Oldcastle CMU
by Oldcastle APG

Health Product Declaration v2.3

created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 221787082752
CLASSIFICATION: 04 22 00 Concrete Unit Masonry
PRODUCT DESCRIPTION: Concrete masonry units (CMUs), also known as architectural masonry blocks are modular, concrete blocks commonly used in load-bearing walls or building foundations. They are versatile and durable building materials made from cement, aggregates, and water. CMUs can provide the aesthetic appeal of masonry. CMUs are available in various colors, shapes, sizes, and finishes. The core openings in the product are created to reduce material usage, lighten the block for improved installation efficiency, reduce transportation costs, and accommodate steel and grout fill reinforcement. Core openings can also be filled with supplemental insulation to provide improved thermal performance. The current study represents the environmental impacts of Trenwyth and Adams CMUs from Oldcastle's Verastone, Verastone Plus, Trendstone, Trendstone Plus, Mesastone, Split Face, and Insultech product lines.

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
- ○ Other

Residuals/Impurities Evaluation
- ○ Completed
- ◉ Partially Completed
- ○ Not Completed

Explanation(s) provided :
- ◉ Yes ○ No

For all contents above the threshold, the manufacturer has:

Characterized ◉ Yes ○ No
Provided weight and role.

Screened ◉ Yes ○ No
Provided screening results using HPDC-approved methods.

Identified ◉ Yes ○ No
Provided name and CAS RN or other 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.

PRODUCT | MATERIAL OR SUBSTANCE | *RESIDUAL OR IMPURITY* GREENSCREEN SCORE | HAZARD TYPE

OLDCASTLE CMU [SAND NoGS LIMESTONE BM-3dg SHALE, EXPANDED, AGGREGATES NoGS PORTLAND CEMENT LT-P1 | CAN | END | MAM BLAST FURNACE SLAG LT-UNK IRON OXIDE (FE2O3), HYDRATE NoGS DIMETHYL CARBONATE LT-P1 | PHY | AQU | REP DEA-C12-13 ALKYL SULFATE NoGS]

Number of Greenscreen BM-4/BM3 contents ... 1

Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... LT-P1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Threshold screened at 100 ppm. Basic method used.

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: Inherently non-emitting source per LEED
Recycled content: Environmental Product Declaration (EPD) by ASTM
LCA: Environmental Product Declaration (EPD) by UL

CONSISTENCY WITH OTHER PROGRAMS

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

Third Party Verified?
- ○ Yes
- ◉ No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #:

SCREENING DATE: 2023-05-02
PUBLISHED DATE: 2023-07-07
EXPIRY DATE: 2026-05-02

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 2.3, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-3-standard

OLDCASTLE CMU

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Partially

RESIDUALS AND IMPURITIES NOTES: Finished concrete masonry products are made with ingredients that are primarily nuisance dusts although some ingredients may contain crystalline silica. Some finished concrete masonry products may contain traces of residual materials from material enhancement additives such as accelerators, pigments, or water repellents.

OTHER PRODUCT NOTES:

SAND ID: 308075-07-2

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-05-04 12:02:35**

%: **39.0000** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

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: Sand:
Sand is one of the primary ingredients in concrete mixtures, therefore the percentage of material content is higher than 20%. Sand provides the bonding between cement and aggregates in forming concrete masonry unit.

LIMESTONE ID: 1317-65-3

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-05-21 21:01:40**

%: **32.0000** GreenScreen: **BM-3dg** RC: **None** NANO: **No** SUBSTANCE ROLE: **Abrasion resistance**

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: Rocks are used to provide strength, durability and structural support in the concrete mix.

SHALE, EXPANDED, AGGREGATES ID: 68334-37-2

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-05-04 12:19:40**

%: **17.0000** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Abrasion resistance**

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: Aggregates provide strength and structural support for load bearing application sin concrete mix. The aggregates are mixed with water and cement and then poured into molds and allowed to become hard. Aggregates are an essential components of CMUs.

PORTLAND CEMENT

ID: **65997-15-1**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-05-04 12:35:59**

%: **11.0000** 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	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: Cement plays a crucial role in the production of concrete masonry units, providing the binding agent that holds the other materials together and contributing to the strength and durability of CMUs.

