

# Earth sure® Environmental Product Declarations General Program

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The Earthsure program is a Type III Environmental Product declaration program organized in conformance with ISO 14025:2006. It was initially developed in 2000, and was applicable only to food and agricultural product systems, but due to requests from other sectors, it has been expanded to cover the full range of products and services. This document describes the management system as it relates to Product Category Rules (PCRs) and Environmental Product Declarations (EPDs).

The Earthsure ecolabel name was trademarked with the US Patent office in 2006. All rights belong to the Institute for Environmental Research and Education (IERE), a non-profit headquartered in Washington State, USA.



## Definitions

**ACLCA:** American Center for Life Cycle Assessment, the professional society for LCA in the U.S.

**Background Data:** Data other than foreground data.

**CAS Number** – n. Chemical Registration numbers provided by the Chemical Abstracts Service.

**Conflict of interest** — n. A conflict of interest is a situation in which individual(s) in positions of trust have divided loyalties.

**Ecosphere flow:** flows directly to and from nature.

**EPD:** Type III Environmental Product Declaration as defined by ISO 14025.

**EPD Owner** — n. The organization developing an EPD in accordance with a published PCR. Usually the business providing the product.

**EPD program operator** — n an organization that conducts a Type III environmental product declaration program. This may or may not be the PCR program operator.

**Foreground data** — n. Data directly under the operational control of and measured by the owner of the EPD. This may include technosphere flows in the manufacturing phase, transport to and from the manufacturing location, and measured emissions from the facilities under operational control.

**Immediate family member** — n: a parent, sibling, spouse, child or step-child, or life partner.

**Independent manufacturing representatives** — n: individuals representing a company whose goods are covered in the PCR in whole or in part. They shall be independent of each other, which means that they are neither substantial direct customers or vendors (greater than 5 % of purchase or sales) nor partners of the other manufacturing company being represented.

**Industry expert:** an individual with a higher degree in the field (Master or Ph.D), or five years experience working in the industry in question.

**LCACP:** Life cycle assessment certified professional: an individual in good standing under the American Center for Life Cycle Assessment certification program, or other comparable program developed for LCA professionals under the ISO 17024 standard

**PCR committee:** group organized under a PCR operator to develop one or more PCRs in accordance with the PCR Operator's management system.

**PCR program operator:** an organization that develops or shepherds the development of one or more PCRs. PCR program operators may also be EPD program operators.

**PCR:** Product Category Rule, the detailed description of how a life cycle assessment should be performed for a particular functional unit, in order to obtain an environmental product declaration. A PCR also includes explicit instructions for the label itself.

**Primary Data:** Data measured by the owner of the EPD or data gathered directly from other entities in the value chain.

**Product:** Any goods or service [from ISO 14040]

**Secondary Data:** Data from non-primary sources, such as publications in the peer reviewed literature or grey literature such as government publications

**Substantial interest:** Earning at least five percent of one's annual income from a commercial interest that manufacturers or otherwise produces a product covered by a particular PCR or owning at least \$100,000 in stocks or bonds of such a commercial interest. Such ownership as a part of a mutual fund does not constitute substantial interest.

**Substantive compliance:** compliance to all applicable emissions rules and regulations. Errors in documentation are not substantive.

**System Function:** The social benefit provided by a product or service.

**Technosphere flow:** flows related to economic activity

**Tertiary Data:** Data derived from meta-analyses such as Life Cycle databases, Economic Input-Output data, and meta-analyses in the peer reviewed literature.

**UNSPSC Code:** The United Nations Standard Products and Services Code (UNSPSC) an open, global multi-sector standard for efficient, accurate classification of products and services.

## Standards Incorporated by Reference

ISO 14020 Environmental labels and declarations – General principles

ISO 14021:1999 Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling)

ISO 14025 Environmental labels and declarations — Type III environmental declarations — Principles and procedures

ISO 14040-2006 Environmental management — Life cycle assessment — Principles and framework

ISO 14044-2006 Environmental management — Life cycle assessment — Requirements and guidelines

ISO 14050, Environmental management — Vocabulary

ISO 17024-2003 Conformity assessment — General requirements for bodies operating certification of persons

ISO 21930 Sustainability in building construction — Environmental declaration of building products

## Program Operator

The Institute for Environmental Research and Education (IERE) is a not-for-profit organization with a mission to undertake and disseminate comprehensive, fact-based research for use in the development of responsible environmental policy, programs and decisions. IERE supports the use of Life Cycle Assessment as the best way to get all the environmental facts together in one place. The American

Center for Life Cycle Assessment is the flagship program of IERE. It is the professional society for LCA in the US.

IERE was founded in 1997, and it is headquartered in Washington State.

## Scope

The Earth sure program covers the entire economy. As required, sector by sector guidance is developed. [Examples](#) of this kind of guidance can be seen on the IERE website. To assure clarity and non-overlapping of the different PCRs, Earthsure uses the UNSPSC codes, which are an international e-commerce product coding system that covers the entire economy. IERE is a member of UNSPSC, and will provide new codes to the organization in the event that the need is discovered during its work.

EPDs can cover a portion of a life cycle (called a module) or an entire life cycle. Only in the case where the entire life cycle is covered can one understand the full environmental performance of a product. For products that are components, a cradle to gate assessment is appropriate. Only in the case where the product itself provides the desired end function can a full comparison be made between products. For example, a chair provides the function of seating, and though one may have different seating functions, it is not necessary to have more than the chair itself to provide the function. In this case, the chair LCA can be performed without resorting to sophisticated models of its use and end of life phases.

The table below shows the sectors covered by the UNSPSC codes, and whether that sector contains products that are only modules, products that provide the full life cycle function, or both.

Type	Code	Title
Both	10000000	Live Plant and Animal Material and Accessories and Supplies
module	11000000	Mineral and Textile and Inedible Plant and Animal Materials
module	12000000	Chemicals including Bio Chemicals and Gas Materials
module	13000000	Resin and Rosin and Rubber and Foam and Film and Elastomeric Materials
Both	14000000	Paper Materials and Products
module	15000000	Fuels and Fuel Additives and Lubricants and Anti corrosive Materials
module	20000000	Mining and Well Drilling Machinery and Accessories
module	21000000	Farming and Fishing and Forestry and Wildlife Machinery and Accessories
module	22000000	Building and Construction Machinery and Accessories
module	23000000	Industrial Manufacturing and Processing Machinery and Accessories
module	24000000	Material Handling and Conditioning and Storage Machinery and their Accessories and Supplies
module	25000000	Commercial and Military and Private Vehicles and their Accessories and Components
module	26000000	Power Generation and Distribution Machinery and Accessories
module	27000000	Tools and General Machinery
Both	30000000	Structures and Building and Construction and Manufacturing Components and Supplies
module	31000000	Manufacturing Components and Supplies
module	32000000	Electronic Components and Supplies
module	39000000	Electrical Systems and Lighting and Components and Accessories and Supplies
module	40000000	Distribution and Conditioning Systems and Equipment and Components
Both	41000000	Laboratory and Measuring and Observing and Testing Equipment
module	42000000	Medical Equipment and Accessories and Supplies
Both	43000000	Information Technology Broadcasting and Telecommunications

Type	Code	Title
Both	44000000	Office Equipment and Accessories and Supplies
module	45000000	Printing and Photographic and Audio and Visual Equipment and Supplies
module	46000000	Defense and Law Enforcement and Security and Safety Equipment and Supplies
module	47000000	Cleaning Equipment and Supplies
module	48000000	Service Industry Machinery and Equipment and Supplies
Both	49000000	Sports and Recreational Equipment and Supplies and Accessories
LCA	50000000	Food Beverage and Tobacco Products
Both	51000000	Drugs and Pharmaceutical Products
module	52000000	Domestic Appliances and Supplies and Consumer Electronic Products
Both	53000000	Apparel and Luggage and Personal Care Products
LCA	54000000	Timepieces and Jewelry and Gemstone Products
LCA	55000000	Published Products
LCA	56000000	Furniture and Furnishings Musical Instruments and Games and Toys and Arts and Crafts and Educational Equipment and Materials and Accessories and Supplies
LCA	60000000	
Both	70000000	Farming and Fishing and Forestry and Wildlife Contracting Services
Both	71000000	Mining and oil and gas services
Both	72000000	Building and Construction and Maintenance Services
module	73000000	Industrial Production and Manufacturing Services
Both	76000000	Industrial Cleaning Services
Both	77000000	Environmental Services
module	78000000	Transportation and Storage and Mail Services
module	80000000	Management and Business Professionals and Administrative Services
module	81000000	Engineering and Research and Technology Based Services
module	82000000	Editorial and Design and Graphic and Fine Art Services
module	83000000	Public Utilities and Public Sector Related Services
module	84000000	Financial and Insurance Services
Both	85000000	Healthcare Services
Both	86000000	Education and Training Services
Both	90000000	Travel and Food and Lodging and Entertainment Services
LCA	91000000	Personal and Domestic Services
Both	92000000	National Defense and Public Order and Security and Safety Services
Both	93000000	Politics and Civic Affairs Services
module	94000000	Organizations and Clubs

