

CLASSIFICATION: 03302 Concrete Ready Mix

PRODUCT DESCRIPTION: This ready-mix concrete manufactured by Holcim Mexico, S.A. de C.V. has the following specifications: Weight of the mixture [kg / m3] 1995, Resistance to 28 days [MPa] 35 (Conversion 1 Mpa=10.1972 kg/cm2), Nominal Revene 20 +/- 3 cm, Nominal air content [%] 1.5, Water ratio in cementing material no limit, Maximum size Gravel 1 limestone [mm] 20, Maximum gravel size Gravel 3 [mm] 40, Size of river sand [mm] 0-0.05, Shrink Limit [%] @ 56 days no limit, UNSPSC Code 30111500 Ready Mix Concrete. This concrete is rated for structural construction and can be made at either three plants located onsite NAICM or at the Los Reyes plant. This HPD is of the ready-mix concrete, mixture HMX C5, only and does not include any sealers or other concrete accessory products.

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 4 of 4 Materials

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

GRAVEL [GRAVEL (GRAVEL) NoGS MANGANESE (MANGANESE) LT-P1 | END | MUL | REP VANADIUM (VANADIUM) LT-1 | MUL | CAN | GEN NICKEL (NICKEL) LT-1 | MAM | CAN | SKI | AQU | RES | MUL COBALT (COBALT) LT-1 | RES | SKI | CAN | MUL | GEN] HMX C5 [RIVER SAND NoGS WATER (WATER) BM-4] PORTLAND CEMENT [PORTLAND CEMENT (PORTLAND CEMENT) LT-P1 | END | CAN CHROMIUM (III) COMPOUNDS (CHROMIUM (III) COMPOUNDS) LT-UNK | RES | SKI] UNDISCLOSED [LIGNOSULFONIC ACID, CALCIUM SALT, POLYMER WITH CYANOANIDINE, FORMALDEHYDE AND SODIUM LIGNOSULFONATE (LIGNOSULFONIC ACID, CALCIUM SALT, POLYMER WITH CYANOANIDINE, FORMALDEHYDE AND SODIUM LIGNOSULFONATE) LT-UNK WATER (WATER) BM-4 BEET MOLASSES (BEET MOLASSES) NoGS (E)-3-(4-(4-FLUOROPHENYL)-5-METHOXYMETHYL-2,6-BIS(1-METHOXYMETHYL)PYRIDIN-3-YL)PROP-2-ENAL ((E)-3-(4-(4-FLUOROPHENYL)-5-METHOXYMETHYL-2,6-BIS(1-METHOXYMETHYL)PYRIDIN-3-YL)PROP-2-ENAL) LT-UNK | EYE | SKI SIMETHICONE (SIMETHICONE) LT-UNK]

Number of Greenscreen BM-4/BM3 contents ... 2

Contents highest concern GreenScreen Benchmark or List translator Score ... LT-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

All materials were screened for this HPD with the exception of River Sand. River sand is a Geological Material considered a Special Condition by HPDC. Reporting Special Condition materials are still under development by HPDC. This Special Condition has caused the Screening of Materials pre-check to fail. At the time that HPDC has updated the handling of Geological Material Holcim Mexico will update the HPD to reflect those changes.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

Other: Environmental Product Declaration (EPD) by Labeling Sustainability

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?

Yes

No

PREPARER: **Self-Prepared**

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2017-10-05

PUBLISHED DATE: 2018-05-11

EXPIRY DATE: 2020-10-05



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

GRAVEL

%: 45.0000 - 55.0000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered per the Quartz database for common building materials- ready-mix concrete <http://www.quartzproject.org/p/CP170-a03#cp>

OTHER MATERIAL NOTES:

GRAVEL (GRAVEL)

ID: Not registered

%: 100.0000 GS: NoGS RC: UNK NANO: No ROLE: Aggregate

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

MANGANESE (MANGANESE)

ID: 7439-96-5

%: Impurity/Residual GS: LT-P1 RC: UNK NANO: No ROLE: Impurity/Residual

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Per Quartz <http://www.quartzproject.org/p/CP170-a03#cp>

VANADIUM (VANADIUM)

ID: 7440-62-2

%: Impurity/Residual GS: LT-1 RC: UNK NANO: No ROLE: Impurity/Residual

HAZARDS:

AGENCY(IES) WITH WARNINGS:

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 3 - Severe Hazard to Waters

CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
GENE MUTATION	MAK	Germ Cell Mutagen 2

SUBSTANCE NOTES: Per Quartz <http://www.quartzproject.org/p/CP170-a03#cp>

NICKEL (NICKEL)

ID: 7440-02-0

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
%: Impurity/Residual	GS: LT-1	RC: UNK NANO: No ROLE: Impurity/Residual
MAMMALIAN	EU - R-phrases	R23 - Toxic by Inhalation (gas, vapour, dust/mist)
CANCER	EU - R-phrases	R40 - Limited Evidence of Carcinogenic Effects
SKIN SENSITIZE	EU - R-phrases	R43 - May cause sensitization by skin contact
ORGAN TOXICANT	EU - R-phrases	R48: Danger of serious damage to health by prolonged exposure.
ACUTE AQUATIC	EU - R-phrases	R52 - Harmful to Aquatic Organisms
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: Per Quartz <http://www.quartzproject.org/p/CP170-a03#cp>

COBALT (COBALT)

ID: 7440-48-4

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
%: Impurity/Residual	GS: LT-1	RC: UNK NANO: No ROLE: Impurity/Residual

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY	EU - R-phrases	R42 - May cause sensitization by inhalation
SKIN SENSITIZE	EU - R-phrases	R43 - May cause sensitization by skin contact
RESPIRATORY	AOEC - Asthmagens	Asthmagen (G) - generally accepted
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
RESPIRATORY	EU - GHS (H-Statements)	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
GENE MUTATION	MAK	Germ Cell Mutagen 3a

SUBSTANCE NOTES: Per Quartz <http://www.quartzproject.org/p/CP170-a03#cp>**HMX C5**

%: 30.0000 - 40.0000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered per the Quartz database for common building materials- ready-mix concrete <http://www.quartzproject.org/p/CP170-a03#cp>

OTHER MATERIAL NOTES:

RIVER SAND

ID: Not Registered

%: 28.0000 - 35.0000

GS: NoGS

RC: UNK

NANO: No

ROLE: Aggregate

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: River sand is a Geological Material considered a Special Condition by HPDC. Reporting Special Condition materials are still under development by HPDC.

