



**ECOBIX® Disposable Food Bowls**

This Environmental Product Declaration (EPD) discloses potential environmental outcomes compliant with ISO 14025 for business to business communication.

The declared ECOBOX® disposable food bowls LP: 32 and 75 products were made by Logomas in Malaysia for the hospitality sector catering applications.

Logomas Packaging manufactures plastic packaging for a wide range of applications.

The company's Corporate Social Responsibility (CSR) policy is to act responsibly towards the environment.

The company recognizes the importance of protecting the natural environment.

Logomas Packaging follows best practices in waste management and disposal.

In addition to their legal obligations, Logomas Packaging is pro-active in environmental preservation actions.

Logomas Packaging has implemented an Extended Producer Responsibility (EPR) Campaign.

It promotes recycling by offering to buy back post-consumer polystyrene foam at higher than current market price.

The company also strives to be a responsible business with the highest standards of ethics and professionalism.

Their Social Responsibility commitments are focused on legal compliance, business ethics, environmental preservation as well as protecting people and human rights.

Logomas Packaging is an ISO14001 certified company.

<http://www.logomas.com/corporate-social-responsibility.html>



*Figure 1 ECOBOX® disposable food LP: 32 and 75 bowls*



**ECOBIX<sup>®</sup> Disposable Food Bowl**

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Different program EPDs may not be comparable as e.g. Australian transport is more than elsewhere. **Further explanatory information is found at <http://www.globalgreentag.com/>** or contact: [certification1@globalgreentag.com](mailto:certification1@globalgreentag.com) © This EPD remains the property of Global GreenTag Pty Ltd.

**ECOBIX® Disposable Food Bowl****1. Details of This Declaration**

<b>Program Operator</b>	GreenTag Global Pty Ltd hereafter called Global GreenTag noted at <a href="http://www.globalgreentag.com">www.globalgreentag.com</a>
<b>EPD Number</b>	LOG-002-2018
<b>Date issue</b>	25 <sup>th</sup> June 2018
<b>Validity</b>	25 <sup>th</sup> June 2021
<b>Reference PCR</b>	Compliant with PCR DFC: 2017 Disposable Food Containers
<b>Time</b>	Made in and sold from 2015 for single use.
<b>Geography</b>	Made in Malaysia. Uses are assumed as for Malaysia.
<b>Application</b>	Commercial hospitality sector.
<b>Declared Units</b>	ECOBIX® disposable food bowls 2.0g LP32 and 3.0g LP75.
<b>Functional unit</b>	Single use open bowl containers for 50 meals 800 gram each cradle to grave.

**2. Product Characterisation**

<b>Definition</b>	Logomas made ECOBOX® disposable food bowls LP: 32 and 75.  Degradable [ASTM 5208-01, ASTM D882-12 and ASTM G21-09]  Safe for food contact [American Food and Drug Administration (FDA) standard 21CFR177.1640] [European Commission Regulation (EU) No 10/2011] Absence of Heavy Metals [EPA 3050B/EPA6010C:2007]
<b>Standards</b>	Water and Moisture Resistance [ISO 5364:1986]  Grease Resistance [ISO 5364:1986]  Compression Resistance [ASTM D4577:2005 (2010)]



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**3. Sustainability Assessment Scores**

Table 1 lists Global GreenTag Sustainability Assessment Criteria (SAC) scores prior to weighting and then used to determine the GreenTag EcoPOINT<sup>1</sup>.

**Table 1 Normalised GreenTag EcoPOINT & SAC Scores**

Category Potential	Results (-1 to +1)
Building Synergy	1.00
Health & Ecotoxicity	0.75
Biodiversity	1.00
LCA Score	0.07
Greenhouse Gas Emissions CO <sub>2eq</sub> <sup>2</sup>	0.24
Social Responsibility	0.15
<b>GreenTag EcoPOINT</b>	<b>0.53</b>

SAC scores are normalised against business as usual (BAU) product performing comparable functions under the same category rules. Lower scores show better environmental and social benefits with fewer impacts and damages. Considering sustainability:

- worst case BAU results = 1.0,
- neutral = 0.0 and
- net positive benefit = -1.0

**4. Type 1 Ecolabel**

The declared product Type 1 Ecolabel achieved

Global GreenTag<sup>Cert™</sup> Silver Streamlined



**5. Verification of this Declaration**

This EPD was approved on 9 05 2018 according to requirements of ISO14025 8.1.3b.

