CLASSIFICATION: 06 83 13.00 Wood, Plastics, and Composites (Framing): Resin Composite Paneling

PRODUCT DESCRIPTION: Bold and exotic, Tiikeri's tiger-like stripes come from strands of sorghum straw. This sustainable surface material's striking pattern will liven any environment, whether it's used vertically in panels or horizontally in flooring. Like all TorZo products, Tiikeri contains no added urea formaldehyde and can contribute to LEED® certification when used in green building projects. Also includes CSI 09 64 29: Resin Infused Composite Flooring; and CSI 09 78 00: Resin Infused Composite Wall Panels.

Section 1: Summary

CONTENT INVENTORY

<table>
<thead>
<tr>
<th>Inventory Reporting Format</th>
<th>Threshold level</th>
<th>Residuals/Impurities</th>
<th>Are All Substances Above the Threshold Indicated?</th>
<th>Characterized</th>
<th>Percent Weight and Role Provided?</th>
<th>Screened</th>
<th>Using Priority Hazard Lists with Results Disclosed?</th>
<th>Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nested Materials Method</td>
<td>100 ppm</td>
<td>Considered</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Basic Method</td>
<td>1,000 ppm</td>
<td>Partially Considered</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Per GHS SDS</td>
<td></td>
<td>Not Considered</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Per OSHA MSDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY | GREENSCREEN SCORE | HAZARD TYPE
--- | --- | --- | --- | ---
TIKERI SURFACE | UNDISCLOSED | NoGS SORGHUM | NoGS CALCIUM CARBONATE | BM-4 WATER | BM-4 METHYLENE BISPHENYL DIISOCYANATE (PURE MDI) | LT-UNK | RES | MUL | SKI | EYE | CAN POLYVINYL ACETATE (PVA) | LT-UNK | POLYMERIC MDI (PMDI) | LT-UNK | RES | MUL | CAN UNDISCLOSED | LT-UNK | SKI | UNDISCLOSED | LT-UNK | SKI | EYE | UNDISCLOSED | LT-UNK |

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

Number of Greenscreen BM-4/BM3 contents ... 2
Contents highest concern GreenScreen Benchmark or List translator Score ... LT-UNK
Nanomaterial ... No

INVENTORY AND SCREENING NOTES:
This Health Product Declaration (HPD) was completed in accordance with the HPD Standard version 2.1, and discloses hazards associated with all substances present at or above 1000 parts per million (ppm) in the finished product, along with the role and percent weight. Therefore, this HPD is consistent with the LEED v4 MR credit Building Product Disclosure and Optimization: Material Ingredient Reporting (Option 1). Substances not "Identified" are those considered proprietary, or are those without a registered identifier.

CERTIFICATIONS AND COMPLIANCE
See Section 3 for additional listings.
VOC emissions: CDPH/EHLB/SM V1.1, 2010 (CA 01350)

CONSISTENCY WITH OTHER PROGRAMS
Pre-checked for LEED v4 Material Ingredients, Option 1

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.1, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-1-standard](http://www.hpd-collaborative.org/hpd-2-1-standard)

### TIKERI SURFACE

**PRODUCT THRESHOLD:** 1000 ppm  
**RESIDUALS AND IMPURITIES CONSIDERED:** Yes

**RESIDUALS AND IMPURITIES NOTES:** Residuals and Impurities were “Considered”, based on HPDC Emerging Best Practices. No residuals or impurities are known or expected to be present at or above the Content Inventory Threshold indicated that have a GS score of BM-1, LT-1, LT-P1 or NoGS, based on information provided in supplier disclosure letters, supplier SDS, and as predicted by process chemistry (Pharos CML). However, since process chemistry has not yet been researched for the Acrylic Resin, all potential residuals of this substance have been disclosed based on manufacturer formulation.

**OTHER PRODUCT NOTES:** Except where otherwise noted, substances used for pigmentation/coloration were each found to be below the threshold for reporting in this HPD (1000 ppm); however, all known pigment substances reviewed returned a GreenScreen score of LT-UNK.

### UNDISCLOSED

<table>
<thead>
<tr>
<th>%: 54.5000 - 55.2000</th>
<th>GS: NoGS</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Acrylic Resin</th>
</tr>
</thead>
</table>

**HAZARDS:** None Found  
**AGENCY(IES) WITH WARNINGS:** No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** This ingredient is held as proprietary by the manufacturer; however, all known hazards have been disclosed. Listed as "inert" material by TOXNET (http://chem.sis.nlm.nih.gov). Not a dangerous substance according to CLP - GHS. This substance is not classified as dangerous according to Directive 67/548/EEC and CE 1272/2008. This material is not considered hazardous by the OSHA Hazard Communication Standard (29 1910.1200).

