

HPD UNIQUE IDENTIFIER: 23262

CLASSIFICATION: 04 22 00 Concrete Unit Masonry

PRODUCT DESCRIPTION: Sustainable and economical, ORCO manufactured concrete masonry units (CMUs) provide both structure and finish with unsurpassed versatility, ranging from mid-century modern to contemporary design and everything in between. Excellent fire resistance and thermal values make ORCO CMU an ideal choice for residential and commercial applications, as well as schools and essential facilities. ORCO CMU are also decorative and provide accents for a wide variety of conditions. All structural ORCO CMU are manufactured to meet ASTM C-90 Standard Specification for Loadbearing Concrete Masonry Units. This HPD covers ORCO CMU in all colors and collections of Light Weight mix design.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold level	Residuals/Impurities	<i>All Substances Above the Threshold Indicated Are:</i>
<input type="radio"/> Nested Materials Method <input checked="" type="radio"/> Basic Method	<input checked="" type="radio"/> 100 ppm <input type="radio"/> 1,000 ppm <input type="radio"/> Per GHS SDS <input type="radio"/> Other	<input checked="" type="radio"/> Considered <input type="radio"/> Partially Considered <input type="radio"/> Not Considered	Characterized <input checked="" type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input type="radio"/> No <i>% weight and role provided for all substances except SC substances characterized according to SC guidance.</i>
Threshold Disclosed Per <input type="radio"/> Material <input checked="" type="radio"/> Product		Explanation(s) provided for Residuals/Impurities? <input checked="" type="radio"/> Yes <input type="radio"/> No	Screened <input checked="" type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input type="radio"/> No <i>All substances screened using Priority Hazard Lists with results disclosed except SC substances screened according to SC guidance.</i>
			Identified <input checked="" type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input type="radio"/> No <i>All substances disclosed by Name (Specific or Generic) and Identifier except SC substances identified according to SC guidance.</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.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY
GREENSCREEN SCORE | HAZARD TYPE
CONCRETE MASONRY UNIT (CMU) - LIGHT WEIGHT [SC:NATURAL SAND Not Screened SHALE, EXPANDED, AGGREGATES NoGS PORTLAND CEMENT LT-P1 | END | CAN QUARTZ LT-1 | CAN]

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

[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.

This Health Product Declaration (HPD) was completed in accordance with the HPD Standard version 2.2, and discloses hazards associated with all substances present at or above 100 parts per million (ppm) in the finished product, along with the role and percent weight.

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® LCA: Environmental Product Declaration (EPD) by EarthSure

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

PREPARER: Self-Prepared

SCREENING DATE: 2020-12-23

Yes
 No

VERIFIER:
VERIFICATION #:

PUBLISHED DATE: 2020-12-23
EXPIRY DATE: 2023-12-23

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

CONCRETE MASONRY UNIT (CMU) - LIGHT WEIGHT

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were "Considered", as outlined in Emerging Best Practices. Pharos CML lists component substances of Portland cement and various geological materials as "Known or Potential Residuals", thus these components have been included in the relevant Substance Notes; components are listed by name, CASRN, percent by weight, and associated GreenScreen score. Additional residuals/impurities disclosed by suppliers or listed by Pharos CML are included as individual substances.

OTHER PRODUCT NOTES: Percent by weight of substances reported as range in order to account for possible variations between product color and collections, and between manufacturing plants.

SC:NATURAL SAND

ID: SC:GeoMat

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-12-23

#: 50.9000 - 51.0000 GS: Not Screened RC: None NANO: No SUBSTANCE ROLE: Filler

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	Hazard Screening not performed	

SUBSTANCE NOTES:

Version: SCGeoMats/2019-06-20

Origin: Corona, CA USA

Typical Composition: Silica sand

Potential presence of toxic metals: Supplier states that material is free of contaminants

Presence of Radioactive Elements: Supplier states that material is free of contaminants

Fine aggregate. Supplier states "Our products are produced from virgin materials that are native to the deposit and processed on site... material is washed, free of organic matter, contains no clay or deleterious substances, and is free of contaminants."

SHALE, EXPANDED, AGGREGATES

ID: 68334-37-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-12-23

#: 37.9000 - 38.0000 GS: NoGS RC: None NANO: No SUBSTANCE ROLE: Filler

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Lightweight aggregate.

