

CLASSIFICATION: 04 22 00

PRODUCT DESCRIPTION: Gray Lightweight Structural concrete masonry unit (CMU) complying with ASTM C-90, manufactured using a blend of aggregates including expanded slate lightweight aggregate. Gray Lightweight CMU have an average density less than 105 lb/ft3 (1,680 kg/m3). Concrete masonry units are installed with mortar which is not covered by this HPD.

Section 1: Summary

Nested 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

Residuals/Impurities Considered in 3 of 6 Materials

- Explanation(s) provided for Residuals/Impurities?
- Yes
 - No

All Substances Above the Threshold Indicated Are:

Characterized Yes Ex/SC Yes No
 % weight and role provided for all substances except SC substances characterized according to SC guidance.

Screened Yes Ex/SC Yes No

All substances screened using Priority Hazard Lists with results disclosed except SC substances screened according to SC guidance.

Identified Yes Ex/SC Yes No

All substances disclosed by Name (Specific or Generic) and Identifier except SC substances identified according to SC guidance.

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

EXPANDED SLATE [**SC:EXPANDED SLATE** Not Screened] **QUARTZ** LT-1 | CAN] **SC:GEOMAT:SAND** [**SC:SAND** Not Screened] **PORTLAND CEMENT** [**PORTLAND CEMENT** LT-P1 | END | CAN] **FLY ASH** [**FLY ASH** LT-UNK] **SC:GEOMAT:STONEAGGREGATE** [**SC:STONE AGGREGATE** Not Screened] **SC:MIXEDRC:CRUSH** [**SC:CRUSHED CONCRETE MASONRY UNITS** Not Screened]

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:

Special conditions applied: GeologicalMaterial, MixedRecycledContent

[LEED v4] "Yes ex/SC" result is due only to materials and substances for which Special Conditions were applied. Thus "Yes ex/SC" does not disqualify the product for the LEED v4 Materials and Resources Disclosure and Optimization credit, Option 1.

Special conditions applied: Geological Material.
Special conditions applied: MixedRecycledContent.

[LEED v4] "Yes ex/SC " result is due only to materials and substances for which Special Conditions were applied. Thus "Yes ex/SC" does not disqualify the product for the LEED v4 Materials and Resources Disclosure and Optimization credit, Option 1.

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: VOC emissions

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: 2020-03-31

PUBLISHED DATE: 2020-03-31

EXPIRY DATE: 2023-03-31



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

EXPANDED SLATE

#: 35.00 - 55.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: The product is composed of 100% slate, expanded at high temperature. The expanded slate is primarily amorphous type. However, quartz (crystalline silica) may be present in excess of 1%. Residuals have been considered per supplier SDS.

OTHER MATERIAL NOTES: Expanded slate makes the CMU lighter, and provides improved thermal performance.

The percentage of expanded slate used varies depending upon the properties of the other aggregates used in the mix.

SC:EXPANDED SLATE

ID: SC:GeoMat

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-03-31

#: 98.00 - 100.00

GS: Not Screened

RC: None

NANO: No

ROLE: Expanded slate is a lightweight aggregate.

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

Hazard Screening not performed

SUBSTANCE NOTES:

Version: SCGeoMats/2018-02-23

Origin: USA

Typical Composition: solid

Potential presence of toxic metals: unknown

Presence of Radioactive Elements: unknown

The product is composed of 100% slate, expanded at high temperature. The expanded slate is primarily amorphous type. However, quartz (crystalline silica) may be present in excess of 1%. Residuals have been considered per supplier SDS.

QUARTZ

ID: 14808-60-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-03-31

#: 0.00 - 2.00

GS: LT-1

RC: None

NANO: No

ROLE: impurity/residual

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
CANCER	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	GHS - New Zealand	6.7A - Known or presumed human carcinogens
CANCER	GHS - Japan	Carcinogenicity - Category 1A [H350]
CANCER	GHS - Australia	H350i - May cause cancer by inhalation

SUBSTANCE NOTES: Expanded slate is composed of 100% slate, expanded at high temperature. The expanded slate is primarily amorphous type. However, quartz (crystalline silica) may be present in excess of 1% per supplier SDS.

SC:GEOMAT:SAND

#: 20.00 - 40.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: This disclosure does not provide typical composition or potential presence of toxic metals or radioactive elements which may be found in certain geological materials. Sand may be natural sand or manufactured sand.

