GLOBAL GREEN TAG INTERNATIONAL





IEdiSA Graphenstone® Mineral Paints & Primers

Graphenstone® Mineral Paints and Primers are lime based interior and exterior paints containing graphene reinforcement. The paints and primers reduce condensation and have anti-bacterial and anti-mould properties. The lime used in the paints and primers is manufactured using Arabic furnaces, using biomass as energy.

Products/Ranges: CSI Masterformat:

Licenced Site/s: Licence Number: Licence Date: Valid To: Standard: Screening Date: PhD URL:

RISK ASSESSMENT

IN USE HEALTH

HEALTHRATE

Mineral Paints & Primers Product Stages Assessed: Raw materials, manufacturing, in use 09 91 13 Exterior Painting, 09 91 23 Interior Painting, 90 94 00 Decora-tive Finishing, 09 97 43 Antimicrobial Coatings, 09 97 23 Concrete and Masonry Coatings

Sevilla, Spain GRA-001-v3-2017-PHD 3 October 2017 3 October 2020 GGT International v4.0 11 July 2017 http://www.globalgreentag.com/wp-content/ uploads/2017/10/190605_GRA_Mineral-Paints-and-Primers_PHD_v4.pdf



This PhD ceases currency when original GreenTag GreenRate/LCARate certification expires or is revoked. Please check www.globalgreentag.com for currency. Note disclaimer over.

PhD Summary Percentage Assessed: 100%	Inventory Threshold: 100ppm Product Level	Inventory Method: Nested Materials						
GreenTag Banned List Compliant								
Meets Indoor Air Quality VOC emission requirem	ents, for Green Star							
Contributes towards satisfying Feature 04 VOC I Precautionary Material Selection, and Feature 97 Material	Contributes towards satisfying Feature 04 VOC Reduction Part 1 Interior Paints and Coatings, Feature 26 Enhanced Material Safety Part 1 Precautionary Material Selection, and Feature 97 Material Transparency Part 1 Material Information, under the WELL Building Standard [™] v1.0							
Contributes towards satisfying X12 ShortTerm Optimised Materials, X14 Material Transparency Part	Contributes towards satisfying X12 ShortTerm Emission Control Part 1 Manage Product Emissions, X13 Enhanced Material Precaution Part 1 Select							
No worker exposure to Carcinogens, Mutagens,	No worker exposure to Carcinogens, Mutagens, Reproductive Toxicant or Endocrine Disruptors							
No user exposure to Carcinogens, Mutagens, Re	No user exposure to Carcinogens, Mutagens, Reproductive Toxicant or Endocrine Disruptors							
No environmental exposure to Carcinogens, Mutagens, Reproductive Toxicant or Endocrine Disruptors								
INGREDI ASSESSMENT:	ENT HAZARD DISCLOSURE, RISK ENT, & IN USE HEALTH, % by mass.	Declared by: Global GreenTag						
INGREDIENT HAZARD DISCLOSURE	26.8%	International Pty Ltd						

100%

36.0%



David Baggs CEO & Program Director Verified compliant with: ISO 14024 & ISO 17065

Product Name, Manufacturer Name, PhD URL

1.0 Scope

The Global GreenTag International (GGT) Product Health Declaration (PhD) has been designed to provide an additional level of service to the green product sector in facilitating an easier understanding of both the hazard and risk associated with any certified products and is intended to indicate:

- Chemical hazards of both finished product and unique ingredients to a minimum level of 100ppm for each homogeneous ingredient throughout the
 product life cycle, (including any VOC or other gaseous emissions);
- An assessment of exposure or risk associated with ingredient handling, product use, and disposal in relation to established mitigation and management processes;

It is not intended to assess:

- i. substances used or created during the manufacturing process unless they remain in the final product; or
- ii. substances created after the product is delivered for end use (e.g., if the product unusually degrades, combusts or otherwise changes chemical composition).