Where a product represents a module, it can sometimes be developed into a full, comparable EPD, when standard scenarios are provided. For example, all building components and equipment and supplies can be analyzed over the life cycle if a reference building scenario is employed. Fuels can only be evaluated if one has decided on a reference combustion scenario. For example, automotive fuels can only be evaluated in the context of a standard model automobile scenario.

## Purpose of the Program

The Purpose of the Earthsure program is to provide comprehensive environmental data to purchasers (business and individuals) so that the power of the market can move the economy towards overall environmental improvement. For each step along the value chain there is potential for an EPD, but the Earthsure program has focused on only a few points along the value chain, because only a few points

represent an opportunity to leverage substantially improved overall environmental and economic performance.

## **Data Confidentiality and Management**

IERE supports the use of the US Life Cycle Inventory, and intends that the data it collects or manages eventually find its way into this public, free repository of life cycle data. However, it is essential that the confidentiality of data provided for the EPD be maintained. To support both these goals, IERE may execute confidentiality agreements about this business-specific data but it also requires release of data in an aggregated format as long as at least three examples of a unit process are aggregated.

## **Elements of the Earthsure Environmental Product Declaration**

The Earth sure ecolabel is a Type A label, that is, it discloses the environmental impact indicator results. The list of impact indicators is variable, depending on the product in question. In some cases there may also be non-impact category indicators, such as total energy used. All products whose EPDs are validated by IERE may display the Earthsure logo, which is imprinted with a website url specific to that EPD. The information about the LCIA results may be printed on the packaging, or they may be available on the product-specific website and/or in printed materials.

Product category rules developed under the Earthsure program are made available for free to all users, and it is not a requirement that IERE be used for the validator of the EPD developed from the PCR. However all validators must be certified LCA professionals, through either the American Center for Life Cycle Assessment LCAP Program, or through a comparable program. PCRs, however are not available for reuse/repackaging in other formats, e.g. software. IERE retains the copyright on all PCRs developed under the Earthsure program.

Dependent on the specific product category rules, the Earthsure program may also require an environmental management system and disclosure of significant environmental aspects, goals for improvement and past history of meeting goals.

Depending on the industry sector, the program may also require substantive compliance to environmental laws and regulations.

IERE may from time to time subcontract the performance of LCA studies or of verification activities under the Earthsure program, but it remain responsible for the quality and accuracy of the Earthsure Ecolabels. The LCA studies performed as the basis of the label are the responsibility of the owner of the EPD (usually the product manufacturer), not of IERE. Any LCA studies must be performed under the direction of a Life Cycle Assessment Certified Professional or the equivalent.

There are five kinds of documents developed under the Earthsure program

- The Product Category Rule (PCR)
- Sector-specific guidance for PCRs
- The LCA study to support the EPD
- The Environmental Product Declaration

- The on-product label

## Product Category Rule

### Elements of the PCR

The Product Category Rule is a detailed document identifying exactly how the studies supporting the EPD are to be performed, and how the information is to be disclosed. It should be clear enough that no matter who performs the studies behind an EPD, the results will be the same within the natural variability of the data. The PCR is the property of IERE, with all copyrights reserved.