PORTLAND CEMENT

ID: 65997-15-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-12-23

#: 11.1000 - 11.2000 GS: LT-P1 RC: None NANO: No SUBSTANCE ROLE: Binder

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

SUBSTANCE NOTES: Supplier has provided the following regarding the structure of Portland cement: Calcium Oxide (0-2.0%) [1305-78-8; LT-P1]; Crystalline Silica/Quartz (0-0.3%) [14808-60-7; LT-1]; Gypsum (1-4%) [13397-24-5; LT-UNK]; Limestone (0-20%) [1317-65-3; LT-UNK]; Magnesium Oxide (2-4%) [1309-48-4; LT-UNK]; Hexavalent Chromium (0-0.003%) [18540-29-9; LT-1]. NIST further includes the following as components of Portland Cement: Silicon Dioxide (20%) [7631-86-9; BM-1]; Aluminum Oxide (5%) [1344-28-1; BM-2]; Iron III Oxide (4%) [1309-37-1; BM-1]; and Sulfur Trioxide (3%) [7446-11-9; LT-P1]. Pharos CML also includes Aluminum calcium iron oxide [12068-35-8; NoGS] as a "Known or Potential Residual" of Portland Cement (Component; Frequent; Unknown %).

QUARTZ

ID: 14808-60-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-12-23**

%: **Impurity/Residual** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	IARC	Group 1 - Agent is Carcinogenic to humans
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
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	GHS - New Zealand	6.7A - Known or presumed human carcinogens
CAN	GHS - Japan	Carcinogenicity - Category 1A [H350]
CAN	GHS - Australia	H350i - May cause cancer by inhalation

SUBSTANCE NOTES: Impurity of Shale aggregate, as per supplier documentation. May also include Cristobalite (14464-46-1; LT-1).

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

ISSUE DATE: 2020-11-

EXPIRY DATE:

CERTIFIER OR LAB: N/A

APPLICABLE FACILITIES: All

03

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: Product is an inherently nonemitting source of VOCs (stone, ceramic, powder-coated metals, plated or anodized metal, glass, concrete, clay brick, and unfinished or untreated solid wood) and has no integral organic-based surface coatings, binders, or sealants.

LCA

Environmental Product Declaration (EPD) by EarthSure

CERTIFYING PARTY: Third Party

ISSUE DATE: 2016-09-

EXPIRY DATE: 2021-

CERTIFIER OR LAB: EarthSure

APPLICABLE FACILITIES: Riverside, CA; Oceanside, CA;

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09-15

Stanton, CA; Indio, CA

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: Product Description: CMU with light weight aggregates. Configurations for site walls, architectural masonry with structural and veneer applications. This product is manufactured with pre-consumer recycled concrete. Minimum compressive strength: 2000 PSI. Scope: Cradle-to-gate. Declared Unit: 1 m3 of concrete formed into manufactured concrete masonry product (CMU). PCR: The ASTM International PCR005: Product Category Rules for Preparing an Environmental Product Declaration for Manufactured concrete and Concrete Masonry.

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.

ORCO BLENDED PRODUCTS PREBLENDED TYPE S MORTAR

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Use for installation of concrete masonry units.

ORCO BLENDED PRODUCTS PREBLENDED TYPE M MORTAR

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Use for installation of concrete masonry units.

ORCO BLENDED PRODUCTS PREBLENDED TYPE S MORTAR WITH IWR

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Use for installation of concrete masonry units.

Section 5: General Notes

MANUFACTURER INFORMATION

MANUFACTURER: ORCO Block & Hardscape
ADDRESS: 4510 Rutile Street
 Riverside CA 92509, USA
WEBSITE: <https://www.orco.com/>

CONTACT NAME: Juan Tejada
TITLE: Special Projects Manager
PHONE: (951) 685-1521
EMAIL: juan.tejada@orco.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	LAN Land toxicity	PHY Physical hazard (flammable or reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive
DEV Developmental toxicity	MUL Multiple	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	NF Not found on Priority Hazard Lists	UNK Unknown
GEN Gene mutation	OZO Ozone depletion	
GLO Global warming	PBT Persistent, bioaccumulative, and toxic	

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)
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)	NoGS No GreenScreen.

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.