GGT PhDs are only issued to products that have passed GGT Standards' certification requirements. The Level of Assessment (BronzeHEALTH, SilverHEALTH GoldHEALTH or PlatinumHEALTH) rating relates ONLY to GGT Standard Sustainability Assessment Criteria 3, and is declared separately to the overall Bronze, Silver Gold or Platinum Green Tag Certification Mark Tier Levels.

1.2 Preparing an PHD

GGT PhDs are prepared using Hazard Classifications from the UN Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and as an outcome of a successful Application for Certification. Assessments are undertaken by GGT Qualified Exemplar Global Lead Auditors and subsequently accepted for Certification by the GGT Program Director (also a Qualified Exemplar Global Lead Auditor) under the GGT International Standard v4.0, Personal Products Standard v1.0, and Cleaning Products Standard v1.0 and above Program Rules.

1.3 External Peer Review

Every GGT PhD is independently peer reviewed by an external Consultant Toxicologist and Member of the Australian College of Toxicology & Risk Assessment.

2.0 Declaration of Ingredients

Where a manufacturer wishes recognition under a rating program that requires transparency of ingredients such as LEED v4.0, Living Building Challenge, Estidama etc., the following information is declared from audit:

Colour	Ingredient Name
Green	Ideal- Low No Comment required
Yellow	Medium to Low No Comment, or 'Issue of Concern' required depending on % of ingredient.
Orange	Moderate 'Issue of Concern' or 'Red Light' Comment depending on % of ingredient. Limit 10%
Red	Problematic (Red): Target for Phase 'Issue of Concern' or 'Red Light' Comment depending on % of ingredient. Strict Upper Limit of 1%
Grey	Uncategorised Not able to be categorised due to lack of toxicity impact information.
Black	Banned Ingredients POPs, SVHCs plus a wide range of compounds depending on specific Standard requirements

Global GreenTag International Pty Ltd (Global GreenTag) is not a medical professional organisation. Global GreenTag does not purport to provide medical advice, and makes no warranty, representation, or guarantee regarding the declaration that it provides in relation to any allergies, chemical sensitivities or any other medical condition, nor does Global GreenTag assume any liability whatsoever arising out of the application or use of any product or piece of equipment that has been chemically assessed by Global GreenTag.

The chemical assessments carried out provide transparent information peer reviewed by a consultant toxicologist regarding the chemical make-up and ingredients of certain materials and products, but such assessments are not to be taken as any form of medical assessment or health advice and are not targeted towards providing specific solutions to allergenic conditions or any other type of medical concerns.

Users must carry out their own investigations if they are concerned about specific medical conditions and the impact of certain products or ingredients in relation to specific medical concerns.

Global GreenTag takes no responsibility and is not liable in any way with respect to any medical or health issues arising from a person's use of materials or products that have been chemically assessed by Global GreenTag. Global GreenTag shall not be liable for any direct, indirect, punitive, incidental, special or consequential damages to property or life whatsoever, arising out of or connected with the use or misuse of any materials or products that have been assessed by Global GreenTag.

Ingredient Name	CAS Number OR Function	Proportion in finished product	Ingredient Assessment (Raw)	Whole Of Life Assessment	In Use Health Assessment	Comment
Material 1: Calcium H	ydroxide					
Calcium Hydroxide	Natural binder with graphene. Used as base of the paint and to include whiteness and coverage	60-80%				The substance is embedded in the material, the hazards related to the substance will not be present when it is used in the product. Therefore, it is not expected to cause harm to the users. Recycled Content: None Nanomaterials: Yes
Remaining substances	Unknown	0-10%		-		Remaining substance is unknown, however as no hazard is declared, it is not expected to impose harm to the users. Recycled Content: Unknown Nanomaterials: unknown



Calcing CationaleFiler40.4054•••Recycled Content: Unknow Nanomaterials: VieSilica CuartzImpurities0.5%Impurities<	Material 2: Calcium C	arbonate					
Silica QuartzImpurities0-5%	Calcium Carbonate	Filler	40-60%				Recycled Content: Unknown Nanomaterials: Yes
Remaining substancesImpurities0-5%ImpuritiesImpurities0-5%ImpuritiesImpuritiesImpuritiesImpurities0-5%ImpuritiesI	Silica Quartz	Impurities	0-5%				Quartz can be harmful when it is inhaled and it is known to have carcinogenic potential for humans. However as the substance is embedded in the product, the hazards will not be present in the final product. Therefore, it is not expected to cause harm to the users. Recycled Content: No Nanomaterials: Yes
Material 3:TaleTaleFiller20-40%Image: Second S	Remaining substances	Impurities	0-5%			-	Remaining impurities are unknown, however, as there is no hazard declared, it is not expected to cause harm to the users. Recycled Content: Unknown Nanomaterials: Unknown
TaicFiller20-40%Image: Control of the second secon	Material 3: Talc						
Material 4: Water Solvent 20:-40% Control (Control (Contro) (Control (C	Talc	Filler	20-40%			-	The substance is embedded in the product, and it is classified as not classifiable as carcinogenic to humans. Therefore, it is not expected that the sub- stance will cause harm to the users. Recycled Content: No
WaterSolvent20-40%Image: Content: No Nanomaterials: No Nanomaterials: No Nanomaterials: No Nanomaterials: No Nanomaterials: No Nanomaterials: NoMaterial 5: SilicaNaturalValue<	Material 4: Water						Nanomateriais. Tes
Material 5: Silica University Matural pigment Image:	Water	Solvent	20-40%				Recycled Content: No Nanomaterials: No
Silica QuartzNatural Pigment10-20%Image: Construction of the second	Material 5: Silica						
Induction	Silica Quartz	Natural Pigment	10-20%	_		-	Quartz can be harmful when it is inhaled and it is known to have carcinogenic potential for humans. However as the substance is embedded in the product, the hazards will not be present in the final product. Therefore, it is not expected to cause harm to the users. Recycled Content: No
Remaining substancesImpurities0-5%ImpuritiesImpuritiesImpuritiesImpuritiesMaterial 6: Titanium DioxideTitanium DioxideTitanium DioxideMaterial 7: Hydroxyethylcel- luloseParkening agent0-10%ImpuritiesImpu							Nanomaterials: Yes
Material 6: Titanium DioxideTitanium DioxideTitanium DioxideItanium DioxideWhite Pigment and Opacifier0-10%Itanium DioxideMaterial 7: Hydroxyethylcel- luloseHydroxyethylcel- luloseThickening agent0-5%Itanium DioxideItanium Dioxide <td< td=""><td>Remaining substances</td><td>Impurities</td><td>0-5%</td><td>_</td><td>_</td><td>-</td><td>harm to the users.</td></td<>	Remaining substances	Impurities	0-5%	_	_	-	harm to the users.
Material 6: Titanium Dioxide Titanium Dioxide White Pigment and Opacifier 0-10% Image: Content image: Cont							Nanomaterials: Unknown
Titanium DioxideWhite Pigment and Opacifier0-10%Image: Content of the substance of the substanc	Material 6: Titanium I	Dioxide					
Material 7: Hydroxyethylcel- luloseThickening agent0-5%Image: Content is a content with skin, however as content with skin, however as content with skin, however as content is a content with skin, however is not easy to break down. Also, as there is only Level 3 hazard associated to the substance, it is not expected that the substance will cause harm to the users in the final product. Recycled Content: No Nanomaterials: Yes	Titanium Dioxide	White Pigment and Opacifier	0-10%	-	_	_	and it is classified as possibly carcinogenic to hu- mans. However as the substance is embedded in the product, the hazards will not be present in the final product. Therefore, it is not expected to cause harm to the users. Recycled Content: No
Hydroxyethylcel- lulose Thickening agent 0-5% Image: Content to the substance of th	Matorial 7: Hydroxyot	thylcolluloco					Nanomaterials: Yes
Hydroxyethylcel- lulose Thickening agent 0-5% - 5% - 5% - 5% - 5% - 5% - 5% - 5%	Material 7: Hydroxye	unyicellulose					The substance may be in contact with skin, however
Nanomaterials: Yes	Hydroxyethylcel- lulose	Thickening agent	0-5%	_		-	as Graphene in product is a good binder, the product is not easy to break down. Also, as there is only Level 3 hazard associated to the substance, it is not expected that the substance will cause harm to the users in the final product. Recycled Content: No
							Nanomaterials: Yes



