GLOBAL GREEN TAG INTERNATIONAL PTY LTD

PHD™
Product Health Declaration

GLOBAL GREENTAG HEALTH RATE
Platinum HEALTH
CERT TM
trust brands™

PIRMAX
ISO2 Panel

PIRMAX ISO2 Panels are modified Polyisocyanurate (PIR) rigid thermal panels. These panels consist of a light weight closed cell PIR consisting of a foam inner core, thermoset between two layers of embossed aluminium foil facings.

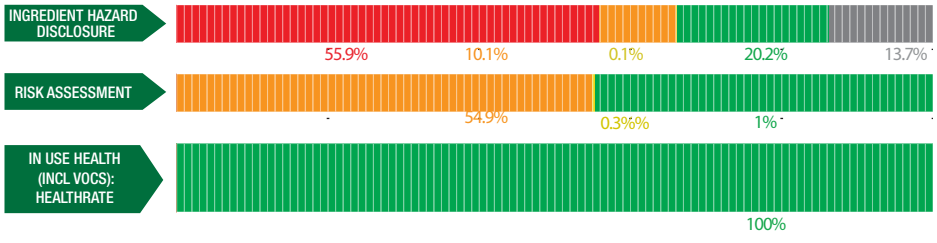
Products/Ranges:	PIRMAX ISO2 PIR Panel,Material Inputs,
Product Stages Assessed:	Manufacturing, In-use
Product Type:	Insulation Panels
CSI Masterformat:	07 21 13.13 - Foam Board Insulation
Licenced Site/s:	Braeside, Australia
Licence Number:	PIR:PA01:2022:PH
Licence Date:	15th November 2022
Valid To:	15th November 2023
Standard:	GGT International v4.0
Screening Date:	07th October 2022
PHD URL:	www.globalgreentag.com/getfile/13126/phd.pdf

PHD Summary	Inventory Threshold:	Inventory Method:
Percentage Assessed: 100%	100ppm Product Level	Nested Materials

- GreenTag Banned List Compliant.
- GreenTag PHD recognized by WELL™ & LEED ® Material Transparency & Optimization credits included below:
- Meets Green Star ® 'Buildings v1.0' ~ Credit 9: Responsible Finishes.
- Meets IWBI ® WELL™ v1.0 as Recognized for ~ Feature 26 (Part 1); Feature 97 (Part 1); as a Compliant Technical Document (Audited) for ~ Feature 04 (Part 4, 5), and, meets IWBI ® WELL™ v2.0 as Recognized for ~ X07 (Parts 1, 3); X08 (Part 2); as a Compliant Technical Document (Audited) for ~ X01 (Part 1, 2, 3); X05 (Part 1, 2); X06 (Part 1, 2); X07 (Part 2); X08 (Part 1).
- Meets USGBC LEED ® v4.0 and v4.1 Rating Tool Credit, MR Credit: Building Product Disclosure and Optimisation - Material Ingredients - Option 1: Material Ingredient Reporting, Option 2: International ACP - REACH Optimisation.
- Highly unlikely worker, user, and environmental exposure to Carcinogens, Mutagens, Reproductive Toxicant or Endocrine Disruptors.

INGREDIENT HAZARD DISCLOSURE, RISK ASSESSMENT, & IN USE HEALTH, % by mass.
See over for explanation.

ASSESSMENT:



Declared by:
Global GreenTag International Pty Ltd

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

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 final product 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 Personal Products Standard v1.0/1.1, and Cleaning Products Standard v1.1/1.2 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 & v4.1, WELL v1 & v2, Living Building Challenge, Estidama etc., the following information is declared from audit:

Colour	Ingredient Name
Green	**Ideal- Low** No concerns- ingredient safe at any level based on current known science, % of the ingredient, and relevance to use context'
Yellow	**Medium to Low** Hazardous Ingredient with minor level of "Issue of Concern" depending on % of the ingredient, hazard level, and relevance to use context'
Orange	**Moderate** Hazardous ingredient with "Issue of Concern" or "Issue of Concern Minimised" depending on % of the ingredient, hazard level, and relevance to use context'
Red	**Problematic (Red): Target for Phase** Hazardous ingredient with 'Red Light" or "Red Light Minimised" concern depending on % of the ingredient, hazard level, and relevance to use context'
Dark Red	**Very Problematic (Dark Red): Target for Phase** Very Hazardous ingredient with 'Red Light Exclusion" concern depending on % of the ingredient, hazard level, and relevance to use context'
Grey	**Uncategorised** Not able to be categorised due to lack of toxicity impact information.
Black	**Banned Ingredients** Petroleum, Parabens plus a wide range of compounds stipulated by cleaning/personal products standards.

