Diamon-Fusion® Chemical Vapor Deposition Coating by Diamon-Fusion International

Health Product Declaration v2.2

created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 28461
CLASSIFICATION: 09 96 00 High-Performance Coatings
PRODUCT DESCRIPTION: Diamon-Fusion® low-maintenance protective coating provides a high-performing, water repellent barrier to the glass surface and other silica-based substrates. Surfaces treated with DFI's Diamon-Fusion are easier to clean, require less frequent cleanings, are 100% optically clear, and UV stable. When using a DFI coating machine, Diamon-Fusion is applied via a chemical vapor deposition (CVD) process which consists of a two-part system mechanically applied. This HPD covers the Diamon-Fusion application using DFI's CVD application system, including CVD part 1 and CVD part 2. Diamon-Fusion is professionally applied by a fabricator, and thus is fully bonded with the substrate prior to delivery to the job site.

Section 1: Summary

Nested Method / Material 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
- ( ) Other

Residuals/Impurities
Considered in 1 of 1 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.

Screened ( ) Yes Ex/SC (•) Yes ( ) No

All substances screened using Priority Hazard Lists with results disclosed.

Identified ( ) Yes Ex/SC ( ) Yes (•) No

One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow 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

DIAMON-FUSION® CHEMICAL VAPOR DEPOSITION COATING [
UNDISCLOSED LT-P1 | MAM | SKI | EYE | PHY UNDISCLOSED LT-P1 |
MAM UNDISCLOSED BM-2 | RES | MAM | SKI]

Number of Greenscreen BM-4/BM3 contents ... 0

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

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 1000 parts per million (ppm) in the finished product, along with the role and percent weight. Substances not "Identified" are those considered proprietary to the manufacturer, and thus are "Undisclosed" on this HPD.

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: CDPH Standard Method – Not tested

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: 2022-05-05
PUBLISHED DATE: 2022-05-05
EXPIRY DATE: 2025-05-05

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

DIAMON-FUSION® CHEMICAL VAPOR DEPOSITION COATING **%: 100.0000**

MATERIAL THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Other: Mixture

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were “Considered”, as outlined in Emerging Best Practices. No residuals or impurities are known or expected to be present at or above the Content Inventory Threshold indicated that have a GS score of BM-1, LT-1, LT-P1 or NoGS based on information provided in supplier SDS and as predicted by process chemistry (Pharos CML).

OTHER MATERIAL NOTES: When using a DFI coating machine, Diamon-Fusion is applied via a chemical vapor deposition (CVD) process which consists of a two-part system mechanically applied. This HPD covers the Diamon-Fusion application using DFI’s CVD application system, including CVD part 1 and CVD part 2. Diamon-Fusion is professionally applied by a fabricator, and thus is fully bonded with the substrate prior to delivery to the job site.

UNDISCLOSED ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-05-05 21:47:27**

%: **45.0000 - 55.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]

SUBSTANCE NOTES: Substance to remain proprietary to manufacturer. Substance has been screened against HPD Priority Lists using the HPD Builder with results disclosed. Substance is not included on the Living Building Challenge (LBC) Red List Chemical Guide Version 4.0.

UNDISCLOSED ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-05-05 21:47:28**

%: **45.0000 - 55.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances

SUBSTANCE NOTES: Substance to remain proprietary to manufacturer. Substance has been screened against HPD Priority Lists using the HPD Builder with results disclosed. Substance is not included on the Living Building Challenge (LBC) Red List Chemical Guide Version 4.0.

UNDISCLOSED ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-05-05 21:47:28**

%: **0.1000 - 1.0000** GS: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RES	AOEC - Asthmagens	Asthmagen (Rr) - irritant-induced
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]

SUBSTANCE NOTES: Substance to remain proprietary to manufacturer. Substance has been screened against HPD Priority Lists using the HPD Builder with results disclosed. Substance is not included on the Living Building Challenge (LBC) Red List Chemical Guide Version 4.0. GreenScreen Benchmark® assessment score of BM-2 was provided by the HPD Builder Tool.

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 – Not tested

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: N/A
CERTIFICATE URL:

ISSUE DATE: 2019-02-20 EXPIRY DATE: CERTIFIER OR LAB: N/A

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

Protect the glass on commercial buildings from environmental damage, while reducing maintenance costs up to 50% by applying Diamon-Fusion protective coating. One application yields multiple benefits. Similar in functionality to a non-stick cooking pan, Diamon-Fusion is an ultra-thin transparent barrier that adheres to the surface of the glass to repel dirt, water, and debris for an easy-to-clean solution. Diamon-Fusion keeps glass looking cleaner for longer and provides protection again wear and tear for entrance doors and storefronts. Additionally, treating shower glass with Diamon-Fusion eliminates the need for any harsh chemical cleaners, the glass stays cleaner for longer, and can easily be cleaned with water and a simple wipe down.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Diamon-Fusion International**
ADDRESS: **9361 Irvine Boulevard**
Irvine CA 92618, USA
WEBSITE: **www.dfisolutions.com**

CONTACT NAME: **Syndi Sim**
TITLE: **Vice President, Marketing**
PHONE: **1.888.344.4334**
EMAIL: **ssim@diamonfusion.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
CAN Cancer
DEV Developmental toxicity
END Endocrine activity
EYE Eye irritation/corrosivity
GEN Gene mutation
GLO Global warming
LAN Land toxicity
MAM Mammalian/systemic/organ toxicity
MUL Multiple
NEU Neurotoxicity
NF Not found on Priority Hazard Lists
OZO Ozone depletion
PBT Persistent, bioaccumulative, and toxic
PHY Physical hazard (flammable or reactive)
REP Reproductive
RES Respiratory sensitization
SKI Skin sensitization/irritation/corrosivity
UNK Unknown

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 (due to insufficient data)
LT-P1 List Translator Possible 1 (Possible Benchmark-1)
LT-1 List Translator 1 (Likely Benchmark-1)
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.)
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.