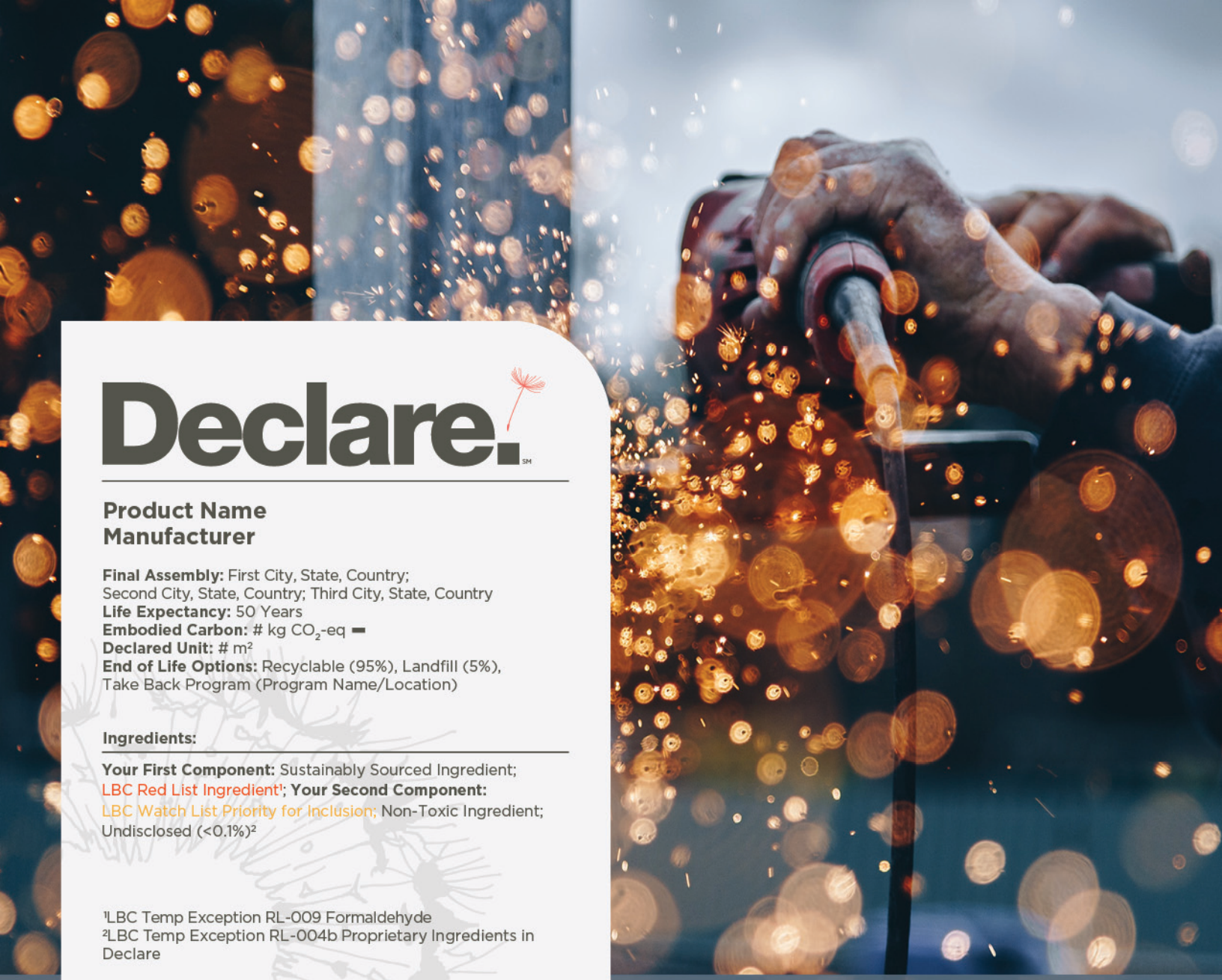


Declare.℠

Product Name
Manufacturer

Final Assembly: First City, State, Country;
Second City, State, Country; Third City, State, Country
Life Expectancy: 50 Years
Embodied Carbon: # kg CO_2-eq ▬
Declared Unit: # m^2
End of Life Options: Recyclable (95%), Landfill (5%),
Take Back Program (Program Name/Location)

Ingredients:

Your First Component: Sustainably Sourced Ingredient;
LBC Red List Ingredient[1]; **Your Second Component:**
LBC Watch List Priority for Inclusion; Non-Toxic Ingredient;
Undisclosed (<0.1%)[2]

[1]LBC Temp Exception RL-009 Formaldehyde
[2]LBC Temp Exception RL-004b Proprietary Ingredients in Declare

Living Building Challenge Criteria: Compliant

I-13 Red List:

☐ LBC Red List Free
■ LBC Red List Approved
☐ Declared

% Disclosed: 99.9% at 100ppm
VOC Content: # g/L

I-10 Interior Performance: CDPH Standard Method v1.2-2017
I-14 Responsible Sourcing: Product Available with FSC Chain of Custody

XXX-XXXX
EXP. 01 OCT 2021
Original Issue Date: 20XX

Third Party Verified

MANUFACTURER CLAIMS VERIFIED BY **THIRD PARTY VERIFIED ASSESSOR**
INTERNATIONAL **LIVING FUTURE** INSTITUTE℠ living-future.org/declare

