Marmoleum Sheet with Topshield2

Class: 09 65 00.00 Finishes: Resilient Flooring

Manufacturer: Forbo Flooring Systems
Address: 8 Maplewood Drive, Hazleton, PA 18202
Contact: Tiffany Hauze, Product Support Specialist
Phone: 570-450-0319
Email: tiffany.hauze@forbo.com
Website: www.forboflooringna.com

Description:
Marmoleum is a homogeneous floor covering made from natural ingredients including linseed oil, rosin binders, wood flour, limestone and dry pigments which are mixed and then calendared onto a natural jute backing. Topshield2 is a high performance finish. Its double UV cured layer technology delivers extraordinary performance and clean and vibrant colors that remain over time. Topshield2 creates a "ready to use" Marmoleum that requires no initial maintenance or polymer application. The surface can be repaired or refreshed in cases of accidents or after years of intensive use.

Release Date: 2015-02-16
Expiry Date: 2018-02-16


SUMMARY DISCLOSURE
The content of this product was assessed for health hazard warnings as required using Pharos.

Residuals Disclosure
- Measured 100 ppm (ideal)
- Measured 1000 ppm
- Predicted by process chemistry
- As per MSDS (1,000 & 10,000 ppm)
- Not disclosed
- Other

Full Disclosure of Intentional Ingredients
- Yes
- No

Full Disclosure of Known Hazards
- Yes
- No

Disclosure Notes

Contents in Descending Order of Quantity
TALL OIL, Cellulose, LIMESTONE; CALCIUM CARBONATE, LINSEED OIL, GUM ROSIN, JUTE FIBER, FERRIC OXIDE YELLOW, Iron oxide, FERRIC OXIDE, TopShield 2 water-based acrylic finish

Hazards
- PBT (Persistent Bioaccumulative Toxic)
- Cancer
- Gene Mutation
- Development
- Reproductive
- Endocrine
- Respiratory
- Neurotoxicity
- Mammal
- Skin or Eye
- Aquatic toxicity
- Land toxicity
- Physical hazard
- Global warming
- Ozone depletion
- Multiple
- Unknown
- N/A
- Yes
- No
- N/A
- Yes
- No

Certifications + Compliance
VOC Emissions
- CA Section 01350 (CHPS) Emission Test - CDPH/EHLB Standard Method V1.1 - Classroom & Office scenario
- Environmental Product Declaration (EPD)
- N/A
- Multi-attribute
The HPD Standard is solely a declaration of product content and direct health hazards associated with exposure to its individual contents. It is not a full assessment of environmental impacts from the life cycle of this product. It is not an assessment of risks associated with actual use of the product. It does not address the potential health impacts of substances used or created during manufacture that do not appear in the final product as residuals, nor substances created during combustion or other degradation processes.

This Health Product Declaration was generated following the requirements of the noted Standard version and is valid for a total of three years after date of issue or three months after a substantive change of product contents occurs. Users should verify that this Health Product Declaration is compliant with the most current version of the HPD Standard. Accuracy of claims made in this Health Product Declaration is the sole responsibility of the listed manufacturer and certifier (if applicable). The HPD Collaborative does not warrant any claim made herein, explicit or implicit. The HPD Standard is an “open standard” developed and managed by the HPD Collaborative, a nonprofit organization. For more information, visit hpdcollaborative.org.

## CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level. Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at www.hpdcollaborative.org/hazardlists.

**GS:** GreenScreen Benchmark; **RC:** Recycled Content, **PC:** Post Consumer, **PI:** Post Industrial (Pre-consumer), **BO:** Both; **Nano:** comprised of nanoscale particles or nanotechnology

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS RN</th>
<th>% weight</th>
<th>GS</th>
<th>RC</th>
<th>Nano</th>
<th>Role</th>
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<td>Hazard B</td>
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</table>

### TALL OIL

- **Name:** TALL OIL
- **CAS RN:** 8002-26-4
- **% weight:** 23.3 %
- **GS:** LT-U
- **RC:** PI
- **Nano:** N
- **Role:** Binder

#### RESPIRATORY

- **AOEC:** Asthmagen (ARs) - sensitizer-induced

#### SKIN SENSITIZE

- **MAK:** Sensitizing Substance Sh - Danger of skin sensitization

### Cellulose

- **Name:** Cellulose
- **CAS RN:** 9004-34-6
- **% weight:** 23.2 %
- **GS:** U
- **RC:** U
- **Nano:** N
- **Role:** Filler