Role	Name	Position	Signature
<b>PCR Review Chair</b>	Murray Jones	Ecquate Pty Ltd CEO	<i>Murray Jones</i> 25/05/2018
<b>LCI Developer</b>	Delwyn Jones	The Evah Institute CEO	<i>Delwyn Jones</i> 25/05/2018
<b>LCARate, LCIA &amp; EPD Developer</b>	Omar Biaz	Global GreenTag Assessor	<i>O Biaz</i> 26/06/2018
<b>3<sup>rd</sup> Party LCI Verifier</b>	Shloka Ashar	Global GreenTag Lead Auditor LCI Verifier	<i>Shloka Ashar</i> 02/07/2018
<b>Internal EPD Audit</b>	David Baggs	Global GreenTag CEO & Program Director	<i>David Baggs</i> 29/07/18

<sup>1</sup> <http://www.ecospecifier.com.au/knowledge-green/glossary.aspx#greentagecopoint>

<sup>2</sup> Stocker et al (eds.) Climate Change 2013: The Physical Science Basis, CH8, IPCC AR5, Cambridge U Press, UK.



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**6. Packaging, Installation, Use & Disposal**

<b>Packaging</b>	Cardboard forms & cartons, plastic wrap & strapping on reused pallets.
<b>Service life</b>	Disposable single use is assumed typical.
<b>Health Safety &amp; Environment</b>	Apart from compliance to occupational and workplace health safety and environmental laws no additional personal protection is considered essential.
<b>Residual Scrap</b>	Mill off-cuts are reused. Mill scrap goes to landfill.
<b>Cleaning &amp; Maintenance</b>	No cleaning and maintenance is required.
<b>Scenario</b>	Single use of disposable food containers.
<b>Recycling</b>	None modelled.
<b>Re-use</b>	Single use disposable takeaway containers. No re-use was modelled.
<b>Disposal</b>	Assumed 100% landfill. Product degradation in landfill with effluent to ground water and emissions to air was modelled. Because of laws requiring food outlets and parks cover litter bins and the lack of quality data the LCA excluded potential littering and windblown detritus.

**7. Whole of life Performance**

<b>Health Protection</b>	The product does not contain levels of carcinogenic, toxic or hazardous substances that warrant ecological or human health concern cradle to grave. It passed the Ecospecifier Cautionary Assessment Process (ESCAP) and no red light concerns existed for product human or ecological toxicity. Due to lack of quantitative data on littering, microplastics and unknown marine impacts after products degrade the LCA did not model these environmental concerns.
<b>Effluent</b>	The LCA and ESCAP raised no red light concerns in emissions to water <sup>3</sup> . One remaining issue of concern largely outside this LCA scope is unknown impacts of visibly accumulating plastic litter as well as degraded microplastics in oceans.
<b>Waste</b>	Cradle to grave waste to landfill was 1% hazardous and 99% non-hazardous.
<b>Environmental Protection</b>	Continuous improvement under the maker's certified ISO14001 EMS aims to avoid toxics, waste and pollution plus reduce their material and energy use.
<b>Environmental Health Effects</b>	No other potential in-use impacts on environment or health are known.

**8. Base Material Origin and Detail**

Table 2 lists key components by function, type, source and amount.

**Table 2 Base Material**

Function	Component	Origin	% mass
<b>Polymer</b>	Polystyrene	Singapore	>90.0 <95
<b>Prodegradant</b>	Proprietary	Indonesia	>5.0 <10
<b>Blowing agent</b>	Propane butane mix	Malaysia	>1.0 <5.0
<b>Void control</b>	800 mesh Talc	Malaysia	>0.5 <1.0
<b>Lubricant</b>	Calcium Stearate	Malaysia	>0.1 <0.5

<sup>3</sup> According with national standards in ANZECC Guideline For Fresh & Marine Water Quality (2000)



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**9. Life Cycle Inventory Results**

Table 3 lists resource use per functional unit (bowls for fifty 800g meals), with transport as defined in Figure 2, across phases:

- cradle to gate including supply, manufacture and upstream;
- delivery to site and unpacking;
- Single use and operation including packaging fate-and
- end-of-life disposal in landfill and emissions to air and groundwater.