Ingredient Name	CAS Number OR Function	Proportion in finished product	GHS, IARC & Endocrine Category	REACH Compliance	Ingredient Assessment	Whole Of Life Assessment	In Use Health Assessment	Comment
MDI-based prepolymers								
Diphenylmethane Diisocyanate, Polymeric	9016-87-9	30-40%	H315 (Skin Irrit. 2) H319 (Eye Irrit. 2) H330 (Acute Tox. 2) H334 (Resp. Sens.1) H335 (STOT SE 3) H373 (STOT RE 2)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. Any final risks relate only to the small potential of on-site dust production during construction if sawing rather than blade cutting is used. Follow manufacturer's PPE recommendations. During fires, this substance produces toxic fumes however, compliance with the National Construction Code will mitigate this potential. Recycled Content: No Nanomaterials: Unknown
4,4' Methylene Diphenyl Diisocyante	Preservative	10-20%	H315 (Skin Irrit. 2) H319 (Eye Irrit. 2) H317 (Skin Sens. 2) H332 (Acute Tox. 4) H334 (Resp. Sens.1) H335 (STOT SE 3) H351 (Carc. 1) H373 (STOT RE 2)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. Any final risks relate only to the small potential of on-site dust production during construction if sawing rather than blade cutting is used. Follow manufacturer's PPE recommendations. During fires, this substance produces toxic fumes however, compliance with the National Construction Code will mitigate this potential. Recycled Content: No Nanomaterials: Unknown
2,4' Methylene Diphenyl Diisocyante	5873-54-1	1-5%	315 (Skin Irrit. 2) H319 (Eye Irrit. 2) H317 (Skin Sens. 2) H332 (Acute Tox. 4) H334 (Resp. Sens.1) H335 (STOT SE 3) H351 (Carc. 1) H373 (STOT RE 2)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. Any final risks relate only to the small potential of on-site dust production during construction if sawing rather than blade cutting is used. Follow manufacturer's PPE recommendations. During fires, this substance produces toxic fumes however, compliance with the National Construction Code will mitigate this potential. Recycled Content: No Nanomaterials: Unknown
Polyol blend								
Proprietary	Copolymer	50-70%	None	OK				There is no identifiable risk to the manufacturer or end user. Recycled Content: No Nanomaterials: Unknown
Proprietary	Copolymer	1-10%	H317 (Skin Irr. 1) H411 Aquatic Tox. 1) H412 (Aquatic Chronic 1)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product which minimises risks to users. This product is intended for indoor use which minimises risk to aquatic environments. Recycled Content: >50% Post-C and Post-I Nanomaterials: Unknown

Ingredient Name	CAS Number OR Function	Proportion in finished product	GHS, IARC & Endocrine Category	REACH Compliance	Ingredient Assessment	Whole Of Life Assessment	In Use Health Assessment	Comment
Proprietary	Copolymer	0.01-1%	H302 (Acute Tox. 4)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance is reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product which minimises risks to users. This substance is a small proportion of the final product further reducing any risks. Recycled Content No Nanomaterials: Unknown
Proprietary	Copolymer	1-5%	H410 (Aq Chronic 1) H361f (Repr. 2)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. Any final risks relate only to the small potential of on-site dust production during construction if sawing rather than blade cutting is used. Follow manufacturer's PPE recommendations. This product is intended for indoor use which minimises risk to aquatic environments. Recycled Content: No Nanomaterials: Unknown
Proprietary	Catalyst	0-1%	H335 (STOT RE 3)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. This substance is a small proportion of the final product further reducing any risks. Recycled Content: Unknown Nanomaterials: unknown
Polyol blend								
Proprietary	Copolymer	0-5%	H302 (Acute Tox.4)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product which mitigates anyrisks to uses. Recycled Content No Nanomaterials: Unknown
Proprietary	Copolymer	0.01-1%	H302 (Acute Tox. 4) H312 (Acute Tox. 3) H318 (Skin Corr. 1B) H331 (Acute Tox. 3) H412 (Aquatic Chronic 1)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. This product is intended for indoor use which minimises risk to aquatic environments. Recycled Content No Nanomaterials: Unknown
Proprietary	Copolymer	0.1-1%	H317 (Skin Irr. 1) H411 Aquatic Tox. 1) H412 (Aquatic Chronic 1)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. This product intended for indoor use. This product is intended for indoor use which minimises risk to aquatic environments. Recycled Content: >50% Post-C and Post-I Nanomaterials: Unknown