DECLARE 2.0 MANUFACTURER'S GUIDE

INTERNATIONAL
LIVING FUTURE
INSTITUTE℠

Declare Manufacturer's Guide

April 2024 — Last update: 16 April 2024

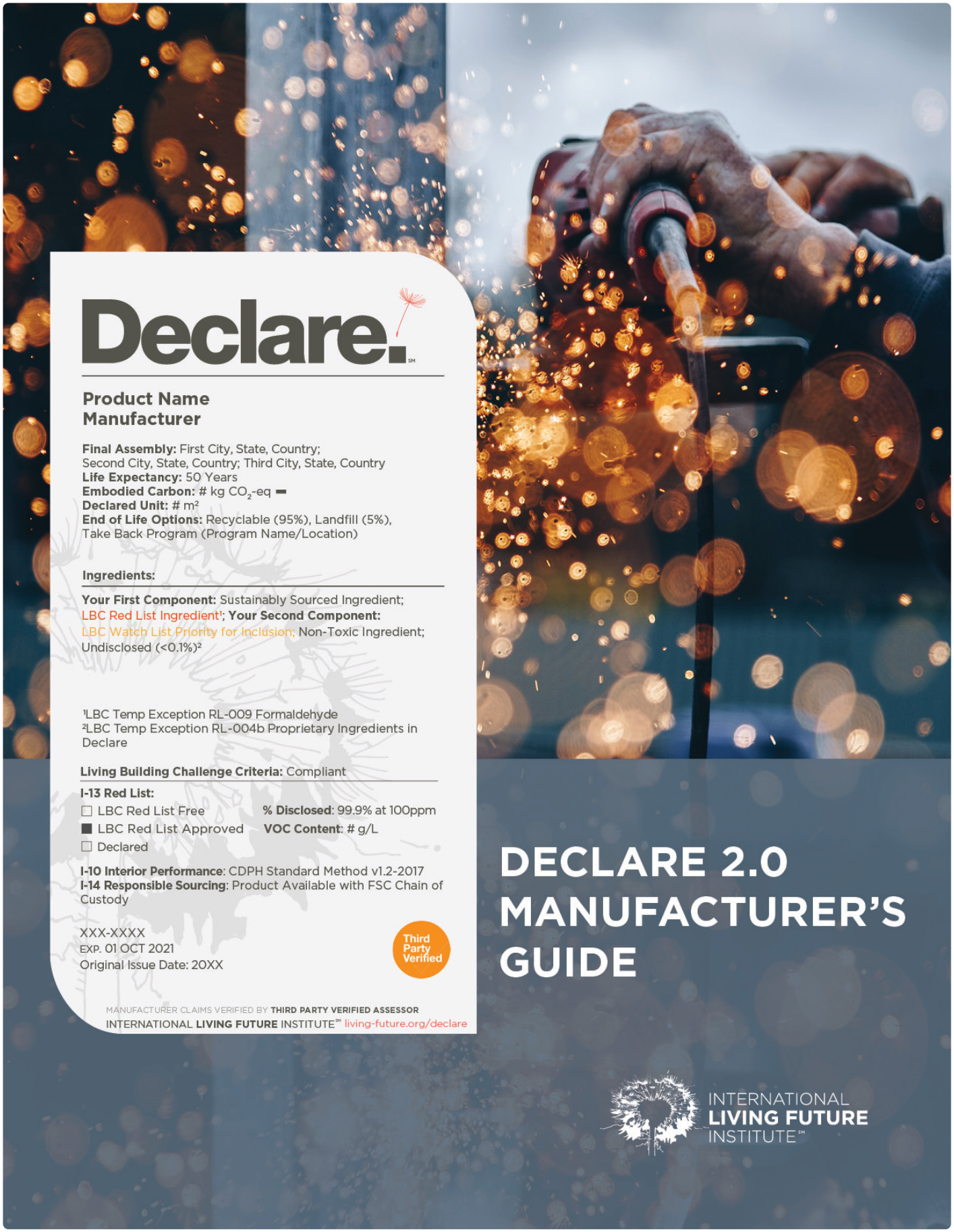
International Living Future Institute

Table of Contents

April 2024

The April 16, 2024 update that follows is the current version of the Declare Manufacturer’s Guide. Previous versions of the Manufacturer’s Guide are available to download here.

ILFI DECLARE MANUFACTURER'S GUIDE


Declare.
Product Name
Manufacturer
Final Assembly: First City, State, Country;
Second City, State, Country; Third City, State, Country
Life Expectancy: 50 Years
Embodied Carbon: # kg CO2-eq
Declared Unit: # m2
End of Life Options: Recyclable (95%), Landfill (5%),
Take Back Program (Program Name/Location)
Ingredients:
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LBC Red List Ingredient1; Your Second Component:
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Undisclosed (<0.1%)2
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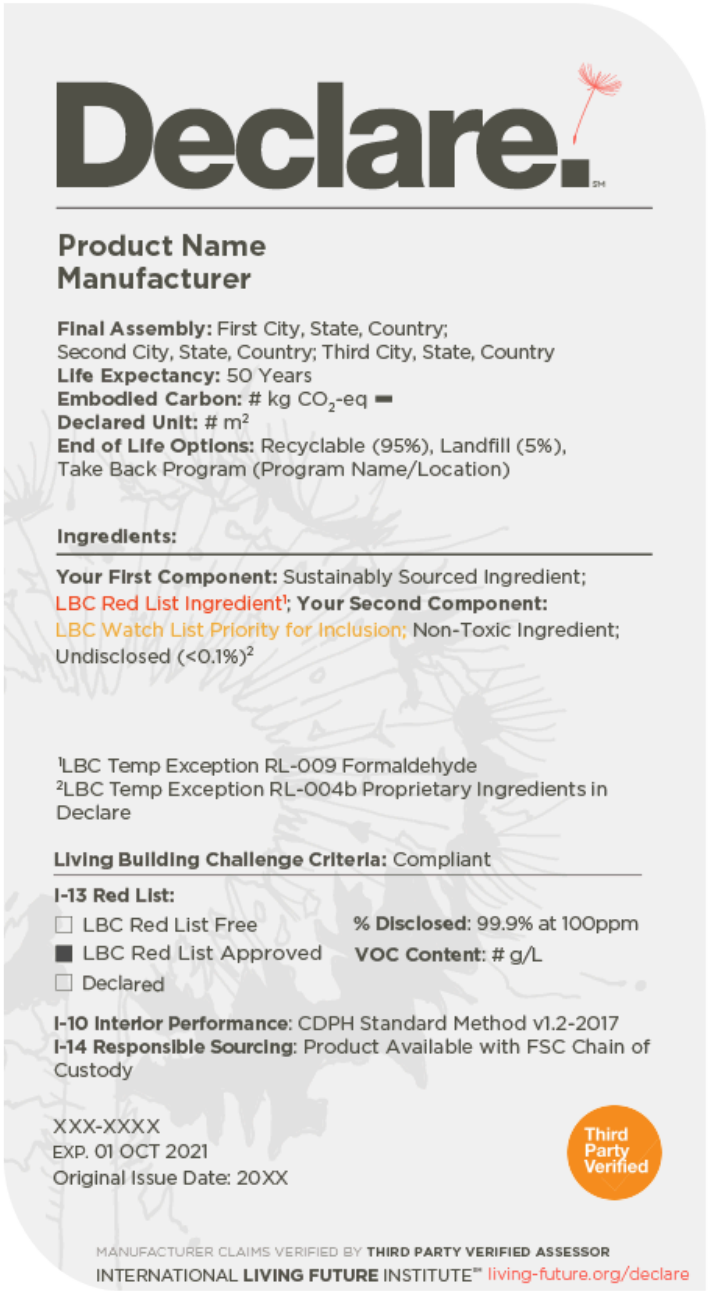
Program Overview



Declare is an ingredients label for building products paired with an online database of healthy materials for building project specifications. It allows manufacturers of ecologically sound products to demonstrate market leadership in the growing movement toward product transparency and health in the built environment and provides them an expanded point of entry into the world’s most groundbreaking sustainable building projects.

