Section 1: Summary

Basic Method / Product Threshold

Inventory Reporting Format
- Nested Materials Method
- Basic Method

Threshold Disclosed Per
- Material
- Product

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.

CONTENT INVENTORY

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>SUBSTANCE</th>
<th>RESIDUAL OR IMPURITY</th>
<th>GREENSCREEN SCORE</th>
<th>HAZARD TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULTIMA HRC COMMERCIAL CEILINGS</td>
<td>MINERAL WOOL (BIOINSOLUBLE, WITH ALKALINE OXIDE AND ALKALI EARTH OXIDE CONTENT GREATER THAN 18 % BY WEIGHT)</td>
<td>LT-UNK</td>
<td>CAN</td>
<td>TITANIUM DIOXIDE</td>
</tr>
<tr>
<td></td>
<td>CELLULOSE PULP</td>
<td>LT-UNK</td>
<td>CAN</td>
<td>END FIBERGLASS</td>
</tr>
<tr>
<td></td>
<td>STARCH</td>
<td>LT-UNK</td>
<td>CAN</td>
<td>STARCH</td>
</tr>
<tr>
<td></td>
<td>KAOLIN CLAY</td>
<td>LT-UNK</td>
<td>CAN</td>
<td>LIMESTONE; CALCIUM CARBONATE</td>
</tr>
<tr>
<td></td>
<td>HYDROXYETHYL STARCH 130/0.4 [USAN]</td>
<td>NoGS</td>
<td></td>
<td>POLY(VINYL ALCOHOL)</td>
</tr>
<tr>
<td></td>
<td>KAOLIN, CALCINED</td>
<td>LT-UNK</td>
<td>CAN</td>
<td>ALUMINA TRIHYDRATE</td>
</tr>
<tr>
<td></td>
<td>QUARTZ</td>
<td>LT-UNK</td>
<td>CAN</td>
<td>AMORPHOUS</td>
</tr>
<tr>
<td></td>
<td>CYANURATE</td>
<td>BM-2</td>
<td>RES</td>
<td>MELAMINE</td>
</tr>
<tr>
<td></td>
<td>SILICA</td>
<td>LT-P</td>
<td>CAN</td>
<td>UNDISCLOSED</td>
</tr>
<tr>
<td></td>
<td>PERLITE (PERLITE)</td>
<td>LT-UNK</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number of Greenscreen BM-4/BM3 contents........... 0
Contents highest concern GreenScreen Benchmark or List translator Score.............. BM-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 1000ppm.

VOC CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE


Other: International Living Future Institute - Ultima AirGuard Declare Label

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed

PREPARER: Self-Prepared
VERIFIER: 
VERIFICATION #: 
SCREENING DATE: 2017-09-21
PUBLISHED DATE: 2017-09-21
EXPIRY DATE: 2020-09-21

Armstrong Commercial Ceilings Ultima High Recycled Content
www.hpd-collaborative.org
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

### ULTIMA HRC COMMERCIAL CEILINGS

**PRODUCT THRESHOLD:** 1000 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 1000ppm.

**OTHER PRODUCT NOTES:**

#### MINERAL WOOL (BIOINSOLUBLE, WITH ALKALINE OXIDE AND ALKALI EARTH OXIDE CONTENT GREATER THAN 18 % BY WEIGHT)

**ID:** 65997-17-3  
**%:** 30.0000 - 70.0000  
**GS:** LT-UNK  
**RC:** None  
**NANO:** No  
**ROLE:** Core

**HAZARDS:**
- **CANCER**
  - EU - R-phrases: R40 - Limited Evidence of Carcinogenic Effects
  - EU - GHS (H-Statements): H351 - Suspected of causing cancer

**SUBSTANCE NOTES:** Mineral fiber is not classified as a carcinogen by IARC, NTP, CA Proposition 65 or OSHA. The R40 and H351 phrases below are triggered by a special provision “Note Q”, found only in the EU’s CLP Regulation and for which the applicability to the provided products is neither certain nor adopted by the manufacturer. The world’s leading institute on carcinogen classification, the International Agency for Research on Cancer (IARC) has determined that there is insufficient evidence to classify this material as carcinogenic. The EU’s CLP Regulation focused on creating criteria to characterize biosolubility, but did not provide data to support a causal relationship between the EU test method and actual carcinogenicity.

