1. Identification of the Substance/Preparation and of the Company/Undertaking

**Product identifier**

**Product Name**  
FORBO ARMORFIX

**Other means of identification**

**Synonyms**  
None

**Recommended use of the chemical and restrictions on use**

**Recommended use**  
Adhesives

**Uses advised against**  
No information available

**Details of the supplier of the safety data sheet**

**Responsible Party**  
Forbo Flooring Systems  
3983 Nashua Dr., Unit 1  
Mississauga, ON L4V 1P3 Canada  
Téléphone: 800-268-8108

**Emergency telephone number**

Chemtrec: 1-800-424-9300

2. Hazards Identification

**Classification**

Not a dangerous substance or mixture according to Hazardous Products Regulations (HPR) (SOR/2015-17)

**Label elements**

**Hazard statements**  
Not applicable

**Precautionary Statements - Prevention**  
Not applicable

**Precautionary Statements - Response**  
Not applicable

**Precautionary Statements - Storage**
Safety Data Sheet

FORBO ARMORFIX
Revision Number 1

Precautionary Statements - Disposal
Not applicable

Other information

3. Composition/information on Ingredients

Substance
Not applicable.

Mixture

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Hazardous Material Information Review Act registry number (HMIRA registry #)</th>
<th>Date HMIRA filed and date exemption granted (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>10 - 30</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1,2-Propylene glycol</td>
<td>57-55-6</td>
<td>0.5 - 1.5</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

4. First Aid Measures

FIRST AID

Inhalation
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Do not rub affected area. If eye irritation persists: Get medical advice/attention.

Skin contact
Wash off immediately with plenty of water for at least 15 minutes. In the case of skin irritation or allergic reactions see a physician.

Ingestion
Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms
No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. Fire-Fighting Measures

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the
No information available.
Hazardous Combustion Products
Carbon monoxide. Carbon dioxide (CO2). Hydrocarbons.

Explosion Data
- Sensitivity to mechanical impact: None.
- Sensitivity to static discharge: None.

Special protective equipment for fire-fighters
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Use personal protective equipment as required. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing.

Environmental precautions
See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Use personal protective equipment as required. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and Storage

Precautions for safe handling
Advice on safe handling
Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities
Storage Conditions
Keep from freezing. Keep containers tightly closed in a cool, well-ventilated place.

Reference to other sections
Section 10: STABILITY AND REACTIVITY

8. Exposure Controls/Personal Protection

Control parameters
Exposure Limits

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario TWA</th>
<th>Quebec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals</td>
<td>TWA: 5 mg/m³</td>
<td>TWA: 1 fibre/cm³</td>
<td>TWA: 1 fibre/cm³</td>
<td>TWA: 10 mg/m³</td>
</tr>
</tbody>
</table>
Appropriate engineering controls

Engineering controls
- Showers
- Eyewash stations
- Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection
- Wear safety glasses with side shields (or goggles).

Skin and body protection
- Wear suitable protective clothing.

Respiratory protection
- No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations
- Wear suitable gloves and eye/face protection. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Regular cleaning of equipment, work area and clothing is recommended.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>8.0 - 9.0</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 100 °C / 212 °F</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable for liquids</td>
<td></td>
</tr>
<tr>
<td>Decomposition Limit in Air</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>
Safety Data Sheet

Explosive properties: No information available.
Oxidizing properties: No information available.

Other information:
- Softening Point: No information available.
- Molecular Weight: No information available.
- Density: 9.20 - 9.60 LB/GAL
- Bulk Density: No information available.
- Solid content (%): 70-75
- VOC (volatile organic compound): 0 g/L

10. Stability and Reactivity

Reactivity: No information available.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: None under normal processing.
Conditions to avoid: Keep from freezing.
Incompatible materials: None known based on information supplied.
Hazardous decomposition products: Carbon monoxide. Carbon dioxide (CO2). Hydrocarbons.

11. Toxicological Information

Information on likely routes of exposure

Product Information

- Inhalation: Based on available data, the classification criteria are not met.
- Eye contact: Based on available data, the classification criteria are not met.
- Skin contact: Based on available data, the classification criteria are not met.
- Ingestion: Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms: No information available.

Numerical measures of toxicity

Acute Toxicity

Unknown acute toxicity
No information available

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals 65997-17-3</td>
<td>&gt;2000 mg/Kg Rat</td>
<td>-</td>
<td>LC50 &gt; 0.691 mg/l (Rat) 4-Hr</td>
</tr>
<tr>
<td>1,2-Propylene glycol 57-55-6</td>
<td>= 20 g/kg (Rat)</td>
<td>LD50 &gt; 2000 mg/kg (Rabbit)</td>
<td>LC50 (4h) &gt;44.9 mg/L (Rat)</td>
</tr>
</tbody>
</table>

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Skin corrosion/irritation  
No information available.

Serious eye damage/eye irritation  
No information available.

Respiratory or skin sensitization  
No information available.

Germ cell mutagenicity  
No information available.

Carcinogenicity  
No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals 65997-17-3</td>
<td>-</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**IARC (International Agency for Research on Cancer)**  
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity  
No information available.

STOT - single exposure  
No information available.

STOT - repeated exposure  
No information available.

Target Organ Effects  
No information available.

Subchronic Toxicity  
No information available.

Neurological Effects  
No information available.

Other Adverse Effects  
No information available.

Aspiration hazard  
No information available.

### 12. Ecological Information

**Ecotoxicity**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol 57-55-6</td>
<td>EC50: 19000mg/L (96h, Pseudokirchneriella subcapitata)</td>
<td>LC50: 710mg/L (96h, Pimephales promelas) LC50: 51600mg/L (96h, Oncorhynchus mykiss) LC50: 41 - 47mg/L (96h, Oncorhynchus mykiss) LC50: 51400mg/L (96h, Pimephales promelas)</td>
<td>-</td>
<td>EC50: &gt;10000mg/L (24h, Daphnia magna) EC50: &gt;10000mg/L (48h, Daphnia magna)</td>
</tr>
</tbody>
</table>

**Persistence and degradability**  
No information available.

**Bioaccumulative potential**  
No information available.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol 57-55-6</td>
<td>-1.07</td>
</tr>
</tbody>
</table>
13. Disposal Considerations

Waste treatment methods

Waste from residues/unused products
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Contaminated packaging
Do not reuse empty containers.

14. Transport Information

Note: Keep from freezing

TDG Not regulated
IATA Not regulated
IMDG Not regulated

15. Regulatory Information

NPRI - National Pollutant Release Inventory
No component is listed on the NPRI above the threshold

European Union

Restrictions of Use of Hazardous Substances (RoHS) Directive 2011/65/EU
This product does not contain Lead (7439-92-1), Cadmium (7440-43-9), Mercury (7439-97-6), Hexavalent chromium (7440-47-3), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ethers (PBDE) above the regulated limit mentioned in this regulation

SVHC: Substances of Very High Concern for Authorization:
This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

International Inventories

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL - Canadian Domestic Substances List
Listed - The components of this product are either listed or exempt from listing on inventory.
Not Listed - One or more components of this product are not listed on inventory.
16. Other information, including date of preparation of the last revision

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend  Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
TWA  TWA (time-weighted average)  STEL  STEL (Short Term Exposure Limit)
Ceiling  Maximum limit value  *  Skin designation

Revision Date  22-May-2019
Revision note  No information available.

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet