Drago® Wrap Vapor Intrusion Barrier by Stego Industries, LLC

Health Product Declaration v2.3

created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 29561
CLASSIFICATION: 07 26 00 Vapor Retarders
PRODUCT DESCRIPTION: Drago Wrap is specifically engineered to serve as a barrier to volatile organic compounds (VOCs). Through patented and trade secret processes, Drago Wrap combines uniquely designed barrier materials with the flexibility and strength of a high-performance polyolefin film into an easy-to-install barrier against hydrocarbons and chlorinated solvents. It provides Owners, Developers, and Engineers a high-performing solution to transform brownfield sites into healthy built environments. Additional CSI MasterFormat designation: 03 30 00

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
- ○ Other

Residuals/Impurities Evaluation
- ○ Completed
- ○ Partially Completed
- ◉ Not Completed

Explanation(s) provided :
- ◉ Yes ○ No

For all contents above the threshold, the manufacturer has:

Characterized ◉ Yes ○ No
Provided weight and role.

Screened ○ Yes ◉ No
Provided screening results using HPDC-approved methods.

Identified ○ Yes ◉ No
Provided name and CAS RN or other identifier.

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.

PRODUCT | MATERIAL OR SUBSTANCE | *RESIDUAL OR IMPURITY* GREENSCREEN SCORE | HAZARD TYPE

DRAGO® WRAP VAPOR INTRUSION BARRIER [UNDISCLOSED LT-UNK | | MUL UNDISCLOSED LT-UNK | UNDISCLOSED LT-UNK | | CAN UNDISCLOSED LT-UNK | UNDISCLOSED LT-P1 | RES | SKI | MAM | EYE | | MUL | PHY | AQU | DEV COPPER LT-P1 | RES | GEN | EYE | | MUL | CAN | MAM | SKI | AQU]

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

Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... LT-P1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

*** Manufacturer has opted for the basic inventory display – chemical substances are listed by weight in the entire product instead of grouped by material. *** We have worked closely with our suppliers to ensure the least toxic ingredients are chosen while maintaining required performance characteristics. *** Drago Wrap contains no VOC's.

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

No pre-checks completed or disclosed.

Third Party Verified?
- ○ Yes
- ◉ No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #:

SCREENING DATE: 2022-07-27
PUBLISHED DATE: 2022-08-11
EXPIRY DATE: 2025-07-27

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 2.3, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-3-standard

DRAGO® WRAP VAPOR INTRUSION BARRIER

PRODUCT THRESHOLD: **Per GHS SDS** RESIDUALS AND IMPURITIES EVALUATION COMPLETED: **No**

RESIDUALS AND IMPURITIES NOTES: **Due to the physical nature of the product-- specifically, the manner in which ingredients are physical bound in the polymer matrix-- and the quality built into the sourcing and manufacturing processes, no attempt has been made to catalogue or quantify residuals or impurities at this time.**

OTHER PRODUCT NOTES: **Variation in processing necessitates that a range of values be reported for this substance.**

UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-29 11:01:19**

%: **0.0000 - 95.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	EC - CEPA DSL	Persistent
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: **The polyethylene blend, which provides the physical structure of the material and lends the product its specialized performance characteristics, represents a Trade Secret.**

UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-29 11:01:47**

%: **0.0000 - 95.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	EC - CEPA DSL	Persistent

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: **The polyethylene blend, which provides the physical structure of the material and lends the product its specialized performance characteristics, represents a Trade Secret.**

UNDISCLOSED ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-29 11:02:12**

%: **0.0000 - 95.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	EC - CEPA DSL	Persistent
CAN	IARC	Group 3 - Agent is not classifiable as to its carcinogenicity to humans

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The polyethylene blend, which provides the physical structure of the material and lends the product its specialized performance characteristics, represents a Trade Secret.

UNDISCLOSED ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-29 11:02:35**

%: **0.0000 - 20.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	EC - CEPA DSL	Persistent

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The polyethylene blend, which provides the physical structure of the material and lends the product its specialized performance characteristics, represents a Trade Secret.

UNDISCLOSED ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-29 11:03:11**

%: **0.0000 - 20.0000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H317 - May cause an allergic skin reaction [Skin sensitization - Category 1]
RES	EU - GHS (H-Statements) Annex 6 Table 3-1	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled [Respiratory sensitization - Category 1]
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	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]
MAM	GHS - Australia	H302 - Harmful if swallowed [Acute toxicity (oral) - Category 4]
MAM	GHS - New Zealand	Acute oral toxicity category 4
	EC - CEPA DSL	Persistent
MUL	Québec CSST - WHMIS 1988	Class D2A - Very toxic material causing other toxic effects
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)
MUL	German FEA - Substances Hazardous to Waters	Class 1 - Low Hazard to Waters
MUL	Québec CSST - WHMIS 1988	Class D2B - Toxic material causing other toxic effects
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H302 - Harmful if swallowed [Acute toxicity (oral) - Category 4]
MAM	Québec CSST - WHMIS 1988	Class D1B - Toxic material causing immediate and serious toxic effects
PHY	Québec CSST - WHMIS 1988	Class E - Corrosive materials
SKI	GHS - New Zealand	Skin corrosion category 1C
EYE	GHS - New Zealand	Serious eye damage category 1
AQU	GHS - Japan	H402 - Harmful to aquatic life [Hazardous to the aquatic environment (acute) - Category 3]
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
SKI	GHS - Japan	H314 - Causes severe skin burns and eye damage [Skin corrosion / irritation - Category 1]
SKI	GHS - Japan	H317 - May cause an allergic skin reaction [Skin sensitizer - Category 1]
SKI	GHS - Australia	H317 - May cause an allergic skin reaction [Skin sensitization - Category 1]
SKI	GHS - Australia	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
DEV	MAK	Pregnancy Risk Group C
SKI	GHS - New Zealand	Skin sensitisation category 1
RES	GHS - New Zealand	Respiratory sensitisation category 1