#### CELLULOSE PULP

**ID:** 65996-61-4  
**%:** 10.0000 - 30.0000  
**GS:** NoGS  
**RC:** None  
**NANO:** No  
**ROLE:** Core Binder

**HAZARDS:**
- None Found

**SUBSTANCE NOTES:** Binder ingredient

#### TITANIUM DIOXIDE

**ID:** 13463-67-7  
**%:** 1.0000 - 5.0000  
**GS:** LT-1  
**RC:** None  
**NANO:** No  
**ROLE:** Pigment

**HAZARDS:**
- **CANCER**
  - US CDC - Occupational Carcinogens: Occupational Carcinogen
### CANCER
- **CA EPA - Prop 65**
  - Carcinogen - specific to chemical form or exposure route
- **IARC**
  - Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
- **MAK**
  - Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value

### ENDOCRINE
- **TEDX - Potential Endocrine Disruptors**
  - Potential Endocrine Disruptor

**SUBSTANCE NOTES:** Titanium Dioxide is bound within the coating and is not inhalable. Accordingly, it is excluded from regulatory hazard lists. It is not in a respirable form in the final product.

### FIBERGLASS
**ID:** 65997-17-3

<table>
<thead>
<tr>
<th>%</th>
<th>GB</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0000 - 5.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Fiber Core</td>
</tr>
</tbody>
</table>

**HAZARDS:**
- **AGENCY(IES) WITH WARNINGS:**
- **CANCER**
  - EU - R-phrases: R40 - Limited Evidence of Carcinogenic Effects
  - EU - GHS (H-Statements): H351 - Suspected of causing cancer

**SUBSTANCE NOTES:** This ingredient is not inhalable, it is excluded from regulatory hazard lists. It is not in a reparable form in the final product.

### STARCH
**ID:** 9005-25-8

<table>
<thead>
<tr>
<th>%</th>
<th>GB</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0000 - 10.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Binder</td>
</tr>
</tbody>
</table>

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

**SUBSTANCE NOTES:** Binder in this product

### KAOLIN CLAY
**ID:** 1332-58-7

<table>
<thead>
<tr>
<th>%</th>
<th>GB</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0000 - 10.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Filler</td>
</tr>
</tbody>
</table>

**HAZARDS:**
- **AGENCY(IES) WITH WARNINGS:**
- **CANCER**
  - MAK: Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

**SUBSTANCE NOTES:** Kaolin clay used in this product in not regulated as a hazardous substance. MAK denotes German occupational exposure.

### LIMESTONE; CALCIUM CARBONATE
**ID:** 1317-65-3

<table>
<thead>
<tr>
<th>%</th>
<th>GB</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0000 - 5.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Filler</td>
</tr>
</tbody>
</table>

**HAZARDS:**
- **AGENCY(IES) WITH WARNINGS:**
- **CANCER**
  - MAK: Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
None Found  No warnings found on HPD Priority lists

SUBSTANCE NOTES: Filler in product

HYDROXYETHYL STARCH 130/0.4 [USAN]  ID: 9005-27-0

%: 0.1000 - 1.0000  GS: NoGS  RC: None  NANO: No  ROLE: Binder

None Found  No warnings found on HPD Priority lists

SUBSTANCE NOTES: Binder

POLY(VINYL ALCOHOL)  ID: 9002-89-5

%: 0.1000 - 1.0000  GS: LT-UNK  RC: None  NANO: No  ROLE: Binder

None Found  No warnings found on HPD Priority lists

SUBSTANCE NOTES: None

ETHYLENE COPOLYMER  ID: 26713-18-8

%: 0.1000 - 1.0000  GS: NoGS  RC: None  NANO: No  ROLE: Adhesive

None Found  No warnings found on HPD Priority lists

SUBSTANCE NOTES: None

KAOLIN, CALCINED  ID: 92704-41-1

%: 0.0100 - 1.0000  GS: LT-UNK  RC: None  NANO: No  ROLE: Filler

None Found  No warnings found on HPD Priority lists

SUBSTANCE NOTES: None

QUARTZ  ID: 14808-60-7

%: 0.0100 - 5.0000  GS: LT-1  RC: None  NANO: No  ROLE: Filler
### HAZARDS:

<table>
<thead>
<tr>
<th>CANCER</th>
<th>AGENCY(IES) WITH WARNINGS:</th>
<th>occupational</th>
<th>WARNING</th>
<th>HAZARDS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>US CDC - Occupational Carcinogens</td>
<td>Occupational Carcinogen</td>
<td>Cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA EPA - Prop 65</td>
<td>Carcinogen - specific to chemical form or exposure route</td>
<td>Cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US NIH - Report on Carcinogens</td>
<td>Known to be Human Carcinogen (respirable size - occupational setting)</td>
<td>Cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAK</td>
<td>Carcinogen Group 1 - Substances that cause cancer in man</td>
<td>Cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IARC</td>
<td>Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources</td>
<td>Cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Zealand - GHS</td>
<td>6.7A - Known or presumed human carcinogens</td>
<td>Cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia - GHS</td>
<td>H350 - May cause cancer</td>
<td>Cancer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Quartz is bound within the coating and is not inhalable. Accordingly, it is excluded from regulatory hazard lists. It is not in a respirable form in the final product.

