

Safety Data Sheet

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

FORBO NR99 STEP 2
Revision Number 1

Revision Date 23-May-2019
Supersedes Date: 23-May-2019

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

Product identifier

Product Name FORBO NR99 STEP 2

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
Telephone: 800-268-8108

Emergency telephone number

Chemtrec: 1-800-424-9300

2. Hazards Identification

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

Label elements

Warning

Hazard statements

Causes skin irritation
Causes serious eye irritation



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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

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

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)
Limestone	1317-65-3	10 - 30	-	-
Carbonic acid, magnesium salt (1:1)	546-93-0	0.5 - 1.5	-	-
1,2-Propylene glycol	57-55-6	0.5 - 1.5	-	-
2-(Dimethylamino)ethanol	108-01-0	0.5 - 1.5	-	-
Quartz	14808-60-7	0.1 - 1	-	-

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.

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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. Do not rub affected area. Get medical attention if irritation develops and persists.
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. If symptoms persist, call a physician.
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 Irritating to skin. May cause redness and tearing of the eyes.

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 or water spray. Foam. 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. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged packages or spilled material.
Other information	Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so. See Section 12 for additional Ecological Information.
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Methods and material for containment and cleaning up

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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. Take up mechanically, placing in appropriate 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. 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 before reuse.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
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.
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Chemical name	Alberta	British Columbia	Ontario TWA	Quebec
Limestone 1317-65-3	TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 3 mg/m ³ STEL: 20 mg/m ³		TWA: 10 mg/m ³
Carbonic acid, magnesium salt (1:1) 546-93-0		TWA: 10 mg/m ³ TWA: 3 mg/m ³		TWA: 10 mg/m ³
1,2-Propylene glycol 57-55-6			TWA: 10 mg/m ³ TWA: 50 ppm TWA: 155 mg/m ³	
2-(Dimethylamino)ethano l 108-01-0			TWA: 3 ppm TWA: 11 mg/m ³ STEL: 6 ppm STEL: 22 mg/m ³	
Quartz 14808-60-7	TWA: 0.025 mg/m ³	TWA: 0.025 mg/m ³	TWA: 0.10 mg/m ³	TWA: 0.1 mg/m ³

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

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Eye/face protection	If splashes are likely to occur, wear safety glasses with side-shields.
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

Information on basic physical and chemical properties

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

Property	Values	Remarks • Method
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	
Explosive properties	No information available.	
Oxidizing properties	No information available.	
Other information		
Softening Point	No information available	
Molecular Weight	No information available	
Density	1.22 g/cm ³	
Bulk Density	No information available	
Solid content (%)	No information available	

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VOC (volatile organic compound) 0 g/L / 0 %

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 Strong acids. Strong bases. Strong oxidizing agents.

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 Irritating to eyes. Causes serious eye irritation.

Skin contact Causes skin irritation.

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 (inhalation-dust/mist) 49.10 mg/l
ATEmix (inhalation-vapor) 294.10 mg/l

Unknown acute toxicity

1 % of the mixture consists of ingredient(s) of unknown toxicity
0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Limestone 1317-65-3	>5000 mg/kg (rat)	-	-
Carbonic acid, magnesium salt (1:1) 546-93-0	>2000 mg/Kg Rat	-	-
1,2-Propylene glycol	= 20 g/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	LC50 (4h) >44.9 mg/L (Rat)

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57-55-6			
2-(Dimethylamino)ethanol 108-01-0	= 1803 mg/kg (Rat)	= 1220 mg/kg (Rabbit) = 1370 μL/kg (Rabbit)	= 1641 ppm (Rat) 4 h
Quartz 14808-60-7	>2000 mg/kg (Rat)	-	-

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

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	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.

Chemical name	ACGIH	IARC	NTP	OSHA
Quartz 14808-60-7	A2	Group 1	Known	X

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, 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

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Limestone 1317-65-3	CE50 (72h) >200mg/L Algae (Desmodesmus subspicatus)	CL50 (96h) >10000mg/L Fish (Oncorhynchus mykiss)	-	CE50 (48h) >1000 mg/L Daphnia Magna

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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)
2-(Dimethylamino)ethanol 108-01-0	EC50: =35mg/L (72h, Desmodesmus subspicatus)	LC50: =81mg/L (96h, Pimephales promelas)	-	EC50: =98.77mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Chemical name	Partition coefficient
Limestone 1317-65-3	0.9
1,2-Propylene glycol 57-55-6	-1.07
2-(Dimethylamino)ethanol 108-01-0	-0.55

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

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

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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.

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 23-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