



greenscreen® 2015 Health Product Declaration™

In a continuing effort to forward a progressive sustainability agenda and maintain a strengthening position as an environmentally conscientious product manufacturer, **greenscreen®** has completed the first third party verified Health Product Declaration™ (HPD™) for green facade products.

The **greenscreen®** Health Product Declaration covers a standard (48" x 96") **greenscreen®** panel with a baked on powdercoat finish. The completion and third party verification of the HPD was conducted by Tox Services LLC and includes all intentionally added ingredients assessed to 1,000 ppm as per LEED v4 requirements. The Summary Disclosure Notes state that there was no residual content identified at 1,000 & 10,000 ppm with any of the ingredients present in the final **greenscreen®** product formulation. The expiry date is January 16, 2018.

Described by the Health Product Declaration Collaborative™, the Health Product Declaration™ "is a standard format for reporting product content and associated health information for building products and materials. Building product manufacturers will use it to provide standardized disclosure of product contents, emissions and health information."

By making the **greenscreen®** Health Product Declaration publicly available, it is our hope that the A/E/C, landscape architecture and contracting disciplines will learn to expand their understanding and application of Health Product Declarations in order to discern applicable product solutions in an environmentally appropriate manner.

In addition to the completion of the HPD™, **greenscreen®** has completed a Life Cycle Assessment (LCA) report and models that have been third party verified and is ISO 14040/14044 compliant. For more information or questions regarding the HPD™, LCA or other **greenscreen®** sustainability initiatives, please contact:

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greenscreen®

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Name greenscreen®



Product ID N/A Classification 10 82 00.00 Specialties: Grilles and Screens

Website www.greenscreen.com

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Description greenscreen® is a three dimensional, welded wire trellising system comprised of modular, rigid, lightweight trellis panels and engineered attachments that facilitate the incorporation of vegetation into diverse design applications This HPD covers a standard (48" x 96") greenscreen® panel in the following colors: White, Black, Bronze, Silver, and Green.

Release Date 2015-01-16
Expiry Date 2018-01-16
HPD URL https://tool.hpdcollaborative.org/uploads/files/hpds/66/2584-20150116124544.pdf
All Intentionally Added Ingredients Assessed to 1,000 ppm
Second Party Certifier
Third Party Certificate #Pilot Third Party Verified - ToxServices LLC

SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure: Measured 100 ppm (ideal), Measured 1000 ppm, Predicted by process chemistry, As per MSDS (1,000 & 10,000 ppm), Not disclosed, Other.
Full Disclosure of Intentional Ingredients: Yes, No
Full Disclosure of Known Hazards: Yes, No
Disclosure Notes: There was no residual content present identified at 1,000 & 10,000 ppm with any of the ingredients present in the final greenscreen® product formulation.

Contents in Descending Order of Quantity

IRON , ZINC , Unknown , Unknown , Unknown , EPICHLOROHYDRIN-BISPHENOL A RESIN , Titanium dioxide , Alumina trihydrate , Mica , NEPHELINE SYENITE , Unknown , BISPHENOL A (BPA) , ALUMINUM , TRIGLYCIDYL ISOCYANURATE (TGIC)

Hazards: PBT (Persistent Bioaccumulative Toxic), Cancer, Gene Mutation, Development, Reproductive, Endocrine, Respiratory.
Highest concern GreenScreen score - Benchmark 1: Neurotoxicity, Land toxicity, Multiple, Mammal, Physical hazard, Unknown, Skin or Eye, Global warming, Aquatic toxicity, Ozone depletion.

Total VOC Content: Material (g/L) N/A, Regulatory (g/L) N/A.
Does the product contain exempt VOCs? N/A, Yes, No
Are there VOC-free tints available? N/A, Yes, No

Notes

Certifications + Compliance

VOC Emissions Not tested VOC Content N/A

The HPD Standard is solely a declaration of product content and direct health hazards associated with exposure to its individual contents. It is not a full assessment of environmental impacts from the life cycle of this product. It is not an assessment of risks associated with actual use of the product. It does not address the potential health impacts of substances used or created during manufacture that do not appear in the final product as residuals, nor substances created during combustion or other degradation processes.

This Health Product Declaration was generated following the requirements of the noted Standard version and is valid for a total of three years after date of issue or three months after a substantive change of product contents occurs. Users should verify that this Health Product Declaration is compliant with the most current version of the HPD Standard. Accuracy of claims made in this Health Product Declaration is the sole responsibility of the listed manufacturer and certifier (if applicable). The HPD Collaborative does not warrant any claim made herein, explicit or implicit. The HPD Standard is an "open standard" developed and managed by the HPD Collaborative, a nonprofit organization. For more information, visit hpdcollaborative.org.

CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level.

Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at www.hpdcollaborative.org/hazardlists.

