Mineral Wool Covering Panels
by METALLEMPORIKI TH. MAKRIS S.A.

Health Product Declaration v2.3

THIRD-PARTY VERIFIED created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 888288953344
CLASSIFICATION: 07 40 00 Roofing and Siding Panels
PRODUCT DESCRIPTION: This HPD covers selected Mineral Wool Covering Panels manufactured by Metallemporiki Th. Makris S.A. In general, these systems consist of two profiled steel sheets and a mineral wool core with a density of 100 or 120 kg/m3 bonded with the use of special adhesive. This HPD pertains to the products that both outer and inner facings are made of galvanized steel DX51D+Z100, prepainted with polyester powder coating (25μm). Steel facings have varying thicknesses ranging from 0.37 mm to 0.9mm and they differ in the configuration of the outer sheets, which is trapezoidal for roof panels applications and linear for wall panels applications. These systems are produced for both wall and roof applications in various thicknesses ranging from 50 to 200 mm.

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
- ( ) Other

Residuals/Impurities Evaluation
Completed in 3 of 3 Materials

Explanation(s) provided for Residuals/Impurities?
- (•) 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.

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

MINERAL WOOL CORE [STONE WOOL BIOSOLUBLE LT-UNK | MAM | CAN **CURED ORGANIC BINDING MATERIAL** LT-UNK **UNDISCLOSED** BM-2 | PBT **] PRE-PAINTED GALVANIZED STEEL [IRON** LT-P1 | END **ZINC** LT-P1 | MUL | AQU *MANGANESE* LT-P1 | END | MUL | REP | MAM | AQU **POLYESTER RESINS** NoGS **TITANIUM DIOXIDE** BM-1* | CAN | END | MAM **BARIUM SULFATE** BM-2 | CAN | MAM **] GLUE [POLYOL** LT-UNK | EYE **ISOCYANATE** LT-UNK | CAN | RES | EYE | SKI | MAM **]**

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:

The material content variation is over 10% due to varying thicknesses of the product components leading to proportional differences in the content of the insulation board and the facings of the panels.

*Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. For this reason, this score is intentionally omitted from the "Contents highest concern" line above. See HPDC's Special Conditions policy for more information.

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: Emicode EC1 - very low emission
LCA: Environmental Product Declaration

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4.1 Option 1.

Third Party Verified?
- (•) Yes
- ( ) No

PREPARER: Self-Prepared
VERIFIER: Business Quality Verification P.C.
VERIFICATION #: ejv-19797

SCREENING DATE: 2024-04-30
PUBLISHED DATE: 2024-05-08
EXPIRY DATE: 2027-04-30

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

MINERAL WOOL CORE

%: 25.1900 - 78.1200

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Other: Man-made vitreous fibres (MMVF)

RESIDUALS AND IMPURITIES NOTES: Based on supplier HPD and disclosure letter for this material, no residuals and impurities are expected above the declared product threshold.

OTHER MATERIAL NOTES: The panels are manufactured in a variety of thicknesses ranging from 50 to 200 mm, with the mineral wool core is available in two distinct densities, 100 and 120 kg/m3. These factors collectively result in different proportions of mineral wool core within the final product and a weight range exceeding 20%.

STONE WOOL BIOSOLUBLE

ID: **65997-17-3**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-04-30 3:04:12**

%: **95.0000 - 100.0000**

GreenScreen: **LT-UNK**

RC: **Both**

NANO: **No**

SUBSTANCE ROLE: **Insulator**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
CAN	GHS - Japan	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions Exempted from REACH Annex V listing due to intrinsic safety

SUBSTANCE NOTES: The substance has been registered under EU REACH legislation as: Man-made vitreous (silicate) fibres with random orientation with alkaline and alkali earth oxides (Na2O+K2O+CaO+ MgO+BaO) content greater than 18% by weight and fulfilling one of the Nota Q conditions. [EC Number: 926-099-9]

The recycled content is mainly stonewool from building construction and demolition wastes, cut offs from other industries and wastes from manufacturing processes.

CURED ORGANIC BINDING MATERIAL

ID: **25104-55-6**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-04-30 3:04:12**

%: **0.0000 - 5.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	International Living Future Institute (ILFI)	Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2024 Red List substances to avoid in Living Building Challenge V4.0 projects

SUBSTANCE NOTES:

UNDISCLOSED ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-04-30 3:04:12**

%: **0.0000 - 0.5000** GreenScreen: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Water resistance**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: During mineral wool core production, a prefabricated aqueous emulsion of oils is spayed on the fibers with dust prevention and water repellent scope. The actual sum of those substances is below 0.1% of final product, but the maximum percentage is stated as 0.5%, considering also the water content of emusion that is sprayed during manufacturing process.

PRE-PAINTED GALVANIZED STEEL **%: 19.8400 - 71.8200**

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Pre-painted galvanized sheets are made of steel of DX51D grade, with Z100 galvanization and painted with a polyester powder coating. Galvanized steel facings are compliant with EN 10346 standard and the chemical composition is directly tested by the manufacturers, and addressed on the delivered Mill tests. Residuals and impurities were considered based on manufacturers' testing certifications.