OTHER MATERIAL NOTES: SpecialConditionApplied:GeologicalMaterial --- The percentage of sand varies depending upon the characteristics of the other aggregates used.

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-03-31**

%: **100.00 - 100.00** GS: **Not Screened** RC: **None** NANO: **No** ROLE: **Sand when combined with other aggregates and Portland cement gives shape and a tight finish to the CMU.**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
Hazard Screening not performed		

SUBSTANCE NOTES:

Version: SCGeoMats/2018-02-23
 Origin: USA, North Carolina
 Typical Composition: sand
 Potential presence of toxic metals: unknown
 Presence of Radioactive Elements: unknown

This disclosure does not provide typical composition or potential presence of toxic metals or radioactive elements which may be found in certain geological materials.

PORTLAND CEMENT

%: **9.00 - 15.00**

PRODUCT THRESHOLD: **1000 ppm** RESIDUALS AND IMPURITIES CONSIDERED: **Yes**

RESIDUALS AND IMPURITIES NOTES: **ADAMS** an Oldcastle Company has not completed any testing to determine residuals or impurities. However, supplier SDS for portland cement lists the composition as: Portland cement (CAS 65997-15), 50-98%, Skin Irr. 1C (H314), Eye Corr. 1 (H318), Skin Sens. 1 (H317), STOT SE 3 (H335); Limestone (CAS 1317-65-3), 0-15%, Not Classified; Calcium sulfate dihydrate (CAS 13397-24-5), 2-10%, Not Classified; Calcium oxide (CAS 1305-78-8), 0-5%, Skin Irr. 1C (H314), Eye Irr. 1 (H318), STOT SE 3 (H335); Magnesium oxide (CAS 1309-48-4), 0-4%, Skin Irr. 3 (H316), Eye Irr. 2 (H320), STOT SE 3 (H335); Quartz (CAS 14808-60-7), <0.2%, Carc. 1A (H350), STOT RE 1 (H372).

OTHER MATERIAL NOTES: The percentage of Portland cement varies depending upon the gradation of materials in the mix.

PORTLAND CEMENT

ID: **65997-15-1**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-03-31**

%: **100.00 - 100.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Portland cement is a binder that provides strength to the unit.**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: **ADAMS** an Oldcastle Company has not completed any testing to determine residuals or impurities of portland cement. However, supplier SDS for portland cement lists the composition as: Portland cement (CAS 65997-15), 50-98%, Skin Irr. 1C (H314), Eye Corr. 1 (H318), Skin Sens. 1 (H317), STOT SE 3 (H335); Limestone (CAS 1317-65-3), 0-15%, Not Classified; Calcium sulfate dihydrate (CAS 13397-24-5), 2-10%, Not Classified; Calcium oxide (CAS 1305-78-8), 0-5%, Skin Irr. 1C (H314), Eye Irr. 1 (H318), STOT SE 3 (H335); Magnesium oxide (CAS 1309-48-4), 0-4%, Skin Irr. 3 (H316), Eye Irr. 2 (H320), STOT SE 3 (H335); Quartz (CAS 14808-60-7), <0.2%, Carc. 1A (H350), STOT RE 1 (H372).

FLY ASH

#: 0.00 - 15.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: Fly ash is defined by the U.S. EPA as: "The residuum from the burning of a combination of carbonaceous materials. The following elements may be present as oxides: aluminum, calcium, iron, magnesium, nickel, phosphorus, potassium, silicon, sulfur, titanium, and vanadium." The exact composition of fly ash is dependent on the fuel source and flue additives composed of many constituents.

OTHER MATERIAL NOTES: The percentage of fly ash varies depending upon the availability of the substance and on the properties of the geologic materials available.

FLY ASH

ID: 68131-74-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-03-31

#: 100.00 - 100.00

GS: LT-UNK

RC:
PreC

NANO:
Unknown

ROLE: Fly ash serves as a pozzolan/binder.

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Per supplier SDS, this fly ash as produced has not been assessed and/or tested for its physical, health, and environmental hazards, but hazards are inferred through similarity to other alumino-silicates and mineralogical materials of similar composition.

Fly ash may contain nano particles.

SC:GEOMAT:STONEAGGREGATE

#: 0.00 - 20.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No testing for residuals or impurities are conducted by ADAMS, an Oldcastle company. This disclosure does not provide typical composition or potential presence of toxic metals or radioactive elements which may be found in certain geological materials.

