1. Identification of Product and company name:

Product Name: S1 SUPER BOND
(Bonding Agent, cement admixture premix to improve bonding of cement plaster, floor screed, wall render)
Company: Warrior Pte Ltd
Contact address: 17 Marsiling Industrial Estate Road 1 #01-11, Singapore 739279
Telephone: +65 6364 5100
Facsimile: +65 6364 0629
E-mail address: war99@singnet.com.sg

2. Hazards Identification:

GHS Classification:
This product is not classified as hazardous according to GHS criteria.
GHS Label Elements and Precautionary Statements:
This product does not require a hazard warning label in accordance with GHS criteria.
Other hazards which do not result in classification:
No specific dangers known, if the regulation/notes for storage and handling are considered.
No chronic hazard is expected when good industrial and personal hygiene is practiced.

3. Composition/information on ingredients:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Proportions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water based acrylic polymer dispersion/mixture</td>
<td>7732-18-5</td>
<td>35-90%</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>--</td>
<td>10-60%</td>
</tr>
</tbody>
</table>

4. First Aid Measures:

Inhalation: Get medical attention immediately.
Ingestion: Do not induce vomiting, maintain an open airway. Seek immediate medical attention.
Eye contact: Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
Skin contact: Remove contaminated clothing. Use soap or clean water to wash away the chemical and get medical attention if irritation or redness develops.
**MATERIAL SAFETY DATA SHEET**

**S1 SUPER BOND**

Bonding Agent, cement admixture premix to improve bonding of cement plaster, floor screed, wall render

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**5. Fire-fighting Measures:**

The product is non-flammable (water-borne system). If material is involved in fire, do not breathe fumes.

**Extinguishing media**: Use an appropriate extinguisher for the surrounding fire (water, foam, dry powder, CO2)

**Special exposure hazards**: No specific fire or explosion hazard.

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**6. Accidental Release Measures:**

**Personal precautions**: Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**Environmental precautions**: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Dried material is environment-friendly.

**For small spill**: Absorb spillage with absorbent materials such as sand, sawdust, paper, general-purpose binder. Allow to dry before disposing material in accordance with regulations.

**For large spill**: Pump off product. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas.

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**7. Handling and Storage:**

**Handling**: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

**Storage**: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
8. Exposure control / Personal protection:

**Occupational exposure control:**
Use only with adequate ventilation. This product does not contain components which have relevant occupational exposure limits.

**Respiratory protection:**
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed.

**Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: Butyl rubber/nitrile rubber gloves.

**Eye protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

**Skin protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Use barrier skin cream.

9. Physical / Chemical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Milky white liquid</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not flammable (water-borne system)</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>100°C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Oxidising Properties</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flammability Limits</td>
<td>None allocated</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1.0 – 2.5 dPa·s</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Approx. 1.03</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity:

**Stability:** The product is stable. However, avoid extreme temperatures which can cause polymer decomposition.

**Conditions to avoid:** No specific data

**Materials to avoid:** No specific data

**Hazardous decomposition:** No hazardous decomposition products are expected if stored and handled as prescribed/indicated.
11. Toxicological Information:

This product has not been tested and all the toxicological statements have been derived from the respective components’ available toxicity information.

**Acute toxicity**
Experimental/calculated data:
LD50, oral: > 5,000 mg/kg (the product is not toxic/harmful if swallowed.)
LD50, dermal: > 5,000 mg/kg (the product is not toxic/harmful in contact with skin)
LC50, inhalation: > 20 mg/L (the product is not toxic/harmful if inhaled)

**Skin and Eye Corrosion / Irritation**
This product is not expected to cause skin or eye irritation.

**Respiratory / Skin sensitization**
The product is not expected to cause allergic skin reactions or respiratory sensitization.

**Germ cell mutagenicity / Carcinogenicity / Reproductive toxicity / Developmental toxicity**
Based on the assessment of available information, the product is: not mutagenic in bacteria; has no known carcinogenic effect; and not expected to cause reproductive and developmental toxicity.

**Specific target organ toxicity (single and repeated exposure)**
Based on the available information, there is no specific target organ toxicity expected after a single or repeated exposure to the product.

12. Ecological Information:

The following ecological assessment is based on the available ecotoxicity information of the product’s components.

**Ecotoxicity**
This product is not expected to be toxic to aquatic life based on the toxicity values to the following
Aquatic organisms:
Fish: LC50 (96h) > 200 mg/l, Brachydanio rerio (OECD Guideline 203, static)
Aquatic invertebrates: EC50 (48h) > 200 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)
Aquatic plants: LC50 (72h) > 200 mg/l, Scenedesmus subspicatus (OECD Guideline 201)

13. Disposal Considerations:

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
14. Transport Information:

This product is classified as NON-HAZARDOUS under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

15. Regulatory Information:

Labelling requirements according to EEC Directives
This product is not subject to labelling in accordance with EEC Directives.

National legislation/regulations:
According to the data available to us, the product is not hazardous under the relevant Singapore Legislation.