For Manufacturers:

Declare is a targeted way to connect with future customers. We offer an expanded point-of-entry into groundbreaking regenerative projects and a powerful platform to connect with consumers. Benefits of Declare:

VISIBILITY
Declare serves a dedicated market of highly-visible:

- Living Building Challenge projects
- Architecture firms
- Corporations
- Municipalities

These groups use the Declare Database and Living Building Challenge Red list to make specification decisions.

TRANSPARENCY
Consumers value transparency. Declare is a tool to show customers that your product is one that they can trust.

For Designers and Specifiers

The tiring materials specification process just became much easier. We offer a free resource to help you make product selections. The Declare Database is:

TRANSPARENT
By offering a platform for public disclosure that surpasses any other materials label, Declare rises above the greenwash and enables a deep connection between suppliers and consumers.

SIMPLE
Declare takes complex chemical analysis and raw material source location information and provides it to consumers in an easy-to-use nutrition label.

FREE
Spreading the use of healthy materials is important to us. The Declare Database is free for everyone.

Legal Disclaimers

Copyrights and Trademarks

existing context, without written permission. For information, contact the International Living Future Institute (the Institute or ILFI) at info@living-future.org.

For information, address:
info@living-future.org

The International Living Future Institute
PO Box 5874
Portland, OR 97228-5874

Label Use

Manufacturers that are provided a Declare label have the right to use the label on general marketing materials and registered product materials. The label cannot be used on or associated with any other product than the product designated on the label. The label cannot be modified, altered or otherwise tampered with in any way.

Program Terms and Conditions

All participating manufacturers must agree to the Declare Terms and Conditions Agreement before submitting Declare label applications for feedback or formal review.

Read the full Declare Terms & Conditions.

INTRODUCTION TO ILFI

The International Living Future Institute is an inspiring hub for visionary programs. Our mission is to lead and support the transformation toward communities that are socially just, culturally rich and ecologically restorative. Composed of leading green building experts and thought-leaders, the Institute is premised on the belief that providing a compelling vision for the future is a fundamental requirement for reconciling humanity’s relationship with the natural world. The Institute runs the Living Building Challenge, Living Community Challenge, Living Product Challenge, Zero Energy Certification, Zero Carbon Certification, Core Green Building Certification, the Cascadia Green Building Council, Ecotone Publishing, Declare, JUST, and other leading programs.

INTRODUCTION TO DECLARE

The demand to understand the health impacts of building products is increasing. Human and environmental health considerations have emerged as crucial factors in material manufacturing and selection. Declare allows manufacturers of ecologically sound products to demonstrate market leadership in the growing movement toward product transparency and health and secure a competitive advantage through transparent ingredient reporting.

Declare offers manufacturers an expanded point of entry into the world's most groundbreaking sustainable projects. Over 450 teams currently pursuing the Living Building Challenge—widely accepted to be the most advanced green building standard in the world—will use the Declare database and label to select products that meet the requirements of the Living Building Challenge Materials Petal. The Declaration Status and summary of Living Building Challenge compliance on the label simplifies the process for materials specification and project certification, ultimately aligning with the Materials and Health + Happiness Petals of the Living Building Challenge.

For more about Declare, visit living-future.org/declare/declare-about/.

To access our Declare database, visit living-future.org/declare.

For Declare inquiries, contact our team at declare.support@living-future.org.

Declare and the Living Building Challenge

The Living Building Challenge acts to rapidly diminish the gap between current limits and end-game positive solutions. It aims to transform how we think about every single act of design and construction as an opportunity to positively impact the greater community of life and the cultural fabric of our human communities.

The Challenge is a philosophy first, an advocacy tool second and a certification program third. Within the larger Living Future Challenge framework that covers the creation of all human artifacts and edifices, the Living Building Challenge focuses on humanity's largest creations—its buildings. It is in essence a unified tool for transformative thought, allowing us to envision a future that is Socially Just, Culturally Rich and Ecologically Restorative.

The Living Building Challenge is comprised of seven performance categories, or "Petals": Place, Water, Energy, Health + Happiness, Materials, Equity, and Beauty. Petals are subdivided into a total of twenty Imperatives, each of which focuses on a specific sphere of influence. This compilation of Imperatives can be applied to almost every conceivable building project, of any scale and any location—be it a new building or renovation of an existing structure.

To learn more about the Living Building Challenge, visit living-future.org/lbc.

For Living Building Challenge Inquiries, contact our team at LBC.support@living-future.org.

Summary of Changes in Declare 2.0

In October 2019, ILFI released Declare 2.0. This latest iteration of the program seeks to push the industry towards a more holistic approach to material health. Declare 2.0 allows manufacturers to report on previously unrecognized impact areas, such as embodied carbon and wood sourcing. Additional compliance pathways for chamber testing are also available for indoor products considered to have the potential to emit VOCs.

Along with the additional reporting information, adjustments have been made to the structure of the Declare label itself. All final assembly locations are now represented on the same label, and a product's Declaration Status is now solely tied to its compliance with the Red List Imperative and ingredient disclosure. In addition, Declaration Statuses were renamed "LBC Red List Free" (formerly "Red List Free") and "LBC Red List Approved" (formerly "LBC Compliant") to reinforce their connection to the LBC Red List as opposed to another Red List. Compliance with other applicable imperatives, including Healthy Interior Performance and Responsible Sourcing, are each referenced separately on the label.

With the latest iteration of the Red List, released with the latest version of LBC 4.0, came the LBC Watch List. The Watch List acts as a signal to manufacturers and project teams to identify chemicals and compound groups that ILFI, with support from our industry advisory partners, has identified for potential future inclusion on the LBC Red List. Watch List chemicals identified as "Priority for Red List Inclusion" are now flagged on the label in orange to increase awareness, but do not affect Declaration status or overall LBC Compliance. EPA Chemicals of Concern and REACH chemicals are no longer flagged in orange on the label.

Finally, the list of Declare Program Exceptions has been consolidated and streamlined to provide manufacturers with clear guidance surrounding each exception's applicability and purpose. Additionally, the process and criteria for obtaining a Declare Program Exception are now publicly available for reference.

Program Explanation

Living Building Challenge Alignment

Declare is a voluntary self-disclosure program that aims to transform the building materials industry toward healthier products through ingredient transparency.

The Declare label evaluates a product according to its compliance with all Imperatives applicable to the selection of building products within the Living Building Challenge 4.0 standard, including:

- **Imperative 10**, Healthy Interior Performance, requires compliance with the California Department of Public Health (CDPH) Standard Method v1.1-2010 (or international equivalent) for all interior building products that have the potential to emit Volatile Organic Compounds (VOCs). The Declare label

confirms a product's compliance with CDPH or an equivalent emissions standard.
- **Imperative 13**, Red List, requires that manufacturers disclose the ingredients in their products to ensure that they are free of Red List chemicals. Declare supports the Living Building Challenge by providing a transparent materials database that project teams can select from to meet the Red List requirements.
- **Imperative 14**, Responsible Sourcing, requires that manufacturers of wood products demonstrate sustainable extraction through certification with the Forest Stewardship Council, by meeting ILFI's definition of low risk or salvaged wood, or through the use of a formal LBC Exception.

LBC Compliant Products

If a product meets the applicable requirements for each Imperative above, the product is considered fully compliant with the Living Building Challenge, and will be noted as such on the Declare label graphic itself.

Additional Program Alignment

Products with an active Declare label also contribute to the following additional LBC 4.0 Imperatives:

- **Imperative 12**, Responsible Materials, requires project teams to install one unique Declare label product for every 200 square meters of project area.
- **Imperative 16**, Net Positive Waste, requires that the project meet aggressive material diversion rates throughout the design, construction, operation, and end of life phases of the building. The Declare label includes product end of life disposal options to help project teams make informed decisions on their specified products and their impact during the building's end of life phase.

Declaration Status Overview

A product's compliance with the requirements of the Red List Imperative is represented by the product's Declaration Status. There are three possible Declaration Statuses:

"LBC Red List Free" products disclose 100% of product ingredients plus residuals present at or above 100 ppm (0.01%) in the final product and do not contain any Red List chemicals. They have been shown to meet the requirements of the Living Building Challenge Red List Imperative.

Products that receive a designation of "LBC Red List Free" will have a Red List Free sticker appear on the database entry.

“LBC Red List Approved” products meet the written requirements of the Living Building Challenge Red List Imperative, but rely on one or more Declare Program Exceptions to demonstrate compliance. A minimum of 99% of product ingredients plus residuals present at or above 100 ppm (0.01%) in the final product are disclosed. The product may contain one or more Red List chemicals if they fall under an existing, published Declare Program Exception. They have been shown to meet the requirements of the Living Building Challenge Red List.

“Declared” products disclose 100% of product ingredients plus residuals present at or above 100ppm (0.01%) in the final product, but contain one or more Red List chemicals that are not covered by an existing Declare Program Exception. “Declared” labels require additional product research and vetting to locate a fully compliant product before the “Declared” product may be used on a Living Building Challenge project.

Program Alignment

Building Standards and Certifications

LEED v4 and v4.1 Building Product Disclosure and Optimization—Material Ingredients, Option 1 & Option 2

Declare has been approved as a compliance pathway for the LEED v4 and v4.1 Building Product Disclosure and Optimization Credit, Option 1. The LEED v4 and v4.1 credits call for the chemical inventory of a product to at least 1000ppm; Declare labels that achieve a declaration status of “LBC Red List Free” or “Declared” fulfill the credit disclosure requirements. Additionally, any fully disclosed “LBC Red List Approved” label and any “LBC Red List Approved” label using the RL-004b Proprietary Ingredients Exception, with a minimum disclosure threshold of 99.9%, meets the LEED v4 and v4.1 Building Product Disclosure and Optimization Credit, Option 1 reporting requirements.

Declare is also a compliance pathway for LEED v4.1 Building Product Disclosure and Optimization Credit, Option 2. Declare labels that achieve Third Party Verification and a declaration status of “LBC Red List Free” fulfill the credit optimization requirements.

International WELL Building Standard

Declare products that are “LBC Red List Free” or “LBC Red List Approved”, have been approved as compliance pathways for the International WELL Building Standard v1 Feature 26 for Enhanced Material Safety and WELL v2 Feature 13 Enhanced Material Precaution. These Features takes a precautionary approach to hazards by emphasizing healthy material selection to minimize risks.

In addition, all active Declare labels contribute to WELL v2 Feature 14 Material Transparency. This Feature prioritizes supply chain and ingredient transparency to offer product specifiers the tools they need to make fully informed choices when selecting healthier products.

Enterprise Green Communities Criteria

Declare products, with any Declaration Status and either self-disclosed or Third Party Verified, are approved as a compliance pathway for Enterprise Green Communities Criteria (2020) in the Materials Category, Criterion 6.1 Ingredient Transparency for Material Health. Declare products that are Third Party Verified and are “LBC Red List Free”, or “LBC Red List Approved” with RL-004b Proprietary Ingredients as the only Declare Program Exception used, are approved as a compliance pathway for Criterion 6.3 Chemical Hazard Optimization. The Declare database includes a filter, which allows manufacturers to self-select whether they comply with the Mandatory and Optional requirements outlined in Criterion 6.4 Healthier Materials Selection. Declare labels additionally disclose information regarding VOC content and VOC emissions in relation to SCAQMD and CDPH requirements that correlate to the requirements of Criterion 6.4 Healthier Material Selection. Declare labels with reported embodied carbon and a publicly available EPD can qualify for Criterion 6.5 Environmentally Responsible Material Selection. Finally, the final assembly location(s) of a Declare product can help project teams pursue Criterion 6.7 Regional Materials.

Procurement Guidelines

United States Environmental Protection Agency (EPA) Recommendations to Federal Purchasers

Declare is recognized by the US EPA in its Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasers. The recommendations, which help federal purchasers identify and procure environmentally sustainable products and services, include Declare as a recommended standard for a range of low-emitting materials, including carpet, flooring products, furniture, and interior latex paint.

Chemicals of Concern Lists

European Union Substances of Very High Concern (SVHC) List and Substitute It Now (SIN) List

Manufacturers can opt-in to an optional screening of a product’s disclosed chemicals against two chemicals of concern lists used primarily in the European Union. The **REACH SVHC Candidate List** represents substances deemed Substances of Very High Concern (SVHCs) by the European Chemicals Agency (ECHA) due to meeting several criteria related to hazard and toxicity, described in REACH Article 57. When ECHA identifies a substance as an SVHC and includes it in the Candidate List, this can trigger certain legal obligations for the importers, producers and suppliers of an article that contains such a substance. The **ChemSec SIN (Substitute It Now) List** is a list of hazardous chemicals that are used in a wide variety of articles, products and manufacturing processes around the globe. The SIN abbreviation – Substitute It Now – implies that these chemicals should be removed as soon as possible as they pose a threat to human health and the environment. The SIN List is developed by the non-profit ChemSec in close collaboration with scientists and technical experts, as well as an advisory committee of leading environmental, health, consumer organisations.

Product Databases

mindful MATERIALS

A group of leading architecture firms created the mindful MATERIALS initiative to provide a simple platform for manufacturers to communicate transparency and optimization for their products, while also providing

designers a single place to search for materials. Declare product information is directly entered into the mindful MATERIALS database.

