

Safety Data Sheet

In accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

FORBO ARMORFIX
Revision Number 1

Revision Date 22-May-2019
Supersedes Date: 22-May-2019

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

Revision Date 22-May-2019
Supersedes Date: 22-May-2019

Not applicable

Precautionary Statements - Disposal

Not applicable

Other information

3. Composition/information on Ingredients

Substance

Not applicable.

Mixture

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

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.

Safety Data Sheet

FORBO ARMORFIX
Revision Number 1

Revision Date 22-May-2019
Supersedes Date: 22-May-2019

chemical

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

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

Chemical name	Alberta	British Columbia	Ontario TWA	Quebec
Glass, oxide, chemicals	TWA: 5 mg/m ³	TWA: 1 fibre/cm ³	TWA: 1 fibre/cm ³	TWA: 10 mg/m ³

Safety Data Sheet

FORBO ARMORFIX
Revision Number 1

Revision Date 22-May-2019
Supersedes Date: 22-May-2019

65997-17-3	TWA: 1 fibre/cm3	TWA: 5 mg/m ³	TWA: 5 mg/m ³	
1,2-Propylene glycol 57-55-6			TWA: 10 mg/m ³ TWA: 50 ppm TWA: 155 mg/m ³	

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

Information on basic physical and chemical properties

Physical State Liquid
Appearance No information available
Color No information available
Odor No information available
Odor Threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	8.0 - 9.0	
Melting point / freezing point	No data available	
Boiling point / boiling range	No data available	
Flash Point	> 100 °C / 212 °F	
Evaporation Rate	No data available	
Flammability (solid, gas)	Not applicable for liquids .	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor Pressure	No data available	
Vapor Density	No data available	
Relative Density	No data available	
Water Solubility	No data available	
Solubility in Other Solvents	No data available	
Partition coefficient	No data available	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Kinematic Viscosity	No data available	
Dynamic Viscosity	No data available	

Safety Data Sheet

FORBO ARMORFIX
Revision Number 1

Revision Date 22-May-2019
Supersedes Date: 22-May-2019

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

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

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

Safety Data Sheet

FORBO ARMORFIX
Revision Number 1

Revision Date 22-May-2019
Supersedes Date: 22-May-2019

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.

Chemical name	ACGIH	IARC	NTP	OSHA
Glass, oxide, chemicals 65997-17-3	-	Group 3	-	-

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

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
1,2-Propylene glycol 57-55-6	EC50: =19000mg/L (96h, Pseudokirchneriella subcapitata)	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)	-	EC50: >10000mg/L (24h, Daphnia magna) EC50: >1000mg/L (48h, Daphnia magna)

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.

Chemical name	Partition coefficient
1,2-Propylene glycol 57-55-6	-1.07

Safety Data Sheet

FORBO ARMORFIX
Revision Number 1

Revision Date 22-May-2019
Supersedes Date: 22-May-2019

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: 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 $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

International Inventories

TSCA	Listed
DSL	Not Listed

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.

Safety Data Sheet

FORBO ARMORFIX
Revision Number 1

Revision Date 22-May-2019
Supersedes Date: 22-May-2019

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