GS: GreenScreen Benchmark; **RC:** Recycled Content, **PC:** Post Consumer, **PI:** Post Industrial (Pre-consumer), **BO:** Both; **Nano:** comprised of nanoscale particles or nanotechnology

Name	CAS RN	% weight	GS	RC	Nano	Role
Hazard A	Warning A					
Hazard B	Warning B					
Hazard C	Warning C					
Hazard D	Warning D					
Hazard E	Warning E					
Notes						
IRON	7439-89-6	90.5 %	LT-U	BO	N	Structure Component
None found	No warnings found on HPD Priority lists					
Maximum ingredient % composition present in the final greenscreen® product formulation						
ZINC	7440-66-6	4.5 %	LT-P1	BO	N	Structure Component
ACUTE AQUATIC	EU H-Statements: H400 - Aquatic Acute 1 - Very toxic to aquatic life (also in EU R-Phrases)					
CHRON AQUATIC	EU H-Statements: H410 - Aquatic Chronic 1 - Very toxic to aquatic life with long lasting effects					
FLAMMABLE	EU H-Statements: H250 Catches fire spontaneously if exposed to air					
REACTIVE	EU H-Statements: H260 In contact with water releases flammable gases which may ignite spontaneously					
RESPIRATORY	AOEC: Asthmagen (ARs) - sensitizer-induced - inhalable forms only					
Maximum ingredient % composition present in the final greenscreen® product formulation						
Unknown	Unknown	1.7 %		U	U	Colorant Component
Unknown	Not disclosed by supplier					
Component of Silver Colorant - Colorant MSDS identifies that with the current knowledge of the supplier, and in the concentrations applicable, the undisclosed ingredient is not considered as hazardous to health or the environment. Maximum ingredient % composition present in the final greenscreen® product formulation						
Unknown	Unknown	1.3 - 1.5 %		U	U	Colorant Component
Unknown	Not disclosed by supplier					
Component of Green Colorant - Colorant MSDS identifies that with the current knowledge of the supplier, and in the concentrations applicable, the undisclosed ingredient is not considered as hazardous to health or the environment. Maximum ingredient % composition present in the final						

Unknown	Unknown	1.3 - 1.5 %		U	U	Colorant Component
Unknown	Not disclosed by supplier					
Component of Black Colorant - Colorant MSDS identifies that with the current knowledge of the supplier, and in the concentrations applicable, the undisclosed ingredient is not considered as hazardous to health or the environment. Range of ingredient % composition present in the final greenscreen® product formulation						
EPICHLOROHYDRIN-BISPHENOL A RESIN	25068-38-6	0.62 - 1.8 %	LT-P1	N	N	Primer Coating Component
EYE IRRITATION	EU R-Phrases: R36: Irritating to eyes. (also in EU H-Statements)					
SKIN IRRITATION	EU R-Phrases: R38: Irritating to skin. (also in EU H-Statements)					
SKIN SENSITIZE	EU R-Phrases: R43: May cause sensitization by skin contact.					
ACUTE AQUATIC	EU R-Phrases: R51: Toxic to aquatic organisms.					
CHRON AQUATIC	EU H-Statements: H411 - Aquatic Chronic 2 - Toxic to aquatic life with long lasting effects					
MULTIPLE	VwVwS: Class 2 Hazard to Waters (also in EPA Action)					
DEVELOPMENTAL	EPA Action: Developmental Effects					
REPRODUCTIVE	EPA Action: Reproductive effects					
Range of ingredient % composition present in the final greenscreen® product formulation						
Titanium dioxide	13463-67-7	0.61 - 1.9 %	LT-1	N	N	Primer Coating Component & Colorant Component
CANCER	NIOSH-C: Occupational carcinogen (also in Prop 65, IARC, MAK)					
Range of ingredient % composition present in the final greenscreen® product formulation						
Alumina trihydrate	21645-51-2	0.55 - 1.1 %	2	N	N	Colorant Component
RESPIRATORY	AOEC: Asthmagen (ARs) - sensitizer-induced - inhalable forms only					
Range of ingredient % composition present in the final greenscreen® product formulation						
Mica	12001-26-2	0.5 - 0.62 %	LT-U	N	N	Primer Coating Component
None found	No warnings found on HPD Priority lists					
Range of ingredient % composition present in the final greenscreen® product formulation						
NEPHELINE SYENITE	37244-96-5	0.4 - 0.6 %	LT-U	N	N	Colorant Component
None found	No warnings found on HPD Priority lists					
Component of Green and Black Colorants. Range of ingredient % composition present in the final greenscreen® product formulation						
Unknown	Unknown	0.1 - 0.2 %		U	U	Colorant Component
Unknown	Not disclosed by supplier					
Component of Green Colorant - Colorant MSDS identifies that with the current knowledge of the supplier, and in the concentrations applicable, the undisclosed ingredient is not considered as hazardous to health or the environment. Range of ingredient % composition present in the final greenscreen® product formulation						
BISPHENOL A (BPA)	80-05-7	0.06 - 0.25 %	1	N	N	Primer Coating Component
DEVELOPMENTAL	NTP-OHAaT: A-Clear evidence of adverse developmental toxicant effects (also in EPA Action)					