**Table 3 Inventory of Flows/ Functional Unit**

Total Input use of	Unit	LP32	LP75
Product Mass	kg	0.200	0.150
Embodied Water	kl	39.74	29.81
Fuel + Feedstock	MJ	7.40	5.55
Renewable Primary Energy	MJ	0.67	0.51

**10. Life Cycle Impact Results**

Table 4 shows Life Cycle Impact Assessment (LCIA) results per functional unit.

**Table 4 Potential Impact Results**

Evaluation Category	Unit	LP32	LP75
EcoIndicator 99	ecopoint	0.07	0.05
Carbon Dioxide Equivalent Emissions <sup>4</sup>	kg CO <sub>2e</sub>	1.12	0.84
Ecosystem Quality Damages	PDF*m <sup>2</sup> *yr	5.4E-06	4.0E-06
Human Health Damages	DALY	5.8E-05	4.4E-05
Ozone Depletion	kg R11 <sub>e</sub>	3.1E-10	2.3E-10
Acidification	kg SO <sub>2e</sub>	0.02	0.02
Eutrophication	kg PO <sub>4</sub> <sup>3-</sup> <sub>e</sub>	3.7E-4	2.8E-4
Fossil Fuel Depletion	MJ <sub>surplus</sub>	1.55	1.16
Mineral Resource	MJ <sub>surplus</sub>	3.4E-04	2.6E-04



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**11. Supply Chain Modelling**

Processes to acquire, refine, transport, fabricate, coat, use, clean, repair, reuse and dispose of metal, masonry, ceramic, timber, glass, plastic and composites are modelled. These include those of:

- Mining, extracting and refining resources to make commodities and packaging;
- Acquiring, cultivating, harvesting, extracting, refining produce and biomass;
- Fuel production to supply power and process energy and freight;
- Chemicals use in processing resources, intermediates and ancillaries;
- Process energy, fuel and freight of resources, intermediates and ancillaries;
- Use, cleaning, recoating, repair, recycling, re-use and landfill, as well as
- Infrastructure process energy transformed and material wear loss e.g. tyres.

A flow chart in Figure 2 shows key product operations from gate to gate. While all known operations are included not all are shown.

