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

Product identifier

Product Name: Forbo C930 Conductive Adhesive

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
Phone: +1 (800) 268-8108

Emergency telephone number

Telephone: +1 (800) 268-8108

2. Hazards Identification

Classification

<table>
<thead>
<tr>
<th>Skin corrosion/irritation</th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
</tbody>
</table>

Label elements

Warning

Hazard statements
Causes skin irritation
Causes serious eye irritation
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Specific treatment (see supplemental first aid instructions on this label)

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Skin
IF ON SKIN: Wash with plenty of water and soap
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse

Precautionary Statements - Storage
Not applicable

Precautionary Statements - Disposal
Not applicable

Other information
Unknown acute toxicity
3 % of the mixture consists of ingredient(s) of unknown toxicity

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>Limestone</td>
<td>1317-65-3</td>
<td>15 - 40</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1,2-Propylene glycol</td>
<td>57-55-6</td>
<td>1 - 5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Carbonic acid, magnesium salt (1:1)</td>
<td>546-93-0</td>
<td>1 - 5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates</td>
<td>68308-67-8</td>
<td>0.5 - 1.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>0.1 - 1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Silver</td>
<td>7440-22-4</td>
<td>0.1 - 1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
4. First Aid Measures

**FIRST AID**

**General advice**  
Show this safety data sheet to the doctor in attendance.

**Inhalation**  
Remove to fresh air. Get medical attention immediately if symptoms occur.

**Eye contact**  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

**Skin contact**  
Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

**Ingestion**  
Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician or poison control center immediately.

**Self-protection of the first aider**  
Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

**Symptoms**  
Burning sensation. Irritating to skin.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians**  
Treat symptomatically.

5. Fire-Fighting Measures

**Suitable extinguishing media**  
Dry chemical, CO2, alcohol-resistant foam or water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**  
Full water jet.

**Specific hazards arising from the chemical**  
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. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Other information
Refer to protective measures listed in Sections 7 and 8.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

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. Dam up. Cover liquid spill with sand, earth or other noncombustible absorbent material. 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
Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Reference to other sections
Section 10: STABILITY AND REACTIVITY

8. Exposure Controls/Personal Protection

Control parameters

Exposure Limits
This product contains substances which in their raw state are powder form, however in this product they are in a non-respirable form. Inhalation of powder/dust particles is unlikely to occur from exposure to this product.

<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>Limestone</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 3 mg/m³</td>
<td>TWA: 10 mg/m³</td>
</tr>
<tr>
<td>1317-65-3</td>
<td></td>
<td>TWA: 3 mg/m³</td>
<td>STEL: 20 mg/m³</td>
<td></td>
</tr>
<tr>
<td>1,2-Propylene glycol</td>
<td></td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 10 mg/m³</td>
<td>STEL: 20 mg/m³</td>
</tr>
<tr>
<td>57-55-6</td>
<td></td>
<td></td>
<td>TWA: 50 ppm</td>
<td></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**
  - Tight sealing safety goggles.

- **Hand protection**
  - Wear suitable gloves. Impervious gloves.

- **Skin and body protection**
  - Wear suitable protective clothing. Long sleeved 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. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Take off contaminated clothing and wash it before reuse. 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>viscous Liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No data available</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>100 °C / 212 °F</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>1.0</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability 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>
</tbody>
</table>

Forbo C930 Conductive Adhesive
Revision Number 1
Revision Date 03-May-2019
Supersedes Date: 03-May-2019
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
None known based on information supplied.

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
Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components).

Skin contact
Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion
Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms
Redness. May cause redness and tearing of the eyes.

Numerical measures of toxicity
Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

**ATEmix (oral)** 34,798.00 mg/kg

**ATEmix (inhalation-dust/mist)** 59.66 mg/l

**ATEmix (inhalation-vapor)** 357.00 mg/l

**Unknown acute toxicity**

3 % of the mixture consists of ingredient(s) of unknown toxicity

1 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

3 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

3 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

3 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

3 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone</td>
<td>&gt;5000 mg/kg (rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1317-65-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2-Propylene glycol</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>
<tr>
<td>57-55-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbonic acid, magnesium salt (1:1)</td>
<td>&gt;2000 mg/Kg Rat</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>546-93-0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartz 14808-60-7</td>
<td>&gt;2000 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Silver 7440-22-4</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rat)</td>
<td>-</td>
</tr>
</tbody>
</table>

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation**

Classification based on data available for ingredients. Causes skin irritation.

**Serious eye damage/eye irritation**

Classification based on data available for ingredients. Causes serious eye irritation.

**Respiratory or skin sensitization**

No information available.

**Germ cell mutagenicity**

No information available.

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen. As Quartz (14808-60-7) is inextricably bound in the polymer matrix, it is not expected to be available as an airborne hazard (dust, mist, or spray) under normal condition of uses.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz 14808-60-7</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
</tbody>
</table>

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity**

No information available.
STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Target Organ Effects
Eyes, retina, Skin.

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>Limestone 1317-65-3</td>
<td>CE50 (72h) &gt;200mg/L Algae (Desmondesmus subspicatus)</td>
<td>CL50 (96h)&gt;10000mg/L Fish (Oncorhynchus mykiss)</td>
<td>-</td>
<td>CE50 (48h) &gt;1000 mg/L Daphnia Magna</td>
</tr>
<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 - 47mL/L (96h, Oncorhynchus mykiss) LC50: =51400mg/L (96h, Pimephales promelas)</td>
<td>-</td>
<td>EC50: &gt;10000mg/L (24h, Daphnia magna) EC50: &gt;1000mg/L (48h, Daphnia magna)</td>
</tr>
<tr>
<td>Silver 7440-22-4</td>
<td>-</td>
<td>LC50: 0.00155 - 0.00293mg/L (96h, Pimephales promelas) LC50: =0.064mg/L (96h, Lepomis macrochirus) LC50: =0.0062mg/L (96h, Oncorhynchus mykiss)</td>
<td>-</td>
<td>EC50: =0.00024mg/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>Limestone 1317-65-3</td>
<td>0.9</td>
</tr>
<tr>
<td>1,2-Propylene glycol 57-55-6</td>
<td>-1.07</td>
</tr>
</tbody>
</table>

#### Mobility in soil
No information available

#### Other Adverse Effects
No information available.
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: The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments made in non-bulk packages (see regulatory definition). The information shown here, may not always agree with the bill of lading shipping description for the material.

TDG

UN/ID No
UN3082

Proper Shipping Name
Environmentally hazardous substance, liquid, n.o.s. (Silver, Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates)

Hazard Class
9

Packing Group
III

Special Provisions
16, 99

Description
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Silver, Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates), 9, III

IATA

UN Number
UN3082

Proper Shipping Name
Environmentally hazardous substance, liquid, n.o.s. (Silver, Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates)

Transport hazard class(es)
9

Packing Group
III

ERG Code
9L

Special Provisions
A97, A158, A197

Description
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Silver, Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates), 9, III

IMDG

UN Number
UN3082

Proper Shipping Name
Environmentally hazardous substance, liquid, n.o.s. (Silver, Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates), Marine Pollutant

Transport hazard class(es)
9

Packing Group
III

EmS-No.
F-A, S-F

Special Provisions
274, 335, 969

Description
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Silver, Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates), 9, III, Marine Pollutant

15. Regulatory Information

NPRI - National Pollutant Release Inventory
No component is listed on the NPRI above the threshold
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: 03-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