

HPD UNIQUE IDENTIFIER: 1026394112

CLASSIFICATION: 09 30 13 Ceramic Tiling

**PRODUCT DESCRIPTION:** ARDEX X 77™ MICROTREC® Fiber Reinforced Tile and Stone Mortar is a high-performance, microfiber-reinforced, polymer-modified mortar formulated especially for large format tile installations. Use to install porcelain, glass, quarry, ceramic and most natural stone tiles\* over interior or exterior concrete and masonry floor and wall surfaces. Also use for interior applications over exterior-grade plywood. ARDEX X 77 is ideal for use in swimming pools and fountains and over in-floor heating systems and is recommended for all tile sizes, including mosaics.

**Section 1: Summary**

**Basic Method / Product Threshold**

**CONTENT INVENTORY**

<b>Inventory Reporting Format</b>	<b>Threshold Level</b>	<b>Residuals/Impurities Evaluation</b>	<i>For all contents above the threshold, the manufacturer has:</i>
<input type="radio"/> Nested Materials Method	<input type="radio"/> 100 ppm	<input checked="" type="radio"/> Completed	<b>Characterized</b> <input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="radio"/> Basic Method	<input checked="" type="radio"/> 1,000 ppm	<input type="radio"/> Partially Completed	<i>Provided weight and role.</i>
<b>Threshold Disclosed Per</b>	<input type="radio"/> Per GHS SDS	<input type="radio"/> Not Completed	<b>Screened</b> <input checked="" type="radio"/> Yes <input type="radio"/> No
<input type="radio"/> Material	<input type="radio"/> Other	<b>Explanation(s) provided :</b>	<i>Provided screening results using HPDC-approved methods.</i>
<input checked="" type="radio"/> Product		<input checked="" type="radio"/> Yes <input type="radio"/> No	<b>Identified</b> <input type="radio"/> Yes <input checked="" type="radio"/> No
			<i>Provided name and CAS RN or other identifier.</i>

**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.

**PRODUCT | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY**  
**GREENSCREEN SCORE | HAZARD TYPE**  
**ARDEX X 77 [ QUARTZ BM-1 ]** CAN | MAM | GEN **PORTLAND CEMENT**  
**LT-P1** | CAN | END | MAM **ETHYLENEVINYLACETATE COPOLYMER**  
**LT-UNK SILICA FUME LT-P1** | CAN | MAM **UNDISCLOSED BM-3** | EYE  
**LIMESTONE (PRIMARY CASRN IS 1317-65-3) BM-3dg UNDISCLOSED**  
**LT-P1 CELLULOSE BM-2** ]

Number of Greenscreen BM-4/BM3 contents ... 2  
 Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... BM-1, LT-P1  
 Nanomaterial ... No

**INVENTORY AND SCREENING NOTES:**

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

**VOLATILE ORGANIC COMPOUND (VOC) CONTENT**

VOC Content data is not applicable for this product category.

**CERTIFICATIONS AND COMPLIANCE** *See Section 3 for additional listings.*

VOC emissions: UL/GreenGuard Gold Certified  
 VOC content: SCAQMD Rule 1168 Adhesive and Sealant Applications - Adhesives for Indoor Carpet, Carpet Pad Subfloor, VCT & Asphalt Tile, Dry Wall & Panel and Cove Base, as amended 1/7/05)

**CONSISTENCY WITH OTHER PROGRAMS**

Pre-checked for LEED v4 Option 1.  
 Pre-checked for LEED v4.1 Option 1.

Third Party Verified? <input type="radio"/> Yes <input checked="" type="radio"/> No	PREPARER: Self-Prepared VERIFIER: VERIFICATION #:	SCREENING DATE: 2023-11-15 PUBLISHED DATE: 2023-11-15 EXPIRY DATE: 2026-11-15
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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 2.3, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-3-standard](http://www.hpd-collaborative.org/hpd-2-3-standard)

**ARDEX X 77**

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

RESIDUALS AND IMPURITIES NOTES: ARDEX uses quarry-extracted ingredients, such as quartz, cement, limestone, and gypsum. As a result, suppliers of these ingredients indicate that raw materials may contain residual earthen material, such as sand, in extremely small quantities. These materials are listed on suppliers' Safety Data Sheets (SDS) and they are accounted for on the Safety Data Sheets of ARDEX products.

OTHER PRODUCT NOTES:

**QUARTZ**

ID: 14808-60-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-11-15 8:23:13

?: 30.0000 - 60.0000

GreenScreen: BM-1

RC: None

NANO: No

SUBSTANCE ROLE: Filler

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)
CAN	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CAN	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
CAN	IARC	Group 1 - Agent is Carcinogenic to humans
CAN	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1A]
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]
CAN	GHS - New Zealand	Carcinogenicity category 1
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The exact percentage has been withheld by the manufacturer as a trade secret.

**PORTLAND CEMENT**

ID: 65997-15-1

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-11-15 8:23:13

#: 40.0000 - 55.0000

GreenScreen: LT-P1

RC: None

NANO: No

SUBSTANCE ROLE: Binder

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The exact percentage has been withheld by the manufacturer as a trade secret.

