CLASSIFICATION: Acoustical Ceiling

PRODUCT DESCRIPTION: FeltWorks Blades panels provide a soft visual and quieting acoustics to visually define spaces and control noise. Two unique installation options offer maximum design flexibility to meet project needs. FeltWorks Blades are available in both predesigned kits and standard rectangular panel options in 15 colors.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format
- Nested Materials Method
- Basic Method

Threshold Disclosed Per
- Material
- Product

Threshold level
- 100 ppm
- 1,000 ppm
- Per GHS SDS
- Per OSHA MSDS
- Other

Residuals/Impurities
- Considered
- Partially Considered
- Not Considered

All Substances Above the Threshold Indicated Are:
- Characterized Yes
  - No Ex/SC
- Yes Ex/SC
- Yes
- No

% weight and role provided for all substances.

Screened
- Yes Ex/SC
- Yes
- No

All substances screened using Priority Hazard Lists with results disclosed.

Identified
- Yes Ex/SC
- Yes
- No

All substances disclosed by Name (Specific or Generic) and Identifier.

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
--- | --- | --- | --- | ---
FELTWORKS™ BLADES | POLYETHYLENE TEREPTHALATE | LT-UNK | 1H-INDENE-1,3(2H)-DIONE, 2-(3-HYDROXY-2-QUINOLINYL)- | LT-1

Number of Greenscreen BM-4/BM3 contents ... 0
Contents highest concern GreenScreen Benchmark or List translator Score ... LT-1
Nanomaterial ... No

INVENTORY AND SCREENING NOTES:
Residuals / impurities in select raw materials are quantitatively measured and are displayed in the HPD when greater than 100ppm.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE

VOC emissions: UL Greenguard Gold
Other: ILFI Declare - Red List Free

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified?
- Yes
- No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #:
SCREENING DATE: 2019-09-04
PUBLISHED DATE: 2019-09-04
EXPIRY DATE: 2022-09-04
Section 2: Content in Descending Order of Quantity

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 2.1.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-1-standard

FELTWORKS™ BLADES

PRODUCT THRESHOLD: 100 ppm  RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals / impurities in select raw materials are quantitatively measured and are displayed in the HPD when greater than 100ppm.

OTHER PRODUCT NOTES: More information on this product can be found at www.armstrongceilings.com

POLYETHYLENE TEREPHTHALATE

ID: 25038-59-9  HAZARD SCREENING METHOD: Pharos Chemical and Materials Library  HAZARD SCREENING DATE: 2019-09-04

%- 95.00 - 100.00  GS: LT-UNK  RC: PostC  NANO: Unknown  ROLE: Fiber for Panel structure

None found

SUBSTANCE NOTES: Feltworks uses recycled PET from a variety of sources (e.g. PET bottles).

1H-INDENE-1,3(2H)-DIONE, 2-(3-HYDROXY-2-QUINOLINYL)-

ID: 7576-65-0  HAZARD SCREENING METHOD: Pharos Chemical and Materials Library  HAZARD SCREENING DATE: 2019-09-04

%- 0.00 - 5.00  GS: LT-UNK  RC: None  NANO: Unknown  ROLE: Finish oil

None found

SUBSTANCE NOTES: Fiber processing agent

2,7-NAPHTHALENEDISULFONIC ACID, 5-(ACETYLAMINO)-3-[[4-(ACETYLAMINO)PHENYL]AZO]-4-HYDROXY-, DISODIUM SALT

ID: 4321-69-1  HAZARD SCREENING METHOD: Pharos Chemical and Materials Library  HAZARD SCREENING DATE: 2019-09-04

%- 0.00 - 5.00  GS: LT-UNK  RC: None  NANO: Unknown  ROLE: Pigment
<table>
<thead>
<tr>
<th>Substance</th>
<th>ID</th>
<th>HAZARD SCREENING METHOD</th>
<th>HAZARD SCREENING DATE</th>
<th>%:</th>
<th>GS:</th>
<th>RC:</th>
<th>NANO:</th>
<th>ROLE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3H-INDOL-3-ONE, 2-(1,3-DIHYDRO-3-OXO-2H-INDOL- 2-YLIDENE)-1,2- DIHYDRO-</td>
<td>482-89-3</td>
<td>Pharos Chemical and Materials Library</td>
<td>2019-09-04</td>
<td>0.00 - 5.00</td>
<td>LT-UNK</td>
<td>None</td>
<td>Unknown</td>
<td>Pigment</td>
</tr>
<tr>
<td>BLUE TINT</td>
<td>28699-96-9</td>
<td>Pharos Chemical and Materials Library</td>
<td>2019-09-04</td>
<td>0.00 - 5.00</td>
<td>NoGS</td>
<td>None</td>
<td>Unknown</td>
<td>Pigment</td>
</tr>
<tr>
<td>CARBON BLACK</td>
<td>1333-86-4</td>
<td>Pharos Chemical and Materials Library</td>
<td>2019-09-04</td>
<td>0.00 - 5.00</td>
<td>LT-1</td>
<td>None</td>
<td>Unknown</td>
<td>Pigment</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:**

- Pigment of red/purple. Substance not present in all colors.
- Yellow Pigment. Substance is not present in all colors.
- Substance not found in all colors.
### TITANIUM DIOXIDE