Ingredient Name	CAS Number OR Function	Proportion in finished product	GHS, IARC & Endocrine Category	REACH Compliance	Ingredient Assessment	Whole Of Life Assessment	In Use Health Assessment	Comment
Proprietary	Copolymer	0.01-1%	H410 (Aq Chronic 1) H361f (Repr. 2)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. This substance is a small proportion of the final product further reducing any risks. Recycled Content No Recycled Content No Nanomaterials: Unknown
Polyol blend								
Proprietary	Copolymer	0-5%	H302 (Acute Tox.4)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. This product intended for indoor use. This product is intended for indoor use which minimises risk to aquatic environments. Recycled Content No Nanomaterials: Unknown
Proprietary	Copolymer	0.1-5%	H317 (Skin Irr. 1) H411 Aquatic Tox. 1) H412 (Aquatic Chronic 1)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product mitigates any risks to uses. This product is intended for indoor use which minimises risk to aquatic environments. Recycled Content: >50% Post-C and Post-I Nanomaterials: Unknown
Proprietary	Copolymer	0.1-1%	H315 (Skin Irrit. 2) H318 (Eye Dam. 1) H361 (Repr. 2)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. This substance is a small proportion of the final product further reducing any risks. Recycled Content No Nanomaterials: Unknown
Proprietary	Catalyst	0.1-1%	H302 (Acute Tox. 4) H312 (Acute Tox. 3) H314 (Skin Corr. 1B)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. This substance is a small proportion of the final product further reducing any risks. Recycled Content No Nanomaterials: Unknown
Propellant								
Cyclopentane	287-92-3	1-5%	H225 (Flam. Liq. 2) H412 (Aquatic Chronic 3)	OK				Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance reacts with other ingredients to form a benign polymer that is bonded to an impermeable foil facing in the final product. This substance is a small proportion of the final product further reducing any risks. Aquatic environments are unlikely to be exposed to this product intended for indoor use. Recycled Content No Nanomaterials: No
Additives								

Ingredient Name	CAS Number OR Function	Proportion in finished product	GHS, IARC & Endocrine Category	REACH Compliance	Ingredient Assessment	Whole Of Life Assessment	In Use Health Assessment	Comment
Proprietary	Additives	10-20%	None Declared	OK				The manufacturer has declared there are no hazards attached to the this undisclosed substance. Worker exposure to this raw substance is limited through the use of a closed production system, industrial exhausts and PPE as per PIRMAX's OHS Policy. This substance is combined into a foam which is bonded to an impermeable foil which further minimises risks to users. Recycled Content No Nanomaterials: No
Foil								
Aluminium	7429-90-5	10-30%	None	OK				There is no identifiable risk to the manufacturer or end user. Recycled Content No Nanomaterials: Unknown
Silicone (Si)	7440-21-3	0.1-1%	None	OK				There is no identifiable risk to the manufacturer or end user. Recycled Content No Nanomaterials: Unknown
Iron (Fe)	7439-89-6	0.1-5%	None	OK				There is no identifiable risk to the manufacturer or end user. Recycled Content No Nanomaterials: Unknown
Copper (Cu)	7440-50-8	0.1-5%	H411 (Aquatic Chronic 2)	OK				This substance is present at a low level in a alluminium alloy foil and does not pose a risk at this low level. This product is intended for indoor use which further minimises any risks to aquatic environments. Recycled Content No Nanomaterials: Unknown
Manganese (Mn)	7439-96-5	<0.1%	None	OK				There is no identifiable risk to the manufacturer or end user. Recycled Content No Nanomaterials: Unknown
Magnesium (Mg)	7439-95-4	0.1-5%	None	OK				There is no identifiable risk to the manufacturer or end user. Recycled Content No Nanomaterials: Unknown
Zinc (Zn)	7440-66-6	<0.1%	None	OK				There is no identifiable risk to the manufacturer or end user. Recycled Content No Nanomaterials: Unknown
Titanium (Ti)	7440-32-6	<0.1%	None	OK				There is no identifiable risk to the manufacturer or end user. Recycled Content No Nanomaterials: Unknown

Post-C = Post Consumer
Post-I = Post Industrial

Comments:

VOC Content: Total VOC (TVOC) emissions testing was conducted 14 January 2022 by CETEC using the Emission testing method for California Specification CA 01350. TVOC emissions were found to be less then or equal to 0.093 mg/m3 which is below the 0.500mg/m3 limit imposed by California Specification CA 01350

Formaldehyde: Formaldehyde emissions testing was conducted on 14 January by CETEC using the Emission testing method for California Specification CA 01350. Formaldehyde emissions were found to be less then or equal to 6 ug/m3 which is below the 9 ug/m3 limit imposed by California Specification CA 01350.