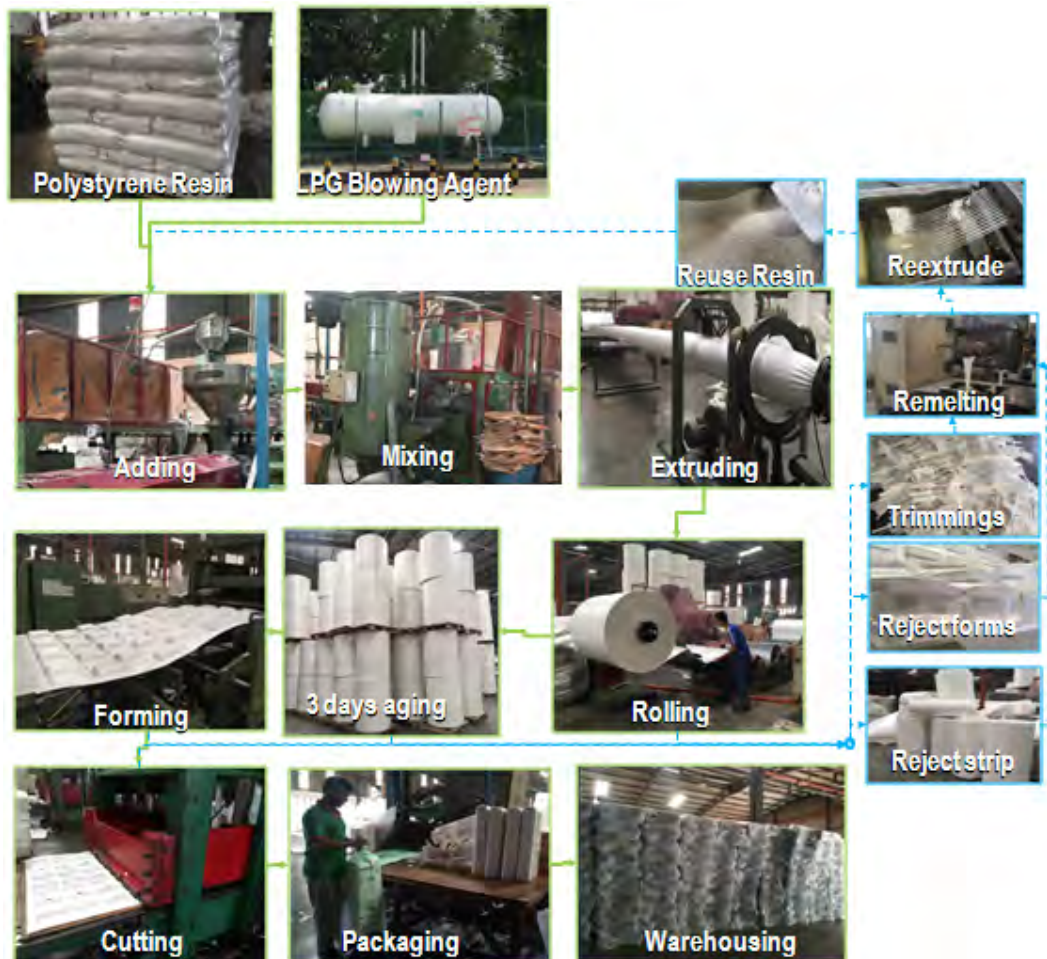


Figure 2 Major Product Operations



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12. Life Cycle Assessment Method

**LCA Author** The Evah Institute as described at [www.evah.com.au](http://www.evah.com.au)

**Study Period** Factory data was collected from 2015 to 2018

**LCA Method** Compliant with ISO 14040 and ISO 14044 Standards

**LCIA method** EcoIndicator 99 Life Cycle Impact (LCIA) Assessment

**Scope** Cradle to Fate including all supply chain phases and stages depicted in Figure 2.

**Phases** The LCA covered all known flows in all known stages cradle to end of life fate.

**Assumptions** Use is to typical Australian Facility Management professional practice.

**Scenarios** Use, cleaning, maintenance plus disposal and re-use were scenario-based using Facility Management Association denoted and published typical operations.

**System Boundaries** The LCA covers all operations in the system boundary depicted in Figure 3.

**Processes** All known processes are included from resource acquisition, water, fuel & energy use, power generation & distribution, freight, refining, intermediates, manufacture, scrap re-use, packing and dispatch, installation, use, maintenance and landfill. All significant waste and emission flows from all supply chain operations involved to make, pack and install the product are included.

Life Cycle Stages

Modules

Unit Operations

Modeling

Cradle to Gate

Cradle to Gate +options

Cradle to Grave

Product	Construct-ion		Use stage related to the building Operation							End of Life				Beyond system Boundary																			
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D																
Raw material supply						Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy use	Operational water use	Demolition	Transport	Waste Processing	Disposal	Potential Reuse Recovery and Recycling load & benefit																
Transport																																	
Manufacture																																	
Transport																																	
Construction																																	
Use																																	
Maintenance																																	
Repair																																	
Replacement																																	
Refurbishment																																	
Operational Energy use																																	
Operational water use																																	
Demolition																																	
Transport																																	
Waste Processing																																	
Disposal																																	
Actual																	Scenarios																
M	M	M																															
M	M	M	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O																
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	O																
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	O																

Figure 3 Phases and Stages Cradle to Grave

Evah industry databases cover all known domestic and global scope 1 and 2 operations. They exclude scope 3 burdens from capital facilities, equipment churn, noise and dehydration as well as incidental activities and employee commuting. The databases exist in top zones of commercial global modelling and calculating engines. Quality control methods are applied to ensure:

- Coverage of place in time with all information<sup>5</sup> for each dataset noted, checked and updated;
- Consistency to Evah guidelines<sup>6</sup> for all process technology, transport and energy demand;
- Completeness of modeling based on in-house reports, literature and industry reviews;
- Plausibility in 2 way checks of LCI input and output flows of data checked for validity, plus
- Mathematical correctness of all calculations in mass and energy balance cross checks.

Electricity supply models in active databases are updated annually. As each project is modelled and new data is available the databases are updated and audited by external Type 1 ecolabel certifiers.