RES	GHS - Japan	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled [Respiratory sensitizer - Category 1]
MAM	GHS - Japan	H302 - Harmful if swallowed [Acute Toxicity (oral) - Category 4]
MAM	GHS - Australia	H335 - May cause respiratory irritation [Specific target organ toxicity - single exposure; Respiratory tract irritation - Category 3]
AQU	GHS - Japan	H412 - Harmful to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 3]
SKI	GHS - Malaysia	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
EYE	GHS - Malaysia	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]
MAM	GHS - Australia	H311 - Toxic in contact with skin [Acute toxicity (dermal) - Category 3]
SKI	GHS - Malaysia	H317 - May cause an allergic skin reaction [Skin sensitization - Category 1]
RES	GHS - Australia	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled [Respiratory sensitization - Category 1]
MAM	GHS - Malaysia	H302 - Harmful if swallowed [Acute toxicity (oral) - Category 4]
RES	GHS - Malaysia	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled [Respiratory sensitization - Category 1]

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance

SUBSTANCE NOTES: The additive to the film, which provides the physical structure of the material and lends the product its specialized performance characteristics, represents a Trade Secret.

COPPER ID: **7440-50-8**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-29 11:04:47**

%: **0.0000 - 10.0000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Conductor**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
GEN	GHS - New Zealand	Germ cell mutagenicity category 1
EYE	GHS - New Zealand	Eye irritation category 2
	EC - CEPA DSL	Persistent
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)
CAN	US EPA - IRIS Carcinogens	(1986) Group D - Not classifiable as to human carcinogenicity
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
SKI	GHS - New Zealand	Skin sensitisation category 1
SKI	GHS - Japan	H317 - May cause an allergic skin reaction [Skin Sensitization - Category 1A]
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	GHS - New Zealand	Acute oral toxicity category 2
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products
RESTRICTED LIST	International Living Future Institute (ILFI)	Living Building Challenge 4.0 - Red List of Materials & Chemicals Watch List Substances Considered for Inclusion in the Living Building Challenge Red List

SUBSTANCE NOTES: This component, which provides the physical properties of the material and lends the product its specialized performance characteristics, represents a Trade Secret.

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: All
CERTIFICATE URL:

ISSUE DATE: 2022-07-27
EXPIRY DATE:

CERTIFIER OR LAB: None

CERTIFICATION AND COMPLIANCE NOTES: VOC content is based upon analysis of the ingredients/substances utilized.

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.

DRAGOSEAL® TAPE
MANUFACTURER (OR GENERIC): **Stego Industries, LLC**

HPD URL: https://www.stegoindustries.com/stego-industries-hpd
ACCESSORY TYPE: Other
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Recommended for all installations.

DRAGO® MASTIC
MANUFACTURER (OR GENERIC): **Stego Industries, LLC**

HPD URL: https://www.stegoindustries.com/stego-industries-hpd
ACCESSORY TYPE: Other
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Recommended for all installations.

DRAGOTACK® TAPE
MANUFACTURER (OR GENERIC): **Stego Industries, LLC**

HPD URL: https://www.stegoindustries.com/stego-industries-hpd
ACCESSORY TYPE: Other
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Recommended for all installations.

DRAGO® SEALANT
MANUFACTURER (OR GENERIC): **Stego Industries, LLC**

HPD URL: https://www.stegoindustries.com/stego-industries-hpd
ACCESSORY TYPE: Other
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Recommended for all installations.

DRAGO® SEALANT FORM
MANUFACTURER (OR GENERIC): **Stego Industries, LLC**

HPD URL: https://www.stegoindustries.com/stego-industries-hpd
ACCESSORY TYPE: Other
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Recommended for all installations.

Section 5: General Notes

Drago Wrap Vapor Intrusion Barrier is a multi-layered plastic extrusion that combines uniquely designed materials with only high grade, prime, virgin resins. This game-changing barrier technology provides high performance and longevity, allowing for the redevelopment of brownfield and contaminated sites, creating a healthy built environment. ||

**Stego-defined terms defined at www.stegoindustries.com/legal ||

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Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Stego Industries, LLC**
ADDRESS: **216 Avenida Fabricante**
Suite 101
San Clemente California 92672, USA
WEBSITE: **https://www.stegoindustries.com/products/drago-wrap**

CONTACT NAME: **Page Cotton**
TITLE: **Product Manager**
PHONE: **(877) 464-7834**
EMAIL: **pagecotton@stegoindustries.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
NoGS No GreenScreen.

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, www.greenscreenchemicals.org, and Best Practices for Hazard Screening on the HPDC website (hpd-collaborative.org).

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.