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

Are All Substances Above the Threshold Indicated:
- Yes
- No

Characterized

Percent Weight and Role Provided?
- Yes
- No

Screened

Using Priority Hazard Lists with Results Disclosed?
- Yes
- No

Identified

Name and Identifier Provided?
- Yes
- No

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.

INVENTORY AND SCREENING NOTES:

Residuals/impurities in select raw materials are quantitatively measured, and are displayed in the HPD when greater than 1000ppm.

INVENTORY AND SCREENING NOTES:

Residuals/impurities in select raw materials are quantitatively measured, and are displayed in the HPD when greater than 1000ppm.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE

See Section 3 for additional listings.

Other: International Living Future Institute - Metalworks Blades
LCA: Environmental Product Declaration for Metalworks Blades

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed

Third Party Verified?
- Yes
- No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2017-09-21
PUBLISHED DATE: 2017-09-21
EXPIRY DATE: 2020-09-21
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, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

METALWORKS BLADES CLASSICS (M1 - UNPERFORATED)

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: Residuals / impurities in select raw materials are quantitatively measured and are displayed in the HPD when greater than 1000ppm.

ALUMINUM

<table>
<thead>
<tr>
<th>%: 85.0000 - 95.0000</th>
<th>GS: LT-P1</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Base ingredient</th>
</tr>
</thead>
</table>

HAZARDS:

RESPIRATORY
AOEC - Asthmagens

ENDOCRINE
TEDX - Potential Endocrine Disruptors

PHYSICAL HAZARD (REACTIVE)
EU - GHS (H-statements)

SUBSTANCE NOTES: Hazards noted pertain to aluminum in a powder or fumigated state. Axiom is an extruded aluminum product. Accordingly, the hazards noted would not pertain to aluminum in this form.

TITANIUM DIOXIDE

<table>
<thead>
<tr>
<th>%: 1.0000 - 10.0000</th>
<th>GS: LT-1</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Pigment</th>
</tr>
</thead>
</table>

HAZARDS:

CANCER
US CDC - Occupational Carcinogens

ENDOCRINE
TEDX - Potential Endocrine Disruptors

SUBSTANCE NOTES: Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value

Armstrong Metalworks Blades Classics (M1 - Unperforated) www.hpd-collaborative.org HPD v2.1 created via HPDC Builder Page 2 of 6
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.

### ALUMINUM (PYROTECHNICAL POWDER) (ALUMINUM (PYROTECHNICAL POWDER))

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1000 - 1.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Ingredient in base material</td>
</tr>
</tbody>
</table>

**HAZARDS:**

<table>
<thead>
<tr>
<th>AGENCY(IES) WITH WARNINGS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None Found</td>
<td>No warnings found on HPD Priority lists</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Ingredient in base material

### TALC

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1000 - 1.0000</td>
<td>BM-1</td>
<td>None</td>
<td>No</td>
<td>Filler</td>
</tr>
</tbody>
</table>

**HAZARDS:**

<table>
<thead>
<tr>
<th>AGENCY(IES) WITH WARNINGS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CANCER</td>
<td>MAK Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** None

### C.I. PIGMENT BLACK 28

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0100 - 0.1000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Pigment</td>
</tr>
</tbody>
</table>

**HAZARDS:**

<table>
<thead>
<tr>
<th>AGENCY(IES) WITH WARNINGS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None Found</td>
<td>No warnings found on HPD Priority lists</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** None

### SILICA GEL

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0100 - 0.1000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Thicker</td>
</tr>
</tbody>
</table>

**HAZARDS:**

<table>
<thead>
<tr>
<th>AGENCY(IES) WITH WARNINGS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None Found</td>
<td>No warnings found on HPD Priority lists</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** None
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.

**OTHER**

**CERTIFYING PARTY:** Third Party  
**APPLICABLE FACILITIES:** All  
**CERTIFICATE URL:** https://access.living-future.org/metalworks-blades  
**CERTIFICATION AND COMPLIANCE NOTES:** Red List Free

**International Living Future Institute - Metalworks Blades**

**CERTIFYING PARTY:** Third Party  
**APPLICABLE FACILITIES:** All  
**CERTIFICATE URL:** https://access.living-future.org/metalworks-blades  
**ISSUE DATE:** 2017-04-01  
**EXPIRY DATE:** 2018-04-01  
**CERTIFIER OR LAB:** ILFI

**LCA**

**Environmental Product Declaration for Metalworks Blades**

**CERTIFYING PARTY:** Third Party  
**APPLICABLE FACILITIES:** All  
**CERTIFICATE URL:** https://www.armstrongceilings.com/content/dam/armstrongceilings/commercial/north-america/epds/metalworks-epd.pdf  
**ISSUE DATE:** 2016-03-31  
**EXPIRY DATE:** 2020-03-31  
**CERTIFIER OR LAB:** UL Environment

**CERTIFICATION AND COMPLIANCE NOTES:**

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**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.

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**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. https://www.armstrongceilings.com/commercial/en-us/commercial-ceilings-walls/metalworks-blades-classics-ceilings.html

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**Section 6: References**

**MANUFACTURER INFORMATION**

Armstrong Metalworks Blades Classics (M1 - Unperforated)  
www.hpd-collaborative.org
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

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.