OTHER MATERIAL NOTES: The panels are produced in various thicknesses ranging from 50 to 200 mm, and the steel sheets are also available in varying thicknesses ranging from 0.37 to 0.90 mm. These factors collectively lead to varying proportions of Pre-painted Galvanized steel in the final product and a weight range higher than 20%.

IRON ID: **7439-89-6**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-04-30 3:04:12**

%: **93.3176 - 95.8240** GreenScreen: **LT-P1** RC: **PostC** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: On a weighted average basis, steel coils supplied and used in the Mineral Wool Covering Panels contain on average 0% pre-consumer recycled material and 25% post-consumer recycled material.

ZINC

ID: **7440-66-6**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-04-30 3:04:13**

%: **1.3873 - 3.2809** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Galvanizing**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Antimicrobials
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

SUBSTANCE NOTES:

MANGANESE

ID: **7439-96-5**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-04-30 3:04:12**

%: **1.1467 - 1.1775** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 2]
AQU	GHS - Japan	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
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

SUBSTANCE NOTES:

POLYESTER RESINS

ID: **40471-09-8**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-04-30 3:04:12**

%: **0.2674 - 0.6333** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Powder coating**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

TITANIUM DIOXIDE

ID: **13463-67-7**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-04-30 3:04:12**

%: **0.1215 - 0.2879** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen**
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route**
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources**
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value**
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor**
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels**
CAN	IARC	Group 2b - Possibly carcinogenic to humans**
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]**
CAN	GHS - Japan	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]**
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]**

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
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	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Formulated Consumer Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Cosmetics & Personal Care Products
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE Safer Chemicals Ingredients list (SCIL) Colorants - Green Circle (Verified Low Concern)

SUBSTANCE NOTES: **Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. See HPDC's Special Conditions policy for more information. Manufacturer's Safety Data Sheet (SDS), if applicable, may offer occupational health and safety information.

BARIUM SULFATE ID: **7727-43-7**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-04-30 3:04:13**

%: **0.0851 - 0.2015** GreenScreen: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
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	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Cosmetics & Personal Care Products

SUBSTANCE NOTES:

GLUE

%: 0.8000 - 2.7700

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Product components were considered based on supplier SDS. Based on the SDS and due to the low concentration of the glue in the final product, no residuals and impurities are expected to be above the declated product threshold.

OTHER MATERIAL NOTES: The glue is used to join the steel sheet on both sides of the Mineral Wool Core. The glue allows the laminated panel to absorb the stresses of the structural weight, while it provides excellent thermal adaptability. It consists by two components, Polyol and Isocyanate.

POLYOL

ID: **25791-96-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-04-30 3:04:13**

%: **50.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Reagent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	GHS - New Zealand	Eye irritation category 2

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents

SUBSTANCE NOTES:

ISOCYANATE

ID: **9016-87-9**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-04-30 3:04:13**

%: **50.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
EYE	GHS - New Zealand	Eye irritation category 2
SKI	GHS - Australia	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
EYE	GHS - Australia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
CAN	GHS - Japan	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	Québec CSST - WHMIS 1988	Class D1A - Very toxic material causing immediate and serious toxic effects
MAM	GHS - Australia	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2]
MAM	GHS - Japan	H330 - Fatal if inhaled [Acute toxicity (inhalation: dust, mist) - Category 2]
CAN	GHS - Australia	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	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 Formulated Consumer Products

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 — **Emicode EC1 - very low emission**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: All
CERTIFICATE URL:

ISSUE DATE: 2023-11-20 00:00:00
EXPIRY DATE: 2028-11-20 00:00:00

CERTIFIER OR LAB: Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.

CERTIFICATION AND COMPLIANCE NOTES: The certified product is Mineral Wool Wall covering panel of 100mm thickness.

LCA — **Environmental Product Declaration**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: All
CERTIFICATE URL:
https://www.environdec.com/library/epd10915

ISSUE DATE: 2024-02-04 00:00:00
EXPIRY DATE: 2029-02-03 00:00:00

CERTIFIER OR LAB: Business Quality Verification P.C.

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.

FASTENER
MANUFACTURER (OR GENERIC): **Generic**

HPD URL: No HPD available
ACCESSORY TYPE: Fastner
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Used to securely attach sandwich panels to the supporting structure. They ensure proper alignment and structural integrity.

Section 5: General Notes

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **METALLEMPORIKI TH. MAKRIS S.A.**
ADDRESS: **6th km of Larissa – Sikurio road**
Larissa, Thessaly 41004
COUNTRY: **Greece**

WEBSITE: **www.metallemporiki.gr**
CONTACT NAME: **Dimitris Zdrakas**
TITLE: **Plant Manager**
PHONE: **2410575207**
EMAIL: **sales@metallemporiki.gr**

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.