WATER (WATER)

ID: 7732-18-5

#: 5.0000 - 10.0000

GS: BM-4

RC: UNK

NANO: No

ROLE: Hydration

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

PORTLAND CEMENT

#: 15.0000 - 20.0000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered per the Quartz database for common building materials- ready-mix concrete <http://www.quartzproject.org/p/CP170-a03#cp>

OTHER MATERIAL NOTES:

PORTLAND CEMENT (PORTLAND CEMENT)

ID: 65997-15-1

#: 100.0000

GS: LT-P1

RC: PreC

NANO: No

ROLE: Cement

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: Post Industrial Recycled Content 90.24 kg/m3

CHROMIUM (III) COMPOUNDS (CHROMIUM (III) COMPOUNDS)

ID: Not registered

#: Impurity/Residual

GS: LT-UNK

RC: UNK

NANO: No

ROLE: Impurity/Residual

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (ARs) - sensitizer-induced - inhalable forms only

SKIN SENSITIZE

MAK

Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: Per Quartz <http://www.quartzproject.org/p/CP170-a03#cp>

UNDISCLOSED

#: 0.0800 - 0.1800

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered per the toxnot database for chemicals.

LIGNOSULFONIC ACID, CALCIUM SALT, POLYMER WITH CYANOQUANIDINE, FORMALDEHYDE AND SODIUM LIGNOSULFONATE (LIGNOSULFONIC ACID, CALCIUM SALT, POLYMER WITH CYANOQUANIDINE, FORMALDEHYDE AND SODIUM LIGNOSULFONATE)

ID: 95649-13-1

%: **60.0000 - 90.0000**GS: **LT-UNK**RC: **None** NANO: **No** ROLE: **Base**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

WATER (WATER)

ID: 7732-18-5

%: **0.5000 - 49.5000**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:

BEET MOLASSES (BEET MOLASSES)

ID: 68476-78-8

%: **0.0500 - 14.5000**GS: **NoGS**RC: **None**NANO: **No**ROLE: **substitute sugar**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

(E)-3-(4-(4-FLUOROPHENYL)-5-METHOXYMETHYL-2,6-BIS(1-METHOXYMETHYL)PYRIDIN-3-YL)PROP-2-ENAL ((E)-3-(4-(4-FLUOROPHENYL)-5-METHOXYMETHYL-2,6-BIS(1-METHOXYMETHYL)PYRIDIN-3-YL)PROP-2-ENAL)

ID: 177964-68-0

%: **0.0100 - 5.0000**GS: **LT-UNK**RC: **None** NANO: **No** ROLE: **Anti-bacterial Additive**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

EYE IRRITATION

EU - R-phrases

R36 - Irritating to eyes

SKIN SENSITIZE

EU - R-phrases

R43 - May cause sensitization by skin contact

SKIN SENSITIZE

EU - GHS (H-Statements)

H317 - May cause an allergic skin reaction

EYE IRRITATION

EU - GHS (H-Statements)

H319 - Causes serious eye irritation

SUBSTANCE NOTES:

%: **0.0100 - 7.0000**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Plasticizer**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority 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.

OTHER	Environmental Product Declaration (EPD) by Labeling Sustainability		
CERTIFYING PARTY: Third Party	ISSUE DATE: 2017-	EXPIRY DATE: 2022-	CERTIFIER OR LAB: Institute for
APPLICABLE FACILITIES: Mexico City Plant/ CDMX	08-01	08-01	Environmental Research and
Airport			Education
CERTIFICATE URL:			
CERTIFICATION AND COMPLIANCE NOTES:			

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

Product Components and Corresponding ASTM Standards: Portland Cement ASTM C150 Portland Cement, Fly Ash ASTM C618 Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete, Natural or Crushed Aggregate ASTM C33 Concrete Aggregates, Admixtures ASTM C494 Chemical Admixtures for Concrete, Silica Fume ASTM C1240 Standard Specification for Silica Fume Used in Cementitious Mixtures, Batch Water ASTM C1602 Mixing Water Used in Production of Hydraulic Cement Concrete.



MANUFACTURER INFORMATION

MANUFACTURER: **Holcim Mexico, S.A. de C.V.**
ADDRESS: <http://www.holcim.com.mx/>
CDMX Ciudad de México 11560, Mexico
WEBSITE: <http://www.holcim.com.mx/>

CONTACT NAME: **Ibette Sosa**
TITLE: **Gerencia Ambiental**
PHONE: **5557240000**
EMAIL: ibette.sosa@lafargeholcim.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	GLO Global warming	PHY Physical Hazard (reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive toxicity
DEV Developmental toxicity	MUL Multiple hazards	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	OZO Ozone depletion	LAN Land Toxicity
GEN Gene mutation	PBT Persistent Bioaccumulative Toxic	NF Not found on Priority Hazard Lists

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible Benchmark 1
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator Likely Benchmark 1
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS Unknown (no data on List Translator Lists)
BM-U Benchmark Unspecified (insufficient data to benchmark)	

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.