Cellulose is mix of different species of wood. The specific brand name that Forbo Flooring Systems uses in Marmoleum is Lignocel C 120. LIGNOCEL® C 120 is not classified as dangerous according to directive 67/548/EEC, directive 1999/45/EC and regulation 1272/2008 (CLP). Information pertaining to special dangers for human and environment: Adverse physiochemical effects: Capable of causing dust explosions. Adverse human health effects and symptoms: N/A Adverse environmental effects: N/A Other adverse hazards: Substance is combustible. Substance related information: CAS-No: N/A EC-No: N/A INDEX-NO: N/A REACH Registration No: N/A Purity: 100 % Synonyms: N/A Stabilizers: N/A Hazardous impurities: N/A

### LIMESTONE; CALCIUM CARBONATE

- **Name:** LIMESTONE; CALCIUM CARBONATE
- **CAS RN:** 1317-65-3
- **% weight:** 15.4 - 20.4 %
- **GS:** LT-U
- **RC:** N
- **Nano:** N
- **Role:** Filler

None found

### LINSEED OIL

- **Name:** LINSEED OIL
- **CAS RN:** 8001-26-1
- **% weight:** 11.5 %
- **GS:** N
- **RC:** N
- **Nano:** N
- **Role:** Binder

None found

### GUM ROSIN

- **Name:** GUM ROSIN
- **CAS RN:** 8050-09-7
- **% weight:** 11.5 %
- **GS:** LT-U
- **RC:** N
- **Nano:** N
- **Role:** Binder

None found
SKIN IRRITATION
EU H-Statements: H317 May cause an allergic skin reaction

SKIN SENSITIZE
EU R-Phrases: R43: May cause sensitization by skin contact. (also in MAK)

JUTE FIBER
10 %
N  N  Backing
None found
No warnings found on HPD Priority lists

FERRIC OXIDE YELLOW
51274-00-1 0.1 - 4.9 %
LT-U  U  U  Pigment
None found
No warnings found on HPD Priority lists

Iron oxide
1317-61-9 0.1 - 4.9 %
LT-U  U  U  Pigment
CANCER
MAK: Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

FERRIC OXIDE
1309-37-1 0.1 - 4.9 %
2  U  U  Pigment
CANCER
MAK: Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

TopShield 2 water-based acrylic finish
UNC10957 0.1 - 0.3 %
U  U  Finish
None found
No warnings found on HPD Priority lists

TopShield 2 is the UV cured topcoat on Marmoleum creates a "ready to use" flooring that requires no initial maintenance or polymer application. The surface can be repaired or refreshed in cases of accidents or after years of intensive use. Topshield is a unique and trade proprietary formulation to maximize the performance of linoleum floor that yields competitive advantage in the marketplace and therefore composition cannot be fully disclosed. For FULL disclosure of toxicity impacts according to SETAC, etc, please see our Marmoleum EPD with toxicity addendum.

CERTIFICATIONS AND COMPLIANCE
Certifying Party = First: Manufacturer’s self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).
Applicable facilities = Manufacturing sites to which testing applies.

<table>
<thead>
<tr>
<th>Type</th>
<th>Standard or Certification</th>
<th>Certifying Party</th>
<th>Issue Date</th>
<th>Expiry Date</th>
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<tr>
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<td>1st party manufacturer claim</td>
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<td>VOC Content</td>
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Health Product Declaration v1.0 - hpdcollaborative.org - Page 3 of 5
<table>
<thead>
<tr>
<th>Recycled Content</th>
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<th>LCA</th>
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<tr>
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</table>

**ACCESSORY MATERIALS**

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products. Note: This declaration is not intended to address hazards of the installation process.

<table>
<thead>
<tr>
<th>Required or Recommended Product</th>
<th>URL for Companion Health Product Declaration</th>
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<tbody>
<tr>
<td><strong>Condition when required or recommended and/or other notes</strong></td>
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<td>L885 Adhesive</td>
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<tr>
<td>Sustain 885m Adhesive</td>
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<tr>
<td>Adhesive used for installation</td>
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<td>Forbo Neutral pH Cleaner</td>
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<td>Can be used during regular cleaning and routine maintenance.</td>
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<tr>
<td>Forbo Matte Finish</td>
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<tr>
<td>Can be used during routine maintenance.</td>
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<td>Forbo Residential Floor Finish</td>
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<td>Can be used during routine maintenance in a residence.</td>
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<td>Forbo Spraybuff</td>
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**NOTES**

Products lines that fall under the category of Marmoleum Sheet are the following: Marmoleum Real, Marmoleum Fresco, Marmoleum Concrete, Marmoleum Vivace, Marmoleum Striato, Marmoleum Piano, Marmoleum Graphic, Walton Uni, Walton Cirrus, Marmoleum Unexpected Nature and Marmoleum Composition Sheet (MCS).