REPRODUCTIVE	NTP-OHAaT: B-Some evidence of adverse reproductive toxicant effects (also in EU R-Phrases, EU H-Statements, EPA Action)					
ENDOCRINE	EU ED: Category 1 - In vivo evidence of endocrine disruption activity (also in OSPAR, SIN, TEDX)					
EYE IRRITATION	EU H-Statements: H318 Causes serious eye damage (also in EU R-Phrases)					
SKIN IRRITATION	EU H-Statements: H317 May cause an allergic skin reaction					
SKIN SENSITIZE	EU R-Phrases: R43: May cause sensitization by skin contact. (also in MAK)					
ACUTE AQUATIC	EU R-Phrases: R52: Harmful to aquatic organisms.					
MULTIPLE	VwVwS: Class 2 Hazard to Waters (also in EPA Action)					
Range of ingredient % composition present in the final greenscreen® product formulation						

ALUMINUM	7429-90-5	0.05 - 0.2 %	LT-P1	N	N	Colorant Component
ENDOCRINE	TEDX: Potential Endocrine Disruptor					
RESPIRATORY	AOEC: Asthmagen (ARs) - sensitizer-induced - inhalable forms only					
FLAMMABLE	EU H-Statements: H228 Flammable solid					
REACTIVE	EU H-Statements: H261 In contact with water releases flammable gases					
Range of ingredient % composition present in the final greenscreen® product formulation						

TRIGLYCIDYL ISOCYANURATE (TGIC)	2451-62-9	0.05 - 0.2 %	LT-1	U	N	Colorant Component
GENE MUTATION	EU R-Phrases: R46: May cause heritable genetic damage. (also in EU H-Statements, EU CMR (1), EU SVHC, EU CMR (2))					
RESPIRATORY	AOEC: Asthmagen (ARs) - sensitizer-induced (also in MAK)					
MAMMALIAN	EU R-Phrases: R25: Toxic if swallowed. (also in EU H-Statements)					
EYE IRRITATION	EU H-Statements: H318 Causes serious eye damage (also in EU R-Phrases)					
SKIN IRRITATION	EU H-Statements: H317 May cause an allergic skin reaction					
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.					
MULTIPLE	SIN: Classified CMR (Carcinogen, Mutagen &/or Reproductive Toxicant) (also in VwVwS)					
Colorant component used in White, Black, Silver, and Bronze product colors. Range of ingredient % composition present in the final greenscreen® product formulation						

CERTIFICATIONS AND COMPLIANCE

Certifying Party = First: Manufacturer's self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

Applicable facilities = Manufacturing sites to which testing applies.

Type	Standard or Certification			Certifier or Laboratory
	Certifying Party	Issue Date	Expiry Date	Certificate URL
	Applicable Facilities			
	Notes			
VOC Emissions	Not tested			

VOC Content	N/A		
Recycled Content	Not tested		
Other			

ACCESSORY MATERIALS

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products.

Note: This declaration is not intended to address hazards of the installation process.

Required or Recommended Product	URL for Companion Health Product Declaration
Condition when required or recommended and/or other notes	
Edge Trim	N/A
Edge Trim is used as closure strips at the edges of the greenscreen® panels - recommended on panel edges adjacent to pedestrian traffic or where edge treatment for plant maintenance is desired	
Adjustable Mounting Clips	N/A
Clips are used as a flush mounting clip for wall mounted or steel mounted greenscreen® panels - clips provide full depth panel support for uplift and downloading	
Standoff Brackets	N/A
Standoff brackets are recommended for use as a mounting bracket for wall mounted greenscreen® panels to support screens held off the wall surface at a maximum of 18"	
Snap Clips	N/A
Snap clips are used for mounting greenscreen® panels in freestanding, flush applications	
"C" Clips	N/A
"C" clips are used on greenscreen® panels with channel or edge trim to hold screen edge to a vertical wall, column or post, or to attach a screen bottom edge to a horizontal slab or beam	

Steel Posts & Post Caps	N/A
Steel posts are used for freestanding modular screens and fences	
Planter Straps	N/A
Planter straps are used for mounting standard 4' wide greenscreen® panels to custom planters	
Spacer	N/A
Spacers are used with mounting clips to provide a clear space between the clip and the mounting surface/structure or used for spacing mounting clips away from wall or floor surfaces	
Flex "C" Ring	N/A
Flex "C" rings are used for "in-field" joining of greenscreen® panels together edge to edge. Can be factory or field applied	

NOTES

Life Cycle Assessment: A Life Cycle Assessment (LCA) was performed on the greenscreen® product by PE International, Inc. on October 31, 2011. The approach used to carry out the LCA is compliant with the ISO 14040 (2006) and ISO 14044 (2006) principles and requirements. For more information, please visit the Education + Research tab on the greenscreen® website at: www.greenscreen.com