**ID:** 13463-67-7

**HAZARD SCREENING METHOD:** Pharos Chemical and Materials Library

**HAZARD SCREENING DATE:** 2019-09-04

**%:** 0.00 - 5.00

**GS:** LT-1

**RC:** None

**NANO:** Unknown

**ROLE:** Pigment

<table>
<thead>
<tr>
<th>HAZARD TYPE</th>
<th>AGENCY AND LIST TITLES</th>
<th>WARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANCER</td>
<td>US CDC - Occupational Carcinogens</td>
<td>Occupational Carcinogen</td>
</tr>
<tr>
<td>CANCER</td>
<td>CA EPA - Prop 65</td>
<td>Carcinogen - specific to chemical form or exposure route</td>
</tr>
<tr>
<td>CANCER</td>
<td>IARC</td>
<td>Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources</td>
</tr>
<tr>
<td>ENDOCRINE</td>
<td>TEDX - Potential Endocrine Disruptors</td>
<td>Potential Endocrine Disruptor</td>
</tr>
<tr>
<td>CANCER</td>
<td>MAK</td>
<td>Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value</td>
</tr>
<tr>
<td>CANCER</td>
<td>MAK</td>
<td>Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Substance is not present in all colors. Titanium Dioxide is bound within the coating and is not inhalable. Accordingly, it is excluded from regulatory hazard lists. Identified on the US EPA Safer Chemical List. It is not in a respirable form in the final product.

### PHOSPHONIC ACID, OCTYL-, MONOETHYL ESTER, POTASSIUM SALT

**ID:** 68134-28-1

**HAZARD SCREENING METHOD:** Pharos Chemical and Materials Library

**HAZARD SCREENING DATE:** 2019-09-04

**%:** 0.00 - 1.00

**GS:** NoGS

**RC:** None

**NANO:** Unknown

**ROLE:** Processing oil

<table>
<thead>
<tr>
<th>HAZARD TYPE</th>
<th>AGENCY AND LIST TITLES</th>
<th>WARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>None found</td>
<td></td>
<td>No warnings found on HPD Priority Hazard Lists</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Finish oil used for processing
**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>UL Greenguard Gold</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CERTIFYING PARTY:</strong></td>
<td>Third Party</td>
</tr>
<tr>
<td><strong>APPLICABLE FACILITIES:</strong></td>
<td>all</td>
</tr>
<tr>
<td><strong>CERTIFICATE URL:</strong></td>
<td><a href="https://www.armstrongceilings.com/commercial/en-us/performance/sustainable-building-design/voc-certificates.html">https://www.armstrongceilings.com/commercial/en-us/performance/sustainable-building-design/voc-certificates.html</a></td>
</tr>
<tr>
<td><strong>ISSUE DATE:</strong></td>
<td>2019-09-04</td>
</tr>
<tr>
<td><strong>EXPIRY DATE:</strong></td>
<td>2020-02-16</td>
</tr>
<tr>
<td><strong>CERTIFIER OR LAB:</strong></td>
<td>UL Environment</td>
</tr>
</tbody>
</table>

**CERTIFICATION AND COMPLIANCE NOTES:**

### OTHER

<table>
<thead>
<tr>
<th>Certifying Party</th>
<th>ILFI Declare - Red List Free</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CERTIFYING PARTY:</strong></td>
<td>Self-declared</td>
</tr>
<tr>
<td><strong>APPLICABLE FACILITIES:</strong></td>
<td>all</td>
</tr>
<tr>
<td><strong>CERTIFICATE URL:</strong></td>
<td><a href="https://www.armstrongceilings.com/commercial/en-us/performance/sustainable-building-design/declare-labels-commercial-ceilings.html#redirect_term=Declare">https://www.armstrongceilings.com/commercial/en-us/performance/sustainable-building-design/declare-labels-commercial-ceilings.html#redirect_term=Declare</a></td>
</tr>
<tr>
<td><strong>ISSUE DATE:</strong></td>
<td>2019-10-01</td>
</tr>
<tr>
<td><strong>EXPIRY DATE:</strong></td>
<td>2020-10-01</td>
</tr>
<tr>
<td><strong>CERTIFIER OR LAB:</strong></td>
<td>ILFI</td>
</tr>
</tbody>
</table>

**CERTIFICATION AND COMPLIANCE NOTES:** Red List Free

**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.

No accessories are required for this product.

**Section 5: General Notes**

This HPD is provided solely for the intended recipient in connection with its assessment of products and for no other purpose. In providing information, AWI expresses no opinion and makes no representations as to the applicability, suitability, accuracy or completeness of the declaration form, or the standards, rules, classifications, warnings or criteria utilized or referenced therein. Information provided herein is qualified in the entirety by reference to the applicable product Safety Data Sheet (SDS) which can be located at www.armstrongceilings.com, as well as by the additional ingredient information provided for specified substances. Please refer to the Armstrong Commercial Ceilings website for more information on this product.
MANUFACTURER INFORMATION

MANUFACTURER: Armstrong World Industries
ADDRESS: 2500 Columbia Avenue
Building 5B
Lancaster PA 17603, United States
WEBSITE: armstrongceilings.com

CONTACT NAME: Anita Snader
TITLE: Sustainability Manager
PHONE: 17173966486
EMAIL: alsnader@armstrongceilings.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/organ 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

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.