Reading the Declare Label

Final Assembly Locations are final point of assembly, fabrication or manufacture of the product.

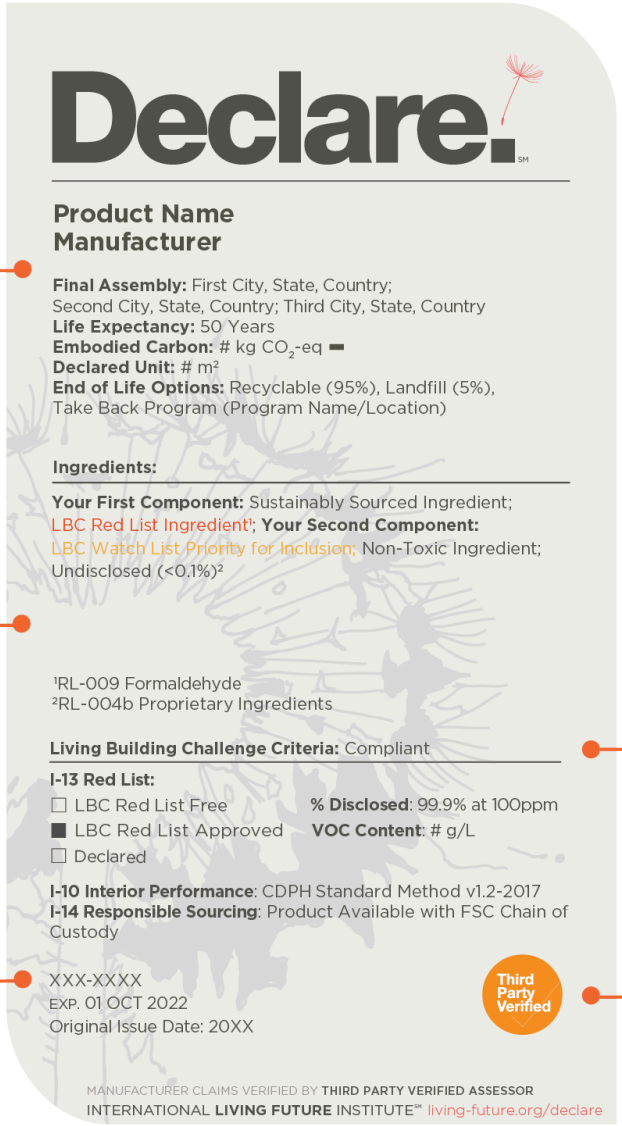
Embodied Carbon (optional) discloses the cradle-to-gate impacts of manufacturing the product as reported by a product-specific Type III Environmental Product Declaration.

End-of-life options include take back programs; salvageable or reusable in its entirety; biodegradable/compostable (%); recyclable (%); landfill (%); hazardous waste.

Ingredients can be reported by component or as a substance list. Red List chemicals appear in dark orange; Watch List Priority for Inclusion chemicals appear in light orange.

Declare Program Exceptions recognize specific market limitations and provide a compliance pathway for products to obtain LBC Red List Approved recognition.

Declare Identifiers (XXX-XXXX) are specific to a company and product. **Expiration Dates** are 12 months after the month of issuance. **Original Issue Date** indicates how long the product has been registered in Declare.



LBC Criteria: Compliant signifies compliance with all Imperatives applicable to the selection of building products within the Living Building Challenge. If a product meets the requirements for **all applicable Imperative requirements**, the product is noted as Compliant.

I-13 Red List displays three boxes that represent Declaration Status of the label based on LBC Red List ingredients and Declare Program Exceptions. See **Program Clarifications** for full descriptions.

I-10 Interior Performance denotes the ILFI-approved testing method and associated volatile organic compounds (VOC) emissions limits that have been met, if an interior building product that has the potential to emit VOCs.

I-14 Responsible Sourcing denotes the sustainable extraction practice required of wood products through Chain-of-Custody Certification through the Forest Stewardship Council, by meeting ILFI's definition of low risk or salvaged wood, or through the use of a formal LBC Exception.

Third Party Verification logo indicates assessment by a professional third-party assessor to ensure the accuracy of the manufacturer's supply chain, purchasing, ingredient claims, LBC compliance, and embodied carbon if reported.

Product & Manufacturing Information

- Product Identifiers
- Final Assembly Location(s)

- Life Expectancy
- Embodied Carbon Data (Optional)
- End of Life Options

The top portion of the label helps consumers confirm they are specifying the product that matches the ingredients list. Life cycle information aligns with the Living Economy Sourcing and Net Positive Waste Imperatives of the Living Building Challenge. Carbon information aligns with the Energy + Carbon Reduction Imperative of the Living Building Challenge.

All Final Assembly Locations associated with a product can be represented on the same label. If four or more locations are provided within a submission, a summary will be provided by ILFI on the label graphic:

- All locations within the same country: “Multiple locations in *(name of country)*”
- All locations within the same continent: “Multiple locations in *(name of continent)*”
- Locations in differing continents: “Multiple global locations”

Each location will remain listed on the accompanying entry on the Declare database.

Ingredient Reporting

Ingredients may be reported in one list, or separated by component/part. Ingredients without restriction appear in grey; Red List chemicals appear in dark orange; LBC Watch List Priority for Red List Inclusion chemicals appear in light orange. Corresponding percentage(s) of proprietary ingredients are listed in parentheses. Declare Program Exceptions are also listed under the ingredients when applicable.

When applicable, VOC content for wet -applied products will appear in this portion of the label.

Living Building Challenge Criteria & Compliance Indicators

The final portion of the Declare label evaluates and lists the product’s compliance with the product applicable Imperatives within the Living Building Challenge.

- I-13 Red List (Declaration Status)
- I-10 Interior Performance
- I-14 Responsible Sourcing

If a product is deemed compliant in the relevant Imperative criteria areas in this portion of the label, the label will indicate overall compliance with the Living Building Challenge.

Declare labels are active for 12 months, at which point the license requires renewal.

Labels that have undergone Third Party Verification will receive a corresponding sticker.

Frequently Asked Questions in Declare 2.0

Program Changes

What will change in Declare 2.0?

This latest iteration of the program seeks to push the industry towards a more holistic approach to material health. Declare 2.0 allows manufacturers to report on previously unrecognized impact areas, such as embodied carbon and wood sourcing. Additional compliance pathways for chamber testing are also now available, and will be explicitly stated on the label.

Along with the additional reporting information, adjustments have been made to the structure of the Declare label itself. A product's Declaration Status is now solely tied to its compliance with the Red List Imperative and ingredient disclosure. Compliance with other applicable imperatives, including Healthy Interior Performance and Responsible Sourcing, are each referenced separately on the label.

With the latest iteration of the Red List, released with the latest version of LBC 4.0, came the LBC Watch List. The Watch List acts as a signal to manufacturers and project teams to identify chemicals and compound groups that ILFI has identified for potential future inclusion on the LBC Red List. Watch List chemicals identified as "Priority for Red List Inclusion" are now flagged on the label in orange to increase awareness, but do not affect Declaration status or overall LBC Compliance.

Have there been any changes to the ingredient reporting requirements in Declare 2.0?

No. Each submission still requires disclosure of all ingredients present in the final product to 100ppm (0.01%) with a CASRN and percentage by weight. The Proprietary Ingredients Exception also still allows manufacturers to hold up to 1% of ingredients by weight as undisclosed on the label and database, provided they can confirm there are no Red List ingredients present in the proprietary content.

When can I switch to the new Declare 2.0 label?

All existing labels will be eligible for transition to the updated Declare label and program requirements at the time of renewal.

All new labels submitted on or after February 1, 2020 will be processed under Declare 2.0.

Am I required to switch to the new Declare 2.0 label at the time of renewal?

Yes. All labels renewing on or after February 1, 2020 must transition to Declare 2.0. The last Declare 1.0 labels should therefore all expire on February 1, 2021, when Declare 1.0 will sunset.

Have there been any changes to pricing?

There will be slight adjustments made to the Declare label pricing structure. ILFI has not increased the

Declare fee structure in three years; these increases reflect inflation and cover increasing time and resources for ILFI to provide customer service, support its technology platform, develop additional program advancements and provide marketing support.

Declare 2.0 also has modified tiers and fees to incentivize scaling. Tiered pricing is now available when a manufacturer has 10-25 labels and more than 25 labels.

The annual fee for a new label license is:

1-9 Labels	10-24 Labels	25+ Labels
1100 USD/Label	900 USD/Label	600 USD/Label

Manufacturers looking to pursue 100+ labels should contact ILFI about customized reduced pricing options.

Renewals receive a 20% discount. This renewal discount is available whether or not there are changes to the Declare label.

The annual fee to renew a label license is:

1-9 Labels	10-24 Labels	25+ Labels
900 USD/Label	750 USD/Label	500 USD/Label

As an example, if you choose to purchase 10 Declare labels, the first 9 labels will be priced at $1,100 USD/label, and the 10th will be priced at $900 USD. The total will amount to $10,800 USD. When you renew the subsequent year, if you still possess 10 active labels, the subsequent renewal fee for each label will be $750 USD/label, or a total of $7,500 USD.

Declaration Status and LBC Compliance Changes in 2.0

How has “Declaration Status” changed in Declare 2.0?

A product’s Declaration Status is now solely tied to ingredient transparency and Red List compliance. Compliance with other applicable imperatives, including Healthy Interior Performance and Responsible Sourcing, are each referenced separately on the label.

What does “LBC Compliance” refer to in Declare 2.0?

“Living Building Challenge: Compliant” is now a holistic evaluation and designation given to a product that meets all applicable Imperative requirements of the Living Building Challenge. Compliance is determined separately from Declaration Status during ILFI’s review of the product submission. This designation takes into account compliance with the **Red List Imperative, Healthy Interior Performance Imperative, and Responsible Sourcing Imperative.** If a product is not compliant with all three Imperatives, the word

“Compliant” will not appear on the label, however the product may be compliant with some of the Imperatives.

If my formulation is remaining the same when I renew next year, is there a chance my Declaration Status could change? What about my LBC Compliance?

Declaration Status: Maybe, but likely not. Although some chemical classes were re-named and/or consolidated, no new unique CASRNs were added to the Red List at the time that LBC 4.0 was launched in May 2019. A product’s Declaration Status is solely tied to a product’s compliance with the Red List (not the Priority for Red List Inclusion list). The Red List will be updated in May 2020, and after that will move to a schedule of updates on January 1 each year to provide consistent timing, therefore manufacturers renewing on or after May 2020 should refer to the latest version of the Red List to determine compliance.

Additionally, VOC emissions testing is now represented under I-14 Healthy Interior Performance. Therefore, products that could achieve LBC Compliant or Red List Free status only due to emissions testing may now be eligible.

LBC Compliance: Maybe, but likely not. The only ways your product’s compliance would be called into question would be if the product is wood-containing and does not meet one of the compliance options listed in the Manufacturer’s Guide, or if your product utilizes an exception that is being consolidated to exclude your current application. We will reach out to the few manufacturers this applies to.

How can I find up-to-date LBC Temporary Exceptions?

All currently valid LBC Temporary Exceptions that apply to the Declare program will be listed in the online Declare Manufacturer’s Guide starting on February 1, 2020. ILFI will also release the full suite of LBC Materials Petal Exceptions in March of 2020 which will include any Red List exceptions that cannot be used by Declare Manufacturers, but can be used by project teams to justify the use of a product with Red List Ingredients in it on an LBC Materials Petal Project.

Am I required to report embodied carbon data for my Declare label? Will I be penalized if I don’t include carbon data?

Embodied carbon reporting on a Declare label remains in pilot phase and will not be included on Declare 2.0 labels until further notice. When the option is opened to additional manufacturers, it will remain an optional reporting field, and will not affect Declaration Status or LBC Compliance. If a manufacturer opts to not include carbon data, the applicable fields will not appear on the label graphic or accompanying database entry.

Program Submission Changes

Has the submission process on Toxnot (3E Exchange as of September 2023) changed at all?

No. The process of creating a new submission and submitting for renewal has not changed— the new and

updated fields will be visible on the “Declare Summary Data” page.

PROGRAM REQUIREMENTS AND CONTENTS

General Product Information Reported

The following identifying product information must be included in each Declare application:

Product Name

Manufacturers should report the product name(s) or product family name. The product name listed on the Declare label should be easy for specifiers to reference back to specific product SKUs.

Product Manufacturer

Product manufacturer is tied to the manufacturer company name listed on the 3E Exchange (formerly Toxnot) account by default and will match the manufacturer name listed in the Manufacturer filter on the Declare database.

Final Assembly Location(s)

All product final assembly locations applicable to the product formula listed in the Declare application must be represented in “City, State/Province/Region, Country” format. Products manufactured in a location that has not been listed are not considered products with an active Declare label.

All final assembly locations listed for a product will be represented on the Declare label and accompanying entry on the Database. Up to three distinct locations will each be listed on the label graphic. If 4+ locations are provided in a given submission, the locations will be summarized on the label graphic using the following conventions:

- All locations within the same country: “Multiple Locations in *(name of country)*”
- All locations within the same continent: “Multiple Locations in *(name of continent)*”
- Locations in differing continents: “Multiple Global Locations”

Each location will remain listed on the Declare Database entry.

Life Expectancy, in years

Manufacturers should report the expected life of the product, in years, from manufacturing to the end of its useful life and/or the end of the product’s warranty period.

Product End of Life Options

A minimum of one product end of life option must be reported. Packaging and process materials should not be reported within end of life options.

Take Back Program: To be used when the manufacturer or industry trade group offers a mechanism both implemented and overseen by a manufacturer/trade group to assume physical responsibility of a product, product component, and/or packaging at the end of their useful lives with the intent to reuse or recycle the items received into new useful goods. Manufacturers must list the specific Take Back Program within the submission, when applicable.

Salvageable/Reusable in its Entirety: To be used when a product or assembly of a particular service that is capable of being reused without significant remanufacturing or alteration after it has been retired from its initial consumer-based installation or function.

Biodegradable/Compostable: To be used when all or a portion of the product is composed of organic matter that can be naturally broken down by microorganisms and the product does not contain any ingredients that would negatively alter the natural ecosystem. If only a portion of the product is biodegradable/compostable, the manufacturer must report the percentage by weight of the portion.

Recyclable: To be used when a product, or portion thereof, can be processed into new saleable goods. If only a portion of the product is recyclable, the manufacturer must report the percentage by weight of the portion.

Hazardous Waste: To be used when a product, or a portion of a product, is considered hazardous to humans or the environment and requires specific end of life processing to mitigate risk of exposure to hazardous ingredients. The portion of the product that requires hazardous waste processing must be reported if selected.

Landfill: To be used when a product, or a portion of a product, has no other end of life option and the product, or a portion of the product, must be sent to municipal landfill for disposal. The manufacturer must report the percentage by weight of the portion. By default, unreported percentages will be listed as landfill.

CSI MasterFormat Classification

Manufacturers must select the applicable CSI Masterformat Division that applies to the referenced product. In many cases, a CSI Masterformat section number is also required.

Product Description

Manufacturers must submit a product description. It is recommended that the product description include product attributes and performance characteristics relevant to the specification of the product for the sustainable construction industry. Manufacturers may also list color/finish options, ordering or specification instructions, and any other helpful details to identify, specify, order, install, or maintain the product. The description may be used to specify any product options that are excluded from inclusion in the Declare label.

Product Image (optional)

Manufacturers also have the recommended option of submitting a product image as part of the Declare submission.

Product-Specific Information Reported

Manufacturers report the following information, as applicable, as part of the Declare submission.

Ingredients present at or above 100 ppm (minimum program requirement)
VOC content for site-installed, wet-applied products – as applicable (minimum program requirement)
Emissions testing results or certificate of compliance – as applicable (Impacts LBC Compliant Status)
Sourcing confirmation for wood – as applicable (Impacts LBC Compliant Status)
Embodied Carbon (optional)

Ingredient Information Reported

Disclosure Threshold

Declare requires the disclosure of all intentionally added ingredients plus residuals at or above 100 ppm (0.01%). Within Declare, disclosure is defined as public disclosure on the label and in the Declare database of the ingredient name, associated CASRN (if applicable), and the percentage or percentage range by weight for each ingredient, with respect to the finished product (meaning “as delivered to the job site”). Naturally occurring impurities, and process chemicals do not need to be reported, will not be listed on the label, and will not be used to determine a product’s Declaration Status.

All Declare labels MUST demonstrate this content disclosure for at least 99% of the total product by weight, with an allowance for up to 1% proprietary ingredient withholding. *Note*: if the Proprietary Ingredients Exception is used, the product cannot contain any Red List chemicals that are not covered by a Declare Program Exception as products with a Declaration Status of “Declared” must disclose 100% of ingredients.

Product ingredients that qualify for Special CASRN Reporting Requirements may be exempt from reporting CAS Numbers and will still be considered fully disclosed when the special requirements are met.

Disclosure Methods

Currently, product manufacturers have two options to organize and report ingredient content inventory: Just Substances, or Materials and Substances. This overview provided by 3E Exchange shows where these options can be found within the 3E Exchange (formerly Toxnot) interface. Both reporting options are LBC- and LEED-compliant. They are similar to the distinctions between Basic and Nested content inventories. in the Health Product Declaration (HPD).

Materials and Substances reporting is often well-suited to complex products by making it clearer where

substances are present in the product as assembled. Chemical ingredients or substances are individually listed “within” their material or component.

Using the materials and substances approach, a manufacturer would organize their disclosure by each material or component, and then within each material list its constituent ingredients. For example, instead of listing: “Nylon 6, Polypropylene, Polyethylene Terephthalate, Blue Colorant” a materials and substances disclosure might list: “**Backing:** Polypropylene, Polyethylene Terephthalate; **Fiber:** Nylon 6, Blue Colorant.” The product’s Declare database entry will assign the percentage weight of substances proportional to the overall product, not to their material.

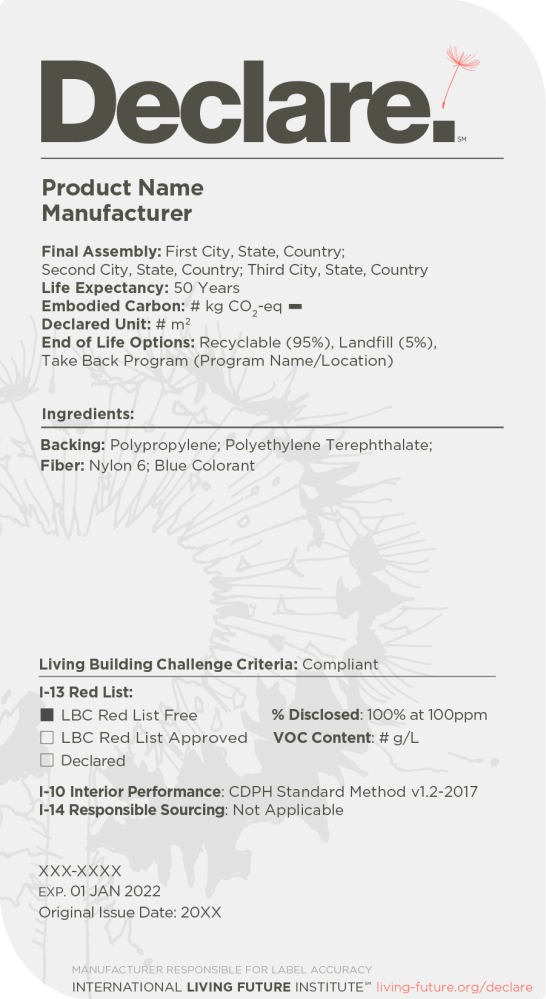


Figure 1: Example of a Materials and Substances ingredient disclosure.