### SORGHUM

<table>
<thead>
<tr>
<th>%: 40.1000 - 40.5000</th>
<th>GS: NoGS</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Sorghum Board Substrate</th>
</tr>
</thead>
</table>

**HAZARDS:** None Found  
**AGENCY(IES) WITH WARNINGS:** No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** Sorghum straw is post-agricultural by-product from harvest of the sorghum food crop.

### POPLAR

<table>
<thead>
<tr>
<th>%: 2.0000 - 2.3000</th>
<th>GS: NoGS</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Sorghum Board Substrate</th>
</tr>
</thead>
</table>
HAZARDS:
AGENCY(IES) WITH WARNINGS:
None Found
No warnings found on HPD Priority lists

SUBSTANCE NOTES:

CALCIUM CARBONATE
ID: 471-34-1
%: 0.9000 - 2.7000
GS: BM-3
RC: None
NANO: No
ROLE: Sorghum Board Adhesive/Binder

HAZARDS:
AGENCY(IES) WITH WARNINGS:
None Found
No warnings found on HPD Priority lists

SUBSTANCE NOTES: Identified on the US EPA Safer Chemical Ingredient List.

WATER
ID: 7732-18-5
%: 0.5000 - 1.6000
GS: BM-4
RC: None
NANO: No
ROLE: Solvent, Diluent

HAZARDS:
AGENCY(IES) WITH WARNINGS:
None Found
No warnings found on HPD Priority lists

SUBSTANCE NOTES: Most water evaporates off during curing/drying process.

METHYLENE BISPHENYL DIISOCYANATE (PURE MDI)
ID: 101-68-8
%: 0.4000 - 1.2000
GS: LT-UNK
RC: None
NANO: No
ROLE: Sorghum Board Adhesive/Binder

HAZARDS:
AGENCY(IES) WITH WARNINGS:

RESPIRATORY
AOEC - Asthmagens
Asthmagen (G) - generally accepted

REstricted LIST
US EPA - PPT Chemical Action Plans
EPA Chemical of Concern - Action Plan published

SKIN IRRITATION
EU - GHS (H-Statements)
H315 - Causes skin irritation

EYE IRRITATION
EU - GHS (H-Statements)
H319 - Causes serious eye irritation

RESPIRATORY
EU - GHS (H-Statements)
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

CANCER
EU - GHS (H-Statements)
H351 - Suspected of causing cancer

RESPIRATORY
US EPA - PPT Chemical Action Plans
Inhalation sensitizer causing asthma and lung damage

CANCER
MAK
Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

RESPIRATORY
MAK
Sensitizing Substance Sah - Danger of airway & skin sensitization

SKIN SENSITIZE
EU - GHS (H-Statements)
H317 - May cause an allergic skin reaction

SUBSTANCE NOTES:
### POLYVINYL ACETATE (PVA)

**ID:** 9003-20-7  
**%:** 0.4000 - 1.4000  
**GS:** LT-UNK  
**RC:** None  
**NANO:** No  
**ROLE:** Sorghum Board Adhesive/Binder

**HAZARDS:**  
None Found  
No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** Identified on the US EPA Safer Chemical Ingredient List.

### POLYMERIC MDI (PMDI)

**ID:** 9016-87-9  
**%:** 0.3000 - 2.0000  
**GS:** LT-UNK  
**RC:** None  
**NANO:** No  
**ROLE:** Sorghum Board Adhesive/Binder

**HAZARDS:**  
RESPIRATORY  
AOEC - Asthmagens  
Asthmagen (G) - generally accepted  
RESTRICTED LIST  
US EPA - PPT Chemical Action Plans  
EPA Chemical of Concern - Action Plan published  
RESPIRATORY  
US EPA - PPT Chemical Action Plans  
Inhalation sensitizing causing asthma and lung damage  
CANCER  
MAK  
Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels  
RESPIRATORY  
MAK  
Sensitizing Substance Sah - Danger of airway & skin sensitization

**SUBSTANCE NOTES:**

### UNDISCLOSED

**%:** Impurity/Residual  
**GS:** LT-UNK  
**RC:** None  
**NANO:** No  
**ROLE:** Impurity/Residual

**HAZARDS:**  
SKIN SENSITIZE  
MAK  
Sensitizing Substance Sh - Danger of skin sensitization  
SKIN SENSITIZE  
EU - GHS (H-Statements)  
H317 - May cause an allergic skin reaction

**SUBSTANCE NOTES:** Monomer that is expected to be completely converted in the production of the acrylic resin. This ingredient is held as proprietary by the manufacturer; however, all hazards are disclosed.

### UNDISCLOSED

**%:** Impurity/Residual  
**GS:** LT-UNK  
**RC:** None  
**NANO:** No  
**ROLE:** Impurity/Residual

**HAZARDS:**  
SKIN IRRITATION  
EU - GHS (H-Statements)  
H315 - Causes skin irritation
<table>
<thead>
<tr>
<th>EYE IRRITATION</th>
<th>EU - GHS (H-Statements)</th>
<th>H319 - Causes serious eye irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKIN SENSITIZE</td>
<td>MAK</td>
<td>Sensitizing Substance Sh - Danger of skin sensitization</td>
</tr>
<tr>
<td>SKIN SENSITIZE</td>
<td>EU - GHS (H-Statements)</td>
<td>H317 - May cause an allergic skin reaction</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Monomer that is expected to be completely converted in the production of the acrylic resin. This ingredient is held as proprietary by the manufacturer; however, all hazards are disclosed.