Material 8: Alkoxylate	d diamines					
Tetrapotassium ethylenedi- aminetetraac- etate	Chelating agent	0-5%			-	The substance may be harmful when it is ingested and contacted with eye. However as the substance is embedded in the product, and the used amount is small, the hazards will not be present in the final product. Therefore, it is not expected to cause harm to the users. Recycled Content: No Nanomaterials: Unknown
Potassium methylsilanetri- olate	Reactant to make surfac- tant	0-5%	-	_	-	The substance may be harmful when it is contacted with eye and skin. However as the substance is embedded in the product, and the used amount is small, the hazards will not be present in the final product. Therefore, it is not expected to cause harm to the users. Recycled Content: No
Potassium Hydroxide	Reactant to make surfac- tant	0-5%	_	_	_	The substance may be harmful when it is ingested and contacted with skin. However as the substance is embedded in the product, and the used amount is small, the hazards will not be present in the final product. Therefore, it is not expected to cause harm to the users. Recycled Content: No Nanomaterials: Unknown
Remaining substances	Unknown	0-5%	_		-	Remaining substance is unknown, however as no hazard is declared, it is not expected to impose harm to users. Recycled Content: Unknown Nanomaterials: unknown
Material 9: Alkaline pl	nosphonate					
Sodium Hydroxide	Base	0-5%	—	_	-	The substance may be harmful when it is contacted with skin. However as the substance is embedded in the product, and the used amount is small, the hazards will not be present in the final product. Therefore, it is not expected to cause harm to the users. Recycled Content: No Nanomaterials: Unknown
Remaining substances	Unknown	0-5%		-	-	Remaining substance is unknown, however as no hazard is declared, it is not expected to impose harm to users. Recycled Content: Unknown Nanomaterials: unknown
Material 10: Stabilizers and specific dispersants						
1,1',1",1"'-eth- ylenedinitrilotet- rapropan-2-ol	Stablizer	0-5%			—	The substance is embedded in the product, also, as there is only Level 3 hazard associated to the substance, it is not expected that the substance will cause harm to the users. Recycled Content: No Nanomaterials: Yes
Remaining substances	Unknown	0-5%	_		_	Remaining substance is unknown, however as no hazard is declared, it is not expected to impose harm to users. Recycled Content: Unknown Nanomaterials: unknown
Material 11: Graphene	e Fiber- Powder					
Graphene Fiber	Structural Additive	0-5%				Recycled Content: No Nanomaterials: Yes



Material 12: Pigment	S				
Pigments and remaining sub- stances	Pigments	0-5%	-	_	The pigments are unknown, however as no hazard is declared, it is not expected to impose harm to users. Recycled Content: No Nanomaterials: Yes

Comments:

VOC emission for Exterior Paint: eco-INSTITUT DIN ISO 16000-6 TVOC emission 14 days 0.010 mg/m³ VOC content for Interior Paint: VOC <1 g/l tested against SCAQMD 304-91

This PhD applies to the products in the Mineral Paints & Primers product range including: Ecosphere Premium; Biosphere Premium; GCS Interior Premium; GCS Exterior Premium; Filler F10 Premium; Filler F20 Premium; Stuki Premium; Ambient Pro+ Premium; Füllmasse Premium and Kratzputz Premium.