<sup>5</sup> Jones D G (2004) LCI Database for Commercial Building Report 2001-006-B-15 Icon.net, Australia  
<sup>6</sup> Evah Tools, Databases and Methodology Queensland, Australia at <http://www.evah.com.au/tools.html>





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**13. Data Sources Representativeness and Quality**

Primary data used for modelling the state of art of each operation includes all known process for:

- Technology sequences;
- Energy and water use;
- Landfill and effluent plus
- Reliance on raw and recycled material;
- High and reduced process emissions;
- Freight and distribution systems.

Primary data is sourced from clients, Annual Reports and their publications on corporate locations, logistics, technology use, market share, management systems, standards and commitment to improved environmental performance. Information on operations is also sourced from client:

- Supply chain mills, their technical manuals, corporate annual reports and sector experts, and
- Manufacturing specifications websites and factory site development license applications.

Background data is sourced from the International Energy Agency, IBISWorld, USGS Minerals, Franklin Associates, Boustead 6, Plastics Europe, CML2, Simapro 8, Ecolnvent 3 and NREL USLCI model databases. Information on operations is also sourced from:

- Library, document, NPI and web searches, review papers, building manuals and
- Global Industry Association and Government reports on Best Available Technology (BAT).

For benchmarking, comparison and integrity checks inventory data is developed to represent BAT, business as usual and worst practice options with operations covering industry sector supply and infrastructure in Australia and overseas.

Such technology, performance and license conditions were modelled and evaluated across mining, farming, forestry, freight, infrastructure and manufacturing and building industry sectors since 1995.

As most sources do not provide estimates of accuracy, a pedigree matrix of uncertainty estimates to 95% confidence levels of Geometric Standard Deviation<sup>2</sup> ( $\sigma_g$ ) is used to define quality as in Table 6<sup>7</sup>.

**Table 6 Data Quality Uncertainty (U) for 2018**

Metric $\sigma_g$	U $\pm 0.01$	U $\pm 0.05$	U $\pm 0.10$	U $\pm 0.20$	U $\pm 0.30$
Temporal	Post 2015	Post 2010	Post 2005	Post 2000	Pre 2000
Duration	>3yr	3yr	2yr	1yr	<1yr
Data Source	Process	Line	Plant	Corporate	Sector
Technology	Actual	Comparable	Within Class	Conventional	Within Sector
Reliability on	Site Audit	Expert verify	Region Report	Sector Report	Academic
Precision to	Process	Line	Plant	Company	Industry
Geography	Process	Line	Plant	Nation	Continent
True of the	Process	Mill	Company	Group	Industry
Sites cover of	>50%	>25%	>10%	>5%	<5%
Sample size	>66% trend	>25% trend	>10% batch	>5% batch	Academic
Cut-off mass	0.01%	0.05%	0.1%	0.5%	1%
Consistent to	$\pm 0.01$	$< \pm 0.05$	$< \pm 0.10$	$< \pm 0.20$	$< \pm 0.30$
Reproducible	>98% confidence	>95%	>90%	>80%	<70%
Certainty	Very High	High	Typical	Poor	$> \pm 0.30$ unused

No data set with  $> \pm 30\%$  uncertainty is used without notation in the LCA as well as the EPD.

<sup>7</sup> Evah Institute data quality control system accords with UNEP SETAC Global LCI Database Quality 2010 Guidelines



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**14. Supply Chain Modelling Assumptions**

Australian building sector rules and Evah assumptions applied are defined in Table 7.

