C1-153
by Concretos Cruz Azul

Health Product Declaration v2.1

created via: HPDC Online Builder

CLASSIFICATION: 03 30 00

PRODUCT DESCRIPTION: Weight of the mixture > [kg / m3] 2300, Resistance to 28 days [MPa] 40 and 60 (Conversion 1 MPa=10.1972 kg/cm2), Nominal Revenge 18 +/- 3 cm, Nominal air content < [%] 3, Water ratio in cementing material 0.35, Maximum size Gravel 1 limestone [mm] 20, Size of river sand [mm] 0-0.05, Shrink Limit [%] 0.0350 @ 56 days. UNSPSC Code 30111500 Ready Mix Concrete. This concrete is rated for structural construction and can be made at plant located onsite Nuevo Aeropuerto Internacional de México (NAIM) located at Autopista Peñón-Texcoco Km 7.5 s/n, Texcoco de Mora, Edo. De México, CP 56100.

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

Explanation(s) provided for Residuals/Impurities?

- ◉ Yes ○ No

Are All Substances Above the Threshold Indicated:

Characterized ◉ Yes ○ No

Percent Weight and Role Provided?

Screened ◉ Yes ○ No

Using Priority Hazard Lists with Results Disclosed?

Identified ◉ Yes ○ No

Name and Identifier Provided?

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

C1-153 [LIMESTONE; CALCIUM CARBONATE LT-UNK PORTLAND CEMENT LT-P1 | END | CAN WATER BM-4 FLY ASH LT-UNK SILICA FUME LT-UNK]

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

Contents highest concern GreenScreen Benchmark or List translator Score ... LT-P1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

No residuals and impurities are present above the declared inventory threshold, hence these were not reported on the HPD as indicated in the Emerging Best Practices, Section 2.2.1.5 Residuals/Impurities. Materials or substances representing more than 99.9% of the product weight meet 1,000 ppm threshold and were characterized, screened and identified. This product contains substances that may be considered as geological materials, however, guidelines for Special Conditions are still under development.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

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

VOC emissions: Not Applicable
VOC content: Not Applicable

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: 2018-07-10
PUBLISHED DATE: 2018-07-10
EXPIRY DATE: 2021-07-10

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

C1-153

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: No residuals and impurities are present above the declared inventory threshold, hence these were not reported on the HPD as indicated in Emerging Best Practices, Section 2.2.1.5 Residuals/Impurities.

OTHER PRODUCT NOTES: None

LIMESTONE; CALCIUM CARBONATE

ID: 1317-65-3

%: 73.5200 GS: LT-UNK RC: None NANO: No ROLE: Fine and coarse aggregate

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance name and identifier disclosed. Considered as Geological Material.

PORTLAND CEMENT

ID: 65997-15-1

%: 14.7000 GS: LT-P1 RC: None NANO: No ROLE: Binder

HAZARDS:	AGENCY(IES) WITH 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: Substance name and identifier disclosed.

WATER

ID: 7732-18-5

%: 6.8800 GS: BM-4 RC: None NANO: No ROLE: Base

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES: None

FLY ASH

ID: 68131-74-8

%: 3.9200 | GS: LT-UNK | RC: PreC | NANO: No | ROLE: Binder

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES: Fly ash is considered as post-industrial recycled content, also known as pre-consumer recycled content.

SILICA FUME

ID: 69012-64-2

%: 0.9800 | GS: LT-UNK | RC: PreC | NANO: No | ROLE: Binder

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES: Silica fume is a by-product from the manufacture of silicon or ferro-silicon metal. Silica fume is considered as post-industrial recycled content, also known as pre-consumer recycled content.

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 — **Not Applicable**

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: NA
CERTIFICATE URL:

ISSUE DATE: 2018-07-03

EXPIRY DATE:

CERTIFIER OR LAB: NA

CERTIFICATION AND COMPLIANCE NOTES:

VOC CONTENT — **Not Applicable**

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: NA
CERTIFICATE URL:

ISSUE DATE: 2018-07-03

EXPIRY DATE:

CERTIFIER OR LAB: NA

CERTIFICATION AND COMPLIANCE NOTES: Mix C1-153 has a VOC (Volatile Organic Compound) content of 0 g/L or 0 lb/gal, hence meets LEED v4 Credit "Low Emitting Materials". VOC statement does not expire unless a change of formulation has been made.

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.

MASTER BUILDERS SOLUTIONS — HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:
Through the Master Builders Solutions brand, BASF provides the widest range of high-quality admixtures to improve the placing, pumping, finishing, appearance and consistency of concrete; every type of admixture used to provide customized and optimizing concrete mixture proportions for the best balance, strength, durability and sustainability for concrete.

Section 5: General Notes

This HPD was checked against the LEED Pre-Check Indicator and demonstrates compliance with Option 1 of the LEED v4 credit "Building Product Disclosure and Optimization – Material Ingredients". This HPD was prepared by Consultoría SPECS.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Concretos Cruz Azul**
ADDRESS: **Torres Adalid No. 517, Colonia del Valle Mexico City Benito Juárez 03100, Mexico**
WEBSITE: **https://www.concretoscruzazul.com.mx/**
CONTACT NAME: **Ing. Fernando Vázquez Jiménez**
TITLE: **Gerente Técnico**
PHONE: **55 434 623 99**
EMAIL: **fernendo.vazquez@concretoscruzazul.net**

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 (insuficient 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.