OTHER MATERIAL NOTES: SpecialConditionApplied:GeologicalMaterial --- The percentage of stone aggregate varies depending upon the desired finish of the CMU, as well as the geologic materials available.

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-03-31**

%: **100.00 - 100.00** GS: **Not Screened** RC: **None** NANO: **No** ROLE: **Stone aggregate provides structure and strength to the unit.**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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Hazard Screening not performed

SUBSTANCE NOTES:

Version: SCGeoMats/2018-02-23
Origin: USA, North Carolina
Typical Composition: typically limestone or granite
Potential presence of toxic metals: unknown
Presence of Radioactive Elements: unknown

This disclosure does not provide typical composition or potential presence of toxic metals or radioactive elements which may be found in certain geological materials.

SC:MIXEDRC:CRUSH

%: **0.00 - 20.00**

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **Yes**

RESIDUALS AND IMPURITIES NOTES: **As Crush is composed of crushed (recycled) concrete masonry units CMU), residuals and impurities have been considered to the extent that they were considered for the CMU before crushing. Concrete Masonry Units are considered a Common Product as listed in the Quartz Project Database. Residuals and Impurities were considered based on Quartz Project Database. No Residuals or Impurities are expected to be present at or above Content Inventory Threshold that return a GreenScreen score of BM-1, LT-1, LT-P1 or NoGS.**

OTHER MATERIAL NOTES: **SpecialConditionApplied:MixedRecycledContent --- The variation in percentage depends upon availability of this and other substances. Crush is used to reduce the amount of virgin stone aggregate required.**

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

HAZARD SCREENING DATE: **2020-03-31**

#: **100.00 - 100.00**

GS: **Not Screened**

RC:
UNK

NANO:
No

ROLE: **Crushed concrete masonry units are used as aggregate in the mix to provide strength.**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

Hazard Screening not performed

SUBSTANCE NOTES:

Version: **SCMixdRC/2018-02-23**

Is regular, analytical testing performed on the substance?: **Yes**

Manufacturer conducts testing to determine the absorption and density characteristics of the crushed concrete masonry units. No other testing is performed.

BatchVariation: Batch variation occurs due to the variation in the types of concrete masonry units and/or concrete that are blended together and then crushed.

SourceofOrigin: **USA**

Why is there limited information?: Is it not practical or useful to separate the types of concrete masonry units that are crushed to be used as aggregate.

This disclosure does not provide information on the potential presence of hazardous substances which may be found in certain mixed recycled materials.

Crushed concrete masonry units used as aggregate may include in-house scrap inventory and/or recycled concrete from a building site. Crushed aggregate is used to reduce the amount of virgin stone aggregate required.

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

VOC emissions

CERTIFYING PARTY: **Self-declared**

ISSUE DATE: **2020-**

EXPIRY DATE:

CERTIFIER OR LAB: **self**

APPLICABLE FACILITIES: **All. This product has not been certified because it is an Inherently nonemitting source per LEED®.**

02-20

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **This product has not been certified because it is an Inherently nonemitting source per LEED®.**

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.

MASONRY MORTAR

HPD URL: **no HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Most concrete masonry units are installed by laying (joining) units with masonry mortar. Masonry mortar is typically manufactured and provided by another company. The type and composition of masonry mortar varies.

MASONRY GROUT

HPD URL: **no HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Concrete masonry units are sometimes filled with masonry grout to provide structural strength. The composition of masonry grout varies. Masonry grout is typically manufactured and provided by another company.

Section 5: General Notes

This HPD covers a range of products classified as Gray lightweight (expanded slate) structural CMU manufactured at North Carolina plants located in Asheville, Morrisville, Dunn, Castle Hayne, Colfax, and Charlotte, and marketed and sold by ADAMS, an Oldcastle Company. All are functionally equivalent, covered by the same ASTM C-90 specification, and have the same basic composition, with variations in percentages of substances due to variations in characteristics and supply of the ingredients used. Ranges are also used for proprietary purposes. The variation in content beyond 10% for some substances in this HPD is principally due to geographical or supply chain differences that do not affect the identification or description of the product. Publishing multiple HPDs would likely be confusing to HPD users.

MANUFACTURER INFORMATION

MANUFACTURER: **Oldcastle**ADDRESS: **333 N. Greene St****Greensboro NC 27401, USA**WEBSITE: **Echelonmasonry.com**CONTACT NAME: **Robert Carmody**TITLE: **Sales Manager**PHONE: **919-467-2218**EMAIL: **robert.carmody@oldcastle.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.