The PCR includes:

- The name of the product category
- Whether the PCR refers to a product or a module
- The UNSPSC code(s) it applies to
- The dates of development and expiry
- The names and affiliations of members of the PCR committee
- How the PCR was funded
- Efforts undertaken to assure openness and transparency in development
- Details of LCA scoping (see below)
- A description additional information to be included (if any)
- If the additional information is a separate claim, how that should be documented;
- Any PCR-specific verification required in addition to the usual programmatic verification;
- The content and format of the EPD itself
- Any additional information be included;
- If the additional information is a separate claim, how that should be documented;
- The content and format of the on-package label, if any
- Any PCR-specific verification required in addition to the usual programmatic verification.

### Process of PCR Development

IERE seeks existing PCRs through intense internet searches. If a defunct PCR exists, the program operator is invited to participate. If an existing PCR exists, but is inappropriate to the proposed use, the owner of the PCR is contacted and permission to use the existing PCR as a basis of the new PCR is requested. IERE also seeks LCA studies of the product being evaluated. If no such studies exist, an LCA is commissioned.

Development of the Product Category Rule (PCR) is done in committee, including at a minimum, representatives of an organization seeking the EPD and either one upstream vendor and/or one customer (ideally both). No single interest may represent more than 50% of a PCR Committee. Independence of committee members are identified through financial interest. Any organization whose income depends less than 10% upon another organization represented in the committee is deemed to

be independent. Individuals are deemed to be independent if their income or any immediate family member's incomes are less than 5% dependent on an organization represented in the committee.

On the Earthsure website, IERE posts open invitations to participate in the PCR committee at least one calendar month before the start of deliberations. It also seeks a range of potential interested parties and invites them to participate through either email or through phone call. Records of these invitations are kept in the PCR background documentation.

Members of the PCR committee are required to sign a disclosure of conflicts of interest, also kept in the record.

The process and decisions undertaken by the committee are substantially similar to those shown in the study: [Guidance for Multi-Stakeholder Life Cycle Scoping, with a Food Container Example](#) (Schenck et al., 2008). The primary output is all the scoping decisions for the LCA in accordance with the table shown as an appendix in that document. With few exceptions, the committee meets via teleconference.

## LCA Study

Normally the LCA study is carried out by the organization seeking the EPD, either internally or through a contractor. For the first or first few EPDs, IERE may carry out the study itself. Such studies are reviewed per the ISO 14040 and 14044 standards.

## Life cycle modeling defaults

Regardless of the product, assumptions must be made to perform an LCA. Some of these assumptions apply across the entire life cycle of the product, while others affect only one life cycle phase.

### Units

All units for LCA modeling and reporting must be in standard international (metric) units. Ancillary documentation (e.g. test results) need not be translated into SI units, but can be included in the PCR documentation as is.

### Functional Units

Functional units for full system, cradle to grave analyses must reference an amount (or extent) a time measure and a measure of quality. Where ASTM standards exist for product quality, this standard must be referenced. In the absence of an ASTM standard, another industry consensus standard may be referenced. Where no industry consensus standard exists, the definition of the functional unit may develop a functional unit pro-tem, but efforts should be made to influence the development of such a standard.

In the case of a food item, the functional unit is one serving per the US Department of Agriculture.

### Reference Unit



Where the product in question is a module, not a complete product, the module reference unit will also follow the format of the functional unit, but will clearly state that they do not represent the entire life cycle of the product, and it may lack temporal characteristics.

### **Raw Material Extraction**

All inventory of extracted minerals must be expressed as in-ground, in-air or in-water amounts.

Life Cycle inventories are either complete or system terminated inventories. A complete inventory has only ecosphere flows (elementary flows) and one technosphere output flow (the product). All other life cycle inventories have both input and output technosphere flows.

Recycling into the raw material is considered to be a form of raw material extraction.

### **Models of Recycling**

All materials that are recycled from the unit processes are considered to have left the system. Recycled content can only be modeled in the system where there is primary data showing that the percent of recycled content was specified in the purchase of materials. Where the product system has specified recycled content, all the environmental burdens of recycling must be included in the raw material portion of the inventory. Where recycled content is not specified, the inventory data from the relevant industry sector must be used as-is.