**Table 7 Scope Boundaries Assumptions and Metadata**

<b>Quality/Domain</b>	<b>National including Import and Export</b>
Process Model	Typical industry practice with currently most common or best (BAT) technology
Resource flows	Regional data for resource mapping, fuels, energy, electricity and logistics
Temporal	Project data was collated from 2015 to 2017
Geography	Designated client, site, regional, national, Pacific Rim then European jurisdiction
Representation	Designated client, their suppliers and energy supply chains back to the cradle
Consistency	Model all operations by known given operations with closest proximity
Technology	Pacific Rim Industry Supply Chain Technology typical of 2015 to 2018
Functional Unit	Typical product usage with cleaning & disposal/m <sup>2</sup> over the set year service life
<b>System Control</b>	
Primary Sources	Clients and suppliers mills, publications, websites, specifications & manuals
Other Sources	IEA 2018, GGT 2018, Boustead 2013, Simapro 2016, IBIS 2018, Ecolnvent 2018
Data mix	Power grid and renewable shares updated to latest IEA 2018 reports
Operational	Company data for process performance, product share, waste and emissions
Logistics	Local data is used for power, fuel mix, water supply, logistics share & capacity
New Data Entry	VliegLCA, Evah Institute 2018; Global Green Tag Researchers 2018
Data Generator	Manufacturers, Evah Institute 2018; GGT 2018; Meta: IBIS 2018, Other pre 2018
Data Publisher	The Evah Institute Pty Ltd to Global GreenTag and designated client only
Persons input	All contributors cited in Evah & Global GreenTag records or websites
<b>Data Flow &amp; Mix</b>	
System Boundary	Earth's cradle of all resource & emission flows to end of use, fitout or build life
System flows	All known from and to air, land, water and community sources & sinks
Capital inclusions	Natural stocks $\Delta$ , industry stockpiles $\Delta$ , capital wear $\Delta$ , system losses and use
Arid Practice	Dry technology adopted, Water use is factored by 0.1 as for e.g. Mining
Transportation	Distance >20% than EU; >20% fuel efficient larger vehicles, load & distance
Industrial	Company or industry sector data for manufacturing and minerals involved
Mining	All raw material extraction is based on Australian or Pacific Rim technology
Imported fuel	Mix is from nearest sources is e.g. UAE, SE Asia, Canada or New Zealand
Finishes	Processing inputs with finishing burdens are factored in. If not that is denoted
<b>Validation</b>	
Accuracy	10 <sup>th</sup> generation study is $\pm$ 5 to 15% uncertain due to some background data
Completeness	All significant operations are tracked and documented from the cradle to grave
Precision	Tracking of >90% flows applies a 90:10 rule sequentially to 99.9% and beyond
Allocation	%100 to co products on reaction stoichiometry by energetic or mass fraction
Burdens	All resource use from & emissions to community air land, water are included
Plausibility	Results are checked and benchmarked against BAT, BAU & worst practice
Sensitivity	Calculated U is reported & compared to libraries of Bath U RICE & Ecolnvent 3.2
Validity Checks	Are made versus Plastics Europe, Ecobilan, GaBi & or Industry LCA Literature



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### 15. References for this LCA & EPD

- Australian & New Zealand (ANZECC) Guidelines For Fresh & Marine Water Quality (2000) <http://www.environment.gov.au/water/quality/national-water-quality-management-strategy>
- Basel Convention (2011) Control of Transboundary Movement of Hazardous Waste & Disposal <http://www.basel.int/portals/4/basel%20convention/docs/text/baselconventiontext-e.pdf>
- Boustead (2014) Model 6 LCI database <http://www.boustead-consulting.co.uk/publicat.htm> USA & UK
- EcolInvent (2016) LCI Model 3 database <http://www.ecoinvent.ch/> EcolInvent, Switzerland
- Evah (2016) LCA Tools, Databases & Methodology at <http://www.evah.com.au/tools.html>
- Franklin Associates (2016) US LCI Database <http://www.fal.com/index.html> Eastern Research Group US
- GreenTag<sup>™</sup> Certification (2016) [http://www2.ecospecifier.org/services\\_offered/greentag\\_certification](http://www2.ecospecifier.org/services_offered/greentag_certification)
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- IBISWorld (2014) Market Research, <http://www.ibisworld.com.au/> IBISWorld Australia
- International Energy Agency (2016) Energy Statistics <http://www.iea.org/countries/membercountries/>
- ISO 9001:2008 Quality Management Systems Requirements
- ISO 14001:2004 Environmental management systems: Requirements with guidance for use
- ISO 14004:2004 EMS: General guidelines on principles, systems & support techniques
- ISO 14015:2001 EMS: Environmental assessment of sites & organizations (EASO)
- ISO 14020:2000 Environmental labels & declarations — General principles
- ISO 14024:2009 Environmental labels & declarations -- Type I Principles & procedures
- ISO 14025:2006 Environmental labelling & declarations Type III EPDs Principles & procedures
- ISO 14031:1999 EM: Environmental performance evaluation: Guidelines
- ISO 14040:2006 EM: Life cycle assessment (LCA): Principles & framework
- ISO 14044:2006 EM: LCA: Requirement & guideline for data review: LCI; LCIA, Interpretation results
- ISO 14064:2006 EM: Greenhouse Gases: Organisation & Project reporting, Validation & verification
- ISO 15392:2008 Sustainability in building construction General principles
- ISO 15686-1:2011 Buildings & constructed assets Service life planning Part 1: General principles
- ISO 15686-2:2012 Buildings & constructed assets Service life (SL) planning Part 2: prediction
- ISO 15686-8:2008 Buildings & constructed assets SL planning Part 8: Reference & estimation
- ISO 21929-1:2011 Sustainability in building construction Sustainability indicators Part 1: Framework
- ISO 21930:2007 Building construction: Sustainability, Environmental declaration of building products
- ISO/TS 21931-1:2010 Sustainability in building construction: Framework for assessment, Part 1:
- ISO 21932:2013 Sustainability in buildings and civil engineering works -- A review of terminology
- Plastics Europe (2016) Portal <http://www.plasticseurope.org/plastics-sustainability/eco-profiles.aspx>
- Pre (2016) SimaPro 8 Software, The Netherlands <http://www.pre-sustainability.com/simapro-manuals>
- Myhre et al, 2013, Anthropogenic and Natural Radiative Forcing Chapter 8 in Stocker et al (eds.) Climate Change 2013, AR5 of the IPCC, Cambridge U Press UK. <http://www.ipcc.ch/report/ar5/wg1/>
- Roache S. K. (2012) IMF Report WP/12/115 China's Impact on World Commodity Markets <http://www.imf.org/external/pubs/ft/wp/2012/wp12115.pdf> International Monetary Fund
- UNEP (2016) Persistent Organic Pollutants <http://www.chem.unep.ch/pops/> The UN
- USLCI (2016) Life-Cycle Inventory Database <https://www.lcacommons.gov/nrel/search>, USA
- U.S. Geological Survey National Minerals (2016) <http://minerals.usgs.gov/minerals/pubs/country/> USA
- US EPA (2016) Database of Sources of Environmental Releases of Dioxin like Compounds in U.S <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=20797> p 1-38, 6-9, USA