Just Substances reporting discloses chemical ingredients or substances only at the “substance” level regardless of the material organization of the product. Using the same example, the carpet would list polypropylene, polyethylene terephthalate, nylon 6 and the colorant, and will still assign the percentage of weight of substances proportional to the overall product.

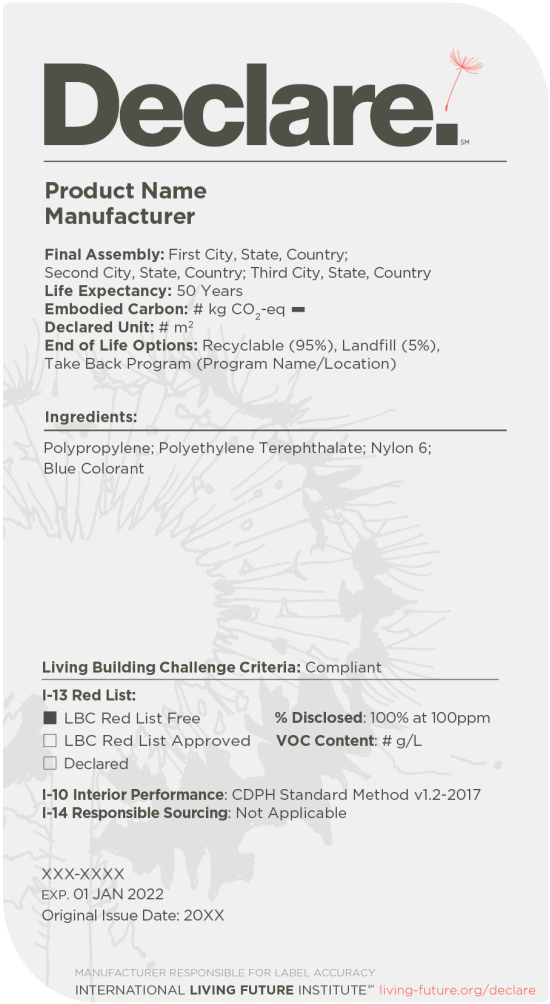


Figure 2: Example of a Just Substances ingredient disclosure.

Ingredient Names

Manufacturers must list the generic name for the components/parts and chemicals reported. Manufacturers may not list the trade name or brand name of supplied components or their ingredients without the expressed written consent of the supplier. The exception to this requirement is a supplier with an active Declare label. Manufacturers may reference the Declare ID for components that have already been disclosed through Declare.

Ingredient Percentages

All ingredients must be reported with a fixed percentage by weight or percentage ranges. If reported using a percentage range, the percentage delta may not exceed 20. For example, Nylon 6 may be listed as present from 14-34%, but not as 25-48% as this exceeds the range of 20. Ingredient ranges may be appropriate in order to accurately represent available product dimensions, multiple raw material suppliers, or slight changes due to multiple manufacturing locations. Ingredient ranges may also be used to mask the exact

formulation of a product on the public database listing.

Ranges exceeding a delta of 20 must be justified and have their rationale submitted to declare.support@living-future.org for approval. Examples of approved cases include:

- A manufacturer uses a single label to represent multiple available wood species options for a countertop. Since the wood range represents component options, the range of each wood type represented should each be listed as present from 0-95%.
- A carpet tile contains 60% thread, composed of some percentage of Nylon 6 and Nylon 6,6 which are used interchangeably in the supply chain. Listing both Nylon 6 and Nylon 6,6 as present from 0-60% represents this variability.

Listing Multiple Products

A product family, or multiple products, can be listed on a single Declare label if each of the products has identical content, or the content differences between the products do not exceed 10% of the total mass of the product.

All other information on the Declare label, except final assembly location, must be consistent across all listed products, including Responsible Sourcing and Healthy Interior Performance compliance.

Special CASRN Reporting Requirements

Biological Ingredients: Biological ingredients such as wood and agrifiber do not require disclosure of a CASRN unless the ingredient is already registered with Chemical Abstract Services, in which case the number should be reported.

Electronic Components: Small electrical components do not require CASRN reporting, but the manufacturer must verify that these components are RoHS compliant. These components must be documented using the Small Electrical Components Exception. All products with small electrical components will therefore result in a Declaration Status of “Red List Approved” or “Declared”.

Float Glass: Float glass does not require CASRN reporting, but all glass coatings/interlayers/films must be reported.

Geological Materials: Geological materials such as natural granite do not require disclosure of a CASRN; manufactured stone products require disclosure of CASRNs for all resins/binders/sealers in the product.

Impurities: There are instances when a Red List chemical is present in a product because it naturally occurs in the product’s raw materials or was unintentionally added through certain manufacturing or reclamation processes. Impurities do not require reporting on a Declare label.

Recycled Content: Recycled content should be reported using all known primary ingredients; a CASRN should be reported as applicable (based on guidance above).

Reaction Products: When a reaction occurs during the manufacturing of the product, the final reacted substance must be reported with a CASRN. If any residual reaction substances remain in the product above 100 ppm that are not covered by the CASRN of the reaction substance, they must also be reported with a CASRN.

Small Product Hardware: Small metal hardware must be reported with the metal type (i.e. steel), but reporting an alloy number is not required.

Required Non-CASRN Identifiers

Some material types are not accurately represented within the CASRN system. The disclosure requirements for the below materials use a different type of identifier.

European Community Number: If a CASRN is not available for a chemical, but a European Community (EC) Number is available, the EC number may be used to identify the chemical if the chemical name, molecular formula or molecular structure of the chemical is available on the ECHA Chem database. If the chemical contains a halogen (F, Cl, Br, I) a toxic heavy metal (As, Pb, Cd, hexavalent Cr, Hg), tin (Sn), or any benzene rings, then it cannot be self-disclosed in Declare and needs to be submitted and screened against the Red List chemical classes by an ILFI approved assessor. If the assessor determines that the chemical belongs to a Red List chemical class, the EC number must be submitted to declare.support@living-future.org for direct addition to the Priority List.

Metals and Metal Alloys: There are two pathways for disclosing metals and alloys.

1. Preferred pathway: Metals and Metal Alloys must be identified using the Unified Numbering System (UNS) or European Norm (EN) alloy numbers. Additional information about the alloy, such as ASTM grade, may also be reported as secondary information.
2. Alternative pathway: If a UNS or EN number is not available, then the CASRNs for the individual elements that make up the alloy may be disclosed (for example, brass is an alloy containing the pure elements copper, zinc, lead, tin, etc.)

The use of CASRNs referring to metal alloys (ie steel, bronze, brass, is disallowed. If an alloy contains a toxic heavy metal (As