### **Waste Management**

Where primary data exists on the disposal methods for waste streams, that data must be used for calculating the life cycle inventory of the waste unit processes. Where no primary data is available, the national average data provided by the relevant national body collecting this data must be used. In the United States, this is the U.S. EPA.

### **Transportation**

Where primary data on fuel consumption and transport method are known, these must be the basis of the analysis. Where these are not known, the models imbedded in the US Life Cycle Inventory database must be used. Where these do not exist, the following assumptions must be made:

1. Rail: all transportation is one-way, and the rail energy expenditure is assumed to be derived from diesel fuel.
2. In the US, road freight is modeled per the Energy Information Agency data. Where comparable data is available in other countries, that data is used. Where there is no data, road freight is assumed to be in heavy trucks, with a fuel efficiency of 2.3 km/liter (5.5 miles per gallon), and the haul-back empty 50% of the time.

### **Electrical Power Grids**

Where primary data is available for the electrical power grid for a given unit process, it must be used to model the electricity source. If data is not available at that level, the next highest aggregation of electrical grid data must be used, with a preference of local>regional>national>multi-national. In the US, the source of national grid data is the U.S. LCI Database at the national Renewable Energy Lab.

Carbon offsets or Renewable Energy Credits may not be used in the inventory. On-site renewable energy from solar cells or other renewable energy source can only be included in the inventory if they are not grid-linked.

### **Naming of Flows**

The technosphere flows must be named using the UNSPSC code, although other naming conventions may also be used. Where the flow is not named in the UNSPSC code, the next higher level in the naming convention must be used, with an explanation that a lower level is intended.

Ecosphere flows must be named using the CAS number. Other names may also be included. Where no CAS number is available, the IUPAC name may be used, except as noted below. Some technosphere flows are also chemical substances and they may have a CAS number as well as a UNSPSC number.

Certain ecosphere flows are groups of chemicals, for example, particulate matter, suspended solids, BOD, and VOCs represent heterogeneous mixtures. These inventory flows are sometimes characterizable due to their similar modes of action, (e.g. for particulate matter) but often they are not. In this case the naming of the flows shall follow conventions used in the relevant regulatory standards of the country.

### **Classification and Naming of Unit Processes**

Unit processes are primarily identified by the inputs and outputs of the process, but processes are identified as being one of the following classes of unit processes.

1. **Raw material extraction:** examples: mining, fishing, agriculture, silviculture, air separation, recycling, composting.
2. **Beneficiation** (simple purification): examples: washing coal, debarking logs, water filtration, sterilization.
3. **Conversion to raw materials:** examples: smelting, cracking, polymerization, formulating.
4. **Shaping:** examples: forming, molding, coating, plating, chopping, machining.
5. **Thermal Treatment** examples: heating, cooling, freezing, refrigeration.
6. **Assembly:** examples: gluing, welding filling, labeling, painting, printing
7. **Distribution:** examples: warehousing, retail, fulfillment.
8. **Transport:** examples: rail, air, road, sea, pipeline.
9. **Disposal:** examples: landfilling, incineration.
10. **Energy Production:** examples: combustion, extraction of solar, kinetic & geothermal energy.
11. **Services:** examples: computing analyzing banking, food service, teaching, entertaining.

In naming a unit process, the category of unit process must be named and then a description of the particular process must be chosen. Over time, we anticipate that these names will become standardized.

From time to time, IERE may perform detailed studies developing life cycle inventories for given standard processes. These will be posted on the IERE website.

### **Meta-data required for LCI data**

LCI data must include the following information for each flow into and out of the unit process.

1. Whether the flow is an ecosphere or technosphere flow.
2. Whether the data is primary, secondary or tertiary.
3. Whether the data is measured or calculated.
4. If the flow is calculated, the basis of the calculation.
5. The dates over which the data was collected.
6. The geographic coverage of the data.
7. The mean, standard deviation and statistical distribution of the data. Where this is unknown, the data will be assumed to be log-normally distributed with a coefficient of variation of 1.0.

### **Sector-specific guidance**

Where relevant international standards exist, they will be applied to the PCR. IERE may engage in the development of sector specific guidance: such guidance will be developed in an open process with ample opportunity for comment, and a third-party review team consisting led by an LCACP, at least one industry expert and a third individual.