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### 16. Reviewers Report Conclusions

The independent LCA reviewer's report confirmed that the LCA project report and addition information addressed the EPD. The verifier, Shloka Ashar, was not involved in developing the LCA and has no conflict of interests from their organisational position. While the report is confidential its conclusions confirmed that documentation according to set ISO Standard requirements was provided including evidence from the:

#### The Evah Institute, the LCA developer:

- a) Recipes of input and output data of unit processes used for LCA calculations ✓
- b) Datasheets of measures, calculations, estimates and emails with sources as in Table 6 ✓
- e) References to literature and databases from which data was extracted as noted in Table 6 ✓
- g) Notes on supply chain processes and scenarios satisfying requirements of this Standard ✓
- i) Embodied Energy shares as used for sensitivity analyses re ISO 14044:2006, 4.5.3.3 ✓
- j) Proof percentages or figures in calculations in the end of life scenario ✓
- k) Notes on proof of % and allocation calculations ✓
- o) All operations covered Vs criteria and substantiation used to determine system boundaries ✓

#### Product Manufacturer in:

- c) Specifications used to create the manufacturer's product ✓
- d) Citations, references, specifications or regulations & data showing completeness ✓
- f) Specification demonstrating that the building product can fulfil the intended use ✓

#### The Certifier Global GreenTag on:

- l) Notes and calculation of averages of different locations yielding generic data ✓
- m) Substantiating additional environmental information ISO 14025:2006, 7.2.4 ✓
- n) Procedures for data collection, questionnaires, instructions, confidentiality deeds ✓

#### Requiring No Evidence:

As the EPD is cradle to grave as well as PCR compliant the independent reviewer did not need to:

- h) Substantiate a few stages as all stages were substantiated ✓
- p) Substantiate alternatives when no other choices and assumptions were applied ✓
- q) Demonstrate consistency for few stages as the same rules in Tables 5 and 6 applied to all. ✓



**ECOBIX<sup>®</sup> Disposable Food Bowl**

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**Further and explanatory information is found at**

<http://www.globalgreentag.com/>

or contact:

[certification1@globalgreentag.com](mailto:certification1@globalgreentag.com)



**Global GreenTagCert™ EPD Program**

**Environmental Product Declaration**

**Compliant to ISO 14025**

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