BLAST FURNACE SLAG

ID: **65996-69-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-05-25 13:55:18**

%: **1.0000** GreenScreen: **LT-UNK** RC: **PreC** NANO: **No** SUBSTANCE ROLE: **Activator**

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: Ground granulated blast furnace slag is used as an additive with portland cement in combination with water and aggregates to form concrete. Granulated blast furnace slag is used as a component in portland cement manufacture. It is also used as a component of other building and construction materials. Both forms may be used in the manufacture of blended cements. The 100% pre-consumer recycled material has been declared by Skyway Cement Company. The EPD certificate is added.

IRON OXIDE (FE2O3), HYDRATE

ID: **12259-21-1**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-05-09 10:47:52**

%: **0.4000** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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: Pigment iron oxide is a coloring agent used in the production of concrete masonry units (CMUs). The addition of iron oxide pigment to the mix of aggregates, cement and water gives the CMU its characteristic color.

DIMETHYL CARBONATE

ID: **616-38-6**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-05-09 12:25:27**

%: **0.1000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Water resistance**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2
REP	GHS - Japan	H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]
PHY	GHS - New Zealand	Flammable liquids category 2
PHY	GHS - Japan	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
PHY	GHS - Australia	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals Some Solvents

SUBSTANCE NOTES: Sealants are used in CMU to improve their durability and prevent water infiltration through cracks or gaps..

DEA-C12-13 ALKYL SULFATE

ID: **243133-68-8**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-05-09 11:00:17**

%: **0.0500** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Corrosion inhibitor**

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: Diethanolamine (DEA) is use as an admixture densifier in concrete. It is used as a corrosion inhibitor in concrete, and to improve durability of concrete surfaces.

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 — **Inherently non-emitting source per LEED**

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: This certificate is applicable for Oldcastle's CMU manufactured at Morris, IL, Morrisville, NC and Phoenix AZ.
CERTIFICATE URL:

ISSUE DATE: 2023-05-21
EXPIRY DATE:

CERTIFIER OR LAB: None

CERTIFICATION AND COMPLIANCE NOTES: Self-declared

RECYCLED CONTENT — **Environmental Product Declaration (EPD) by ASTM**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: This certificate is applicable for Oldcastle's CMU manufactured at Morris, IL, Morrisville, NC and Phoenix AZ.
CERTIFICATE URL:

ISSUE DATE: 2022-09-30
EXPIRY DATE: 2027-09-30

CERTIFIER OR LAB: ASTM International

CERTIFICATION AND COMPLIANCE NOTES: The certificate is about the environmental product declaration of slag cement used in the Cordova Stone.

LCA — **Environmental Product Declaration (EPD) by UL**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: This certificate is applicable for Oldcastle's CMU manufactured at Morris, IL, Morrisville, NC and Phoenix AZ.
CERTIFICATE URL:

ISSUE DATE: 2023-03-01
EXPIRY DATE: 2028-03-01

CERTIFIER OR LAB: UL Environment

CERTIFICATION AND COMPLIANCE NOTES: The certificate meets the requirements of UL Environment Part B: Concrete Masonry and Segmental concrete Paving product

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

Oldcastle Architectural company, is North America’s leading manufacturer of building products and materials and an industry leader in providing sustainable masonry solutions for architects and building owners. Oldcastle Architectural offers a complete line of masonry products and services, including sustainable solutions, through its Echelon Masonry brand. Echelon Masonry offers a number of products that may contribute to LEED v4 and other Green Building rating programs, and we continuously strive to provide our partners with valuable resources and assets to help guide sustainable design and construction practices. Made from cement, aggregates, and water, concrete masonry units (CMUs) are a versatile and durable building material that are easy to install. Matched with the many other benefits of masonry, including outstanding performance and easy maintenance, Echelon Masonry helps you create gorgeous structures that will stand strong for years to come.
For more information, please visit EchelonMasonry.com.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Oldcastle APG**
ADDRESS: **400 Perimeter Center Terrace Suite 1000**
Atlanta Georgia30346 30346, USA
WEBSITE: **https://www.echelonmasonry.com/**

CONTACT NAME: **Len Browning**
TITLE: **Technical Advisor**
PHONE: **847-774-2875**
EMAIL: **Len.Browning@oldcastle.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

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

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 (due to insufficient data)
LT-P1 List Translator Possible 1 (Possible Benchmark-1)
LT-1 List Translator 1 (Likely Benchmark-1)
LT-UNK List Translator Benchmark Unknown
NoGS No GreenScreen.

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, and Best Practices for Hazard Screening on the HPDC website (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.