### **Validation of PCR**

Whenever a new PCR is developed a third-party review of the analysis is performed and the review includes a review of both the PCR and the supporting LCA. That review is by a panel (at least three people) led by a Life Cycle Assessment Certified Professional (or equivalent), and includes at least one industry sector expert.

The review committee is charged with evaluating whether:

- The PCR has been developed in accordance with the ISO 14040 series of standards and, specifically, in accordance with 6.7.1 of ISO 14025;
- The PCR fulfills these general program instructions;
- The LCA-based data, together with the additional environmental information prescribed by the PCR, give a description of the significant environmental aspects of the product.

At the same time that the PCR is being reviewed by a panel of experts, it is also posted, and open for public comment. IERE will post it on its Earthsure website, and will provide notification through its mailing list (over 1000 LCA experts) and will also post a notification on the ACLCA website.

## EPD Review

EPDs developed from an approved PCR must be reviewed by an independent third party. The review includes both the LCA and the EPD itself. The issues being reviewed include whether:

- The LCA study is in conformance with
  - the PCR;
  - the ISO 14040 series of standards;
  - these general program instructions
- The EPD review includes detailed evaluation of whether
  - The data has adequate coverage, precision, completeness, representativeness, consistency, reproducibility, sources and uncertainty;
  - The LCA-based data is plausible and of adequate quality and accuracy;
  - The additional environmental information is of adequate quality and accuracy;
  - Any supporting information is of adequate quality and accuracy.

Subsequent to the first EPD under a particular product category, the review of the EPD is performed internally by IERE. The validation is done by individual(s) not involved in performing the LCA studies.

## Funding of Program Development

The Earth sure program was developed by IERE from general program funds, without a specific sponsor. Development of new Product Category Rules is variously funded (usually by the first companies interested in the label) and the program is maintained by fees for the use of the ecolabel. Fees are developed on a case-by-case basis.

## Review of Program

The Earth sure Program is reviewed at least every five years or as needed. Review is triggered by process improvement efforts within IERE, by policy changes within IERE or by known changes in law or policy. The review includes:


- Checking for updates on relevant international standards;
- Checking for public Product Category Rules developed by others;
- Making changes in the program to accommodate changing policy goals and to conform to the standards (if necessary);
- Posting changes on the IERE website.

## PCR Decision Worksheet

The work of the PCR committee is primarily to make the decisions outlined in the worksheet below. Default decisions are shown. During the development process, all decisions are validated and any that are changed are justified.

Required Point for ISO 14040/44/25	Default	
The intended application 14040: 5.2.1.1; 14044:4.2.2	Type III Environmental Product Declarations	
The reasons for carrying out the study 14040:5.2.1.1; 14044:4.2.2	To support the EPD; to learn more about environmental impacts of the product; to improve environmental performance	
The intended audience, i.e. to whom the results of the study are intended to be communicated 14040: 5.2.1.1; 14044:4.2.2; 14025:9.1	Business customers	
Whether the results are intended to be used in comparative assertions intended to be disclosed to the public. 14040:1.2.1.1; 14044:4.2.2	No comparative assertions are intended	
Product system to be studied 14040:5.2.1.2; 14044:4.2.3.1; 14025:6.7.1		
Functions of the product system 14040: 5.2.1.2; 14044:4.2.3.1; 14025:6.7.1		
Functional unit 14040: 5.2.1.2; 14040:5.2.2; 14044:4.2.3.1; 14044:4.2.3.2; 14025:6.7.1		
System boundary 14040: 5.2.1.2; 14040:5.2.3; 14044:4.2.3.1; 14044: 4.2.3.3.1; 14025:6.7.1	Shown in product-specific flow chart	
Which life cycle stages are included		
Unit Process Descriptions 14044: 4.2.3.3.2	Needed for each PCR separately; flow chart and information modules	
Allocation procedures 14040: 5.2.1.2; 14040:5.3.4; 14044:4.2.3.1; 14025:6.7.1	No system boundary expansion permitted; allocation via mass; sensitivity analysis whenever mass is not available.	
Impact categories selected and methodology of impact assessment, and subsequent interpretation to be used; 14040: 5.2.1.2; 14044:4.2.3.1; 14044:4.2.3.4; 14025:6.7.1	<b>Impact Category</b>	<b>Model</b>
	Climate Change	IPCC 2007
	Stratospheric Ozone Depletion	Montreal Protocol
	acidification	Stoichiometric
	eutrophication	Redfield ratio
	photochemical smog	TRACI
	ecotoxicity	USE-tox equivalent
	water resource depletion	Net freshwater use
	mineral resource depletion	Mineral use for reserves<200 years
	fossil fuel depletion	TRACI
	land use/biodiversity	Area of land occupied
soil depletion.	Mass of soil lost from site, Universal Soil Loss Equation or equivalent	

