended Uses: For professional use only. This product is designed for use as a silicone complex based concrete and masonry water repellent treatment.

Further Information: This Safety Data Sheet was compiled in accordance with EU Directives 67/548/EEC and 1999/45/EC. The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark. ESES (The European Chemical Substances Information System), provided by the European Commission Joint Research Centre in Ispra, Italy. Reference was also made to the above legislation and guidance publications.


MSDS Revised: 29th April, 2010.

Changes in this Version: Sections 1,2,3,5,8,14,15 & 16 revised to reflect REACH regulations and EU Directive 1907/2006/EC.

Prepared By: F. Stratton

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