

CLASSIFICATION: CAFCO 400

PRODUCT DESCRIPTION: CAFCO® 400 is a medium density, Wet Mix Spray-Applied Fire Resistive Material (SFRM), designed to provide fire protection for structural steel where higher levels of physical abuse or traffic may be anticipated. CAFCO 400 is a Portland cement based formulation which provides protection in virtually any environment where a medium density material is specified. The thermal performance advantages of CAFCO 400 result in reduced installed costs and provide industry leading physical performance and application efficiencies that are unsurpassed. Offers the best fire resistance performance per unit thickness of any Medium Density Wet Mix SFRM. CAFCO 400 exceeds the current IBC bond strength requirement of ≥ 430 psf for buildings over 75 ft. in height and 1000 psf for buildings over 420 ft. in height.

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 1 of 1 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
CAFCO 400 [PORTLAND CEMENT LT-P1 | END | CAN VERMICULITE NoGS
LIMESTONE; CALCIUM CARBONATE LT-UNK BENTONITE LT-UNK
CELLULOSE, MICROCRYSTALLINE NoGS SOLID GLASS AND GLASS /
MINERAL FIBER (SEE VARIANTS) LT-UNK | 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:

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

Material (g/l): zero Regulatory (g/l): 50
Does the product contain exempt VOCs: No
Are ultra-low VOC tints available: N/A

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

VOC emissions: CDPH Standard Method V1.1 (Section 01350/CHPS) - Classroom & Office scenario
VOC content: EPA Method 24 - Volatile Matter Content (EPA 24)
Other: ILFI Declare - Red List Free

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: 2018-10-19

PUBLISHED DATE: 2018-12-10

EXPIRY DATE: 2021-10-19



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

CAFCO 400

%: 0.0000 - 100.0000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Impurities are displayed ingredients within the HPD

OTHER MATERIAL NOTES: Portland-Cement Based, Wet Spray, Cementitious, Applied Fireproofing Material

PORTLAND CEMENT

ID: 65997-15-1

%: 40.0000 - 60.0000

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:

VERMICULITE

ID: 1318-00-9

%: 15.0000 - 30.0000

GS: NoGS

RC: None

NANO: No

ROLE: Aggregate

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

LIMESTONE; CALCIUM CARBONATE

ID: 1317-65-3

%: 5.0000 - 20.0000

GS: LT-UNK

RC: None

NANO: No

ROLE: Naturally Occurring

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

BENTONITE

ID: 1302-78-9

#: 1.0000 - 10.0000	GS: LT-UNK	RC: None	NANO: No	ROLE: Thickening Agent
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

CELLULOSE, MICROCRYSTALLINE

ID: 9004-34-6

#: 1.0000 - 10.0000	GS: NoGS	RC: PostC	NANO: No	ROLE: Filler
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

SOLID GLASS AND GLASS / MINERAL FIBER (SEE VARIANTS)

ID: 65997-17-3

#: 0.0000 - 1.0000	GS: LT-UNK	RC: None	NANO: No	ROLE: Reinforcement
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

EU - GHS (H-Statements)

H351 - Suspected of causing cancer

SUBSTANCE NOTES:

QUARTZ

ID: 14808-60-7

#: Impurity/Residual	GS: LT-1	RC: None	NANO: No	ROLE: Impurity/Residual
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

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

New Zealand - GHS

6.7A - Known or presumed human carcinogens

CANCER

Japan - GHS

Carcinogenicity - Category 1A

CANCER

Australia - GHS

H350i - May cause cancer by inhalation

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.

VOC EMISSIONS

CDPH Standard Method V1.1 (Section 01350/CHPS) - Classroom & Office scenario

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2017-08-01**

EXPIRY DATE:

CERTIFIER OR LAB: **UL Environmental**

APPLICABLE FACILITIES: **Stanhope, NJ Houston, TX San Bernardino, CA**

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **Report# 18652-03**

VOC CONTENT

EPA Method 24 - Volatile Matter Content (EPA 24)

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2005-04-04**

EXPIRY DATE:

CERTIFIER OR LAB: **ITI Anti-Corrosion, Inc.**

APPLICABLE FACILITIES: **Stanhope, New Jersey Houston, Texas San Bernardino, California**

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES:

OTHER

ILFI Declare - Red List Free

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2018-09-01**

EXPIRY DATE: **2019-09-01**

CERTIFIER OR LAB: **International Living Future Institute**

APPLICABLE FACILITIES: **Stanhope, NJ San Bernardino, CA Houston, TX**

CERTIFICATE URL: <https://living-future.org/declare-products/cafco-400/>

CERTIFICATION AND COMPLIANCE NOTES: **ISK-0010, ISK-0011, ISK-0012**

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

Impurities are displayed ingredients within the HPD. Isolatek International provides passive fireproofing materials under the CAFCO® and FENDOLITE® trademarks throughout the Americas and under the ISOLATEK® trademark throughout the remainder of the world.



MANUFACTURER INFORMATION

MANUFACTURER: **Isolatek International**
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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.