**UNDISCLOSED**

<table>
<thead>
<tr>
<th>%: Impurity/Residual</th>
<th>GS: LT-UNK</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Impurity/Residual</th>
</tr>
</thead>
</table>

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** Reaction initiator that is expected to be thoroughly degraded in the finished product. This ingredient is held as proprietary by the manufacturer; however all hazards are disclosed.
Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

### VOC EMISSIONS

<table>
<thead>
<tr>
<th>Certifying Party:</th>
<th>Third Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable Facilities:</td>
<td>Specialty Polymers/TorZo Surfaces Woodburn, OR 97071</td>
</tr>
<tr>
<td>Certificate URL:</td>
<td></td>
</tr>
<tr>
<td>Issue Date:</td>
<td>2013-10-10</td>
</tr>
<tr>
<td>Expiry Date:</td>
<td></td>
</tr>
<tr>
<td>Certifier or Lab:</td>
<td>Eurofins Air Toxics, Inc.</td>
</tr>
</tbody>
</table>

Certificate No.: 18571-1309018. Reference Standard: CDPH/EHLB/SM V1.1, 2010 “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1” (CA 01350). Complies with the ≤1/2 CA CREL and formaldehyde maximum allowable concentration criteria specified in SMV1.1 Table 4.1, when modeled for wallcovering area in the classroom environment and flooring area in the office environment, as defined in Tables 4.2 - 4.5.

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

### TITEBOND II (VOC: 5.5 G/L)

| HPD URL: | No HPD available |

Condition When Recommended or Required and/or Other Notes:

Optional adhesive for gluing Tiikeri during installation.

Section 5: General Notes
## MANUFACTURER INFORMATION

**MANUFACTURER:** TorZo Surfaces  
**ADDRESS:** 2475 Progress Way  
Woodburn OR 97071, USA  
**WEBSITE:** www.TorZoSurfaces.com/products/Tiikeri

**CONTACT NAME:** Jeff Southwell  
**TITLE:** President  
**PHONE:** 503.982.7455  
**EMAIL:** jsouthwell@torzosurfaces.com

## KEY

**OSHA MSDS** Occupational Safety and Health Administration Material Safety Data Sheet  
**GHS SDS** Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

### Hazard Types

- **AQU** Aquatic toxicity  
- **CAN** Cancer  
- **DEV** Developmental toxicity  
- **END** Endocrine activity  
- **EYE** Eye irritation/corrosivity  
- **GEN** Gene mutation  
- **GLO** Global warming  
- **MAM** Mammalian/systemic toxicity  
- **MUL** Multiple hazards  
- **NEU** Neurotoxicity  
- **OZO** Ozone depletion  
- **PBT** Persistent Bioaccumulative Toxic  
- **PHY** Physical Hazard (reactive)  
- **REP** Reproductive toxicity  
- **RES** Respiratory sensitization  
- **SKI** Skin sensitization/irritation/corrosivity  
- **LAN** Land Toxicity  
- **NF** Not found on Priority Hazard Lists

### GreenScreen (GS)

- **BM-4** Benchmark 4 (prefer-safer chemical)  
- **BM-3** Benchmark 3 (use but still opportunity for improvement)  
- **BM-2** Benchmark 2 (use but search for safer substitutes)  
- **BM-1** Benchmark 1 (avoid - chemical of high concern)  
- **BM-U** Benchmark Unspecified (insufficient data to benchmark)  
- **LT-P1** List Translator Possible Benchmark 1  
- **LT-1** List Translator Likely Benchmark 1  
- **LT-UNK** List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)  
- **NoGS** Unknown (no data on List Translator Lists)

### Recycled Types

- **PreC** Preconsumer (Post-Industrial)  
- **PostC** Postconsumer  
- **Both** Both Preconsumer and Postconsumer  
- **Unk** Inclusion of recycled content is unknown  
- **None** Does not include recycled content

### Other Terms

**Inventory Methods:**

- **Nested Method / Material Threshold** Substances listed within each material per threshold indicated per material  
- **Nested Method / Product Threshold** Substances listed within each material per threshold indicated per product  
- **Basic Method / Product Threshold** Substances listed individually per threshold indicated per product

**Nano** Composed of nano scale particles or nanotechnology  
**Third Party Verified** Verification by independent certifier approved by HPDC  
**Preparer** Third party preparer, if not self-prepared by manufacturer  
**Applicable facilities** Manufacturing sites to which testing applies

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The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,  
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.