### ETHYLENEVINYLACETATE COPOLYMER

ID: 24937-78-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-11-15 8:23:13**

%: **1.0000 - 5.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Viscosity modifier**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

### SILICA FUME

ID: 69012-64-2

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-11-15 8:23:13**

%: **1.0000 - 5.0000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Filler**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

### UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-11-15 8:23:13**

%: **1.0000 - 5.0000** GreenScreen: **BM-3** RC: **None** NANO: **No** SUBSTANCE ROLE: **Accelerator**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	GHS - New Zealand	Eye irritation category 2
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE Safer Chemicals Ingredients list (SCIL) Enzymes and Stabilizers - Green Circle (Verified Low Concern)

SUBSTANCE NOTES: The identity of this ingredient has been withheld by the manufacturer as a trade secret.

### LIMESTONE (PRIMARY CASRN IS 1317-65-3)

ID: **359415-48-8**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-11-15 8:23:13**

%: **1.0000 - 5.0000** GreenScreen: **BM-3dg** RC: **None** NANO: **No** SUBSTANCE ROLE: **Filler**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

**UNDISCLOSED** ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-11-15 8:23:13**

%: **0.1000 - 1.0000**      GreenScreen: **LT-P1**      RC: **None**      NANO: **No**      SUBSTANCE ROLE: **Filler**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The identity of this ingredient has been withheld by the manufacturer as a trade secret.

**CELLULOSE** ID: **9032-42-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-11-15 8:23:13**

%: **0.1000 - 1.0000**      GreenScreen: **BM-2**      RC: **None**      NANO: **No**      SUBSTANCE ROLE: **Viscosity modifier**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

## 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	UL/GreenGuard Gold Certified	
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: All ARDEX manufacturing facilities. CERTIFICATE URL: <a href="http://spot.ul.com">http://spot.ul.com</a> CERTIFICATION AND COMPLIANCE NOTES:	ISSUE DATE: 2023-05-31 EXPIRY DATE:	CERTIFIER OR LAB: UL Environment
VOC CONTENT	SCAQMD Rule 1168 Adhesive and Sealant Applications - Adhesives for Indoor Carpet, Carpet Pad Subfloor, VCT & Asphalt Tile, Dry Wall & Panel and Cove Base, as amended 1/7/05)	
CERTIFYING PARTY: Self-declared APPLICABLE FACILITIES: All ARDEX manufacturing facilities. CERTIFICATE URL: <a href="https://www.ardexamericas.com/product/ardex-x-77/">https://www.ardexamericas.com/product/ardex-x-77/</a> CERTIFICATION AND COMPLIANCE NOTES: The VOC content has been added to Section 9 of the GHS-Formatted Safety Data Sheet for this product.	ISSUE DATE: 2019-07-19 EXPIRY DATE:	CERTIFIER OR LAB: ARDEX

## 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

Refer to the GHS Formatted Safety Data Sheet (SDS) and the Technical Data Sheet for additional information regarding the proper mixing and application of this product. Information can be found at [www.ardexamericas.com](http://www.ardexamericas.com).

**MANUFACTURER INFORMATION**

**MANUFACTURER:** ARDEX Engineered Cements  
**ADDRESS:** Ardex Park Dr  
 Aliquippa, Pennsylvania Center Township  
**COUNTRY:** United States  
**LATITUDE:** -80.3130000  
**LONGITUDE:** 40.6170000

**WEBSITE:** [www.ardexamericas.com](http://www.ardexamericas.com)  
**CONTACT NAME:** Steven Newbrough  
**TITLE:** Environmental Programs Specialist  
**PHONE:** 724-203-5445  
**EMAIL:** [steven.newbrough@ardexamericas.com](mailto:steven.newbrough@ardexamericas.com)

*The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.*

**KEY**

**Hazard Types**

<b>AQU</b> Aquatic toxicity	<b>LAN</b> Land toxicity	<b>PHY</b> Physical hazard (flammable or reactive)
<b>CAN</b> Cancer	<b>MAM</b> Mammalian/systemic/organ toxicity	<b>REP</b> Reproductive
<b>DEV</b> Developmental toxicity	<b>MUL</b> Multiple	<b>RES</b> Respiratory sensitization
<b>END</b> Endocrine activity	<b>NEU</b> Neurotoxicity	<b>SKI</b> Skin sensitization/irritation/corrosivity
<b>EYE</b> Eye irritation/corrosivity	<b>NF</b> Not found on Priority Hazard Lists	<b>UNK</b> Unknown
<b>GEN</b> Gene mutation	<b>OZO</b> Ozone depletion	
<b>GLO</b> Global warming	<b>PBT</b> Persistent, bioaccumulative, and toxic	

**GreenScreen (GS)**

<b>BM-4</b> Benchmark 4 (prefer-safer chemical)	<b>LT-P1</b> List Translator Possible 1 (Possible Benchmark-1)
<b>BM-3</b> Benchmark 3 (use but still opportunity for improvement)	<b>LT-1</b> List Translator 1 (Likely Benchmark-1)
<b>BM-2</b> Benchmark 2 (use but search for safer substitutes)	<b>LT-UNK</b> List Translator Benchmark Unknown
<b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)	<b>NoGS</b> No GreenScreen.
<b>BM-U</b> Benchmark Unspecified (due to insufficient data)	

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, [www.greenscreenchemicals.org](http://www.greenscreenchemicals.org), and Best Practices for Hazard Screening on the HPDC website ([hpd-collaborative.org](http://hpd-collaborative.org)).

**Recycled Types**

**PreC** Pre-consumer recycled content  
**PostC** Post-consumer recycled content  
**UNK** Inclusion of recycled content is unknown  
**None** Does not include recycled content

**Other Terms:**

**GHS SDS** Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

**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.*