Required Point for ISO 14040/44/25	Default
Units: 14025:6.7.1	Standard International (metric) units per functional unit
<b>Interpretation</b> 14040: 5.2.1.2; 14044:4.2.3.1	The label & contents should be disclosed together
Types and sources of Data 14044:4.2.3.5	Peer reviewed preferred; US LCI where possible; Ecoinvent where not
<b>data quality requirements</b> 14040: 5.2.1.2; 14044:4.2.3.1; 14044: 4.2.3.6.2; 14025:6.7.1	
age	No data over five years old, unless it can be documented that the unit process has not changed.
geography	
cutoff values	95% of mass & energy; all known toxicity issues
technology coverage	described in unit process descriptions
precision	Addressed statistically. Where unknown, the estimate assumes log normal distribution with a coefficient of Variation of 1.0
industry coverage	Calculated based on mass or number estimates of total industry
representativeness	one year's production (year disclosed)
uncertainty of the information	Ranges estimated by primary data source
Additional Environmental Information 14025:6.7.1	
Materials and Substances to be declared 14025:6.7.1	
Content and format of the label 14025:6.7.1	See below
Assumption: 14040: 5.2.1.2; 14044:4.2.3.1	We have assumed that consumption of food and the subsequent elimination and treatment are not affected by the environmental impact of the food production
Value Choices: 14044:4.2.3.1	
Limitations 14040: 5.2.1.2; 14044:4.2.3.1; 14044:4.2.3.1	Applicable only to particular product for time of validity
Period of validity of the label 14025:6.7.1	Three years
Initial data quality requirements 14040:5.2.1.2; 14044:4.2.3.1	See above
Type of critical review, if any 14040:5.2.1.2; 14044:4.2.3.1; 14044: 4.2.3.8; 14025:5.7	At least three member review for PCR; led by LCACP, including at least one industry expert
Type and format of the report required for the study 14040:5.2.1.2; 14044:4.2.3.1; 14025:6.7.1	Must conform to PCR Instructions
<b>Content of the Label ISO 14025:7.2.1</b>	
identification and description of the organization making the declaration;	
description of product	
product identification (e.g. model number)	

Required Point for ISO 14040/44/25	Default
name of the programme and the programme operator's address and, if relevant, logo and website	Institute for Environmental Research and Education www.Earth sure.org/ 
PCR identification	(name and UNSPSC designation)
date of publication and period of validity	
data from LCA, LCI or information modules	LCIA results
additional environmental information	
content declaration covering materials and substances to be declared (e.g. information about product content, the including specification of materials and substances that can adversely affect human health and the environment, in all stages of the life cycle)	To the best of our knowledge, this product contains no materials known to substantially damage human health or the environment, outside of those noted in the LCA study found at: _____
information on which stages are not considered, if the declaration is not based on an LCA covering all lifecycle stages	
statement that environmental declarations from different programmes may not be comparable	Ecolabels from other sources may not be directly comparable to this one
l) information on where explanatory material may be obtained.	for more information, go to <a href="http://www.iere.org/earthsure/">www.iere.org/earthsure/</a>
PCR review, was conducted by:	Chair name and organization: for contact information email <a href="mailto:staff@iere.org">staff@iere.org</a>
Independent verification of the declaration and data, according to ISO 14025:2006	Internal to IERE

## References

ISO 14025-2006 Environmental labels and declarations — Type III environmental declarations — Principles and procedures

ISO 14040-2006 Environmental management — Life cycle assessment — Principles and framework

ISO 14044-2006 Environmental management — Life cycle assessment — Requirements and guidelines

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