### ALUMINA TRIHYDRATE

**ID:** 21645-51-2

| %: | 0.0100 - 1.0000 | GS: BM-2 | RC: None | NANO: No | ROLE: Filler |

**HAZARDS:**

| RESPIRATORY | AOECC - Asthmagens | Asthmagen (ARs) - sensitizer-induced - inhalable forms only |

**SUBSTANCE NOTES:** This ingredient is bound within the coating and not inhalable. Accordingly, it is excluded from regulatory hazard lists. It is not in a respirable form in the final product.

### MELAMINE CYANURATE

**ID:** 37640-57-6

| %: | 0.0100 - 1.0000 | GS: BM-1 | RC: None | NANO: No | ROLE: Adhesive |

**HAZARDS:**

| None Found | No warnings found on HPD Priority lists |

**SUBSTANCE NOTES:** Adhesive

### SILICA, AMORPHOUS

**ID:** 7631-86-9

| %: | 0.0100 - 1.0000 | GS: LT-P1 | RC: None | NANO: No | ROLE: Filler |

**HAZARDS:**

| CANCER | Japan - GHS | Carcinogenicity - Category 1A |

**SUBSTANCE NOTES:** Silica is bound within the coating and not inhalable. It is not in a respirable form in the final product.
<table>
<thead>
<tr>
<th><strong>UNDISCLOSED</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 0.0100 - 0.3000</td>
<td>GB: BM-2</td>
</tr>
</tbody>
</table>

**HAZARDS:**

**RESPIRATORY**

AOEC - Asthmagens

Asthmagen (ARs) - sensitizer-induced - inhalable forms only

**SUBSTANCE NOTES:** This ingredient has been screened and no hazards are reported.

<table>
<thead>
<tr>
<th><strong>PERLITE (PERLITE)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 0.0000 - 10.0000</td>
<td>GB: LT-UNK</td>
</tr>
</tbody>
</table>

**HAZARDS:**

None Found

No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** None

---

### 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


**CERTIFYING PARTY:** Third Party

**APPLICABLE FACILITIES:**

**CERTIFICATE URL:**


**CERTIFICATION AND COMPLIANCE NOTES:**

#### LCA

**CERTIFYING PARTY:** Third Party

**APPLICABLE FACILITIES:**

**CERTIFICATE URL:**

https://www.armstrongceilings.com/content/dam/armstrongceilings/commercial/north-america/epds/ultima-epd.pdf

**CERTIFICATION AND COMPLIANCE NOTES:** Environmental Product Declaration - Product Specific

#### Environmental Product Declaration

**CERTIFYING PARTY:** UL Environment

**ISSUE DATE:** 2016-03-31

**EXPIRY DATE:** 2020-03-31

**CERTIFICATE URL:**

https://www.armstrongceilings.com/content/dam/armstrongceilings/commercial/north-america/epds/ultima-epd.pdf

**CERTIFICATION AND COMPLIANCE NOTES:** Environmental Product Declaration - Product Specific

#### OTHER

International Living Future Institute - Ultima AirGuard Declare Label
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.

ARMSTRONG SUSPENSION SYSTEMS


CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:
All Armstrong ceiling panels can be combined with Armstrong Suspension systems to create a total ceiling solution.

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. Additional Ingredient Information for Specified Substances: (if ingredient is listed in content inventory, include this note in substance notes below ingredient.)

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: Armstrong World Industries
ADDRESS: 2500 Columbia Ave.
Lancaster PA 17603, USA
WEBSITE: www.armstrongceilings.com

CONTACT NAME: Armstrong Technical Services
TITLE: Techline
PHONE: 1-877-276-7876
EMAIL: techline@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

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

### GreenScreen (GS)

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

### Recycled Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreC</td>
<td>Preconsumer (Post-Industrial)</td>
</tr>
<tr>
<td>PostC</td>
<td>Postconsumer</td>
</tr>
<tr>
<td>Both</td>
<td>Both Preconsumer and Postconsumer</td>
</tr>
<tr>
<td>Unk</td>
<td>Inclusion of recycled content is unknown</td>
</tr>
<tr>
<td>None</td>
<td>Does not include recycled content</td>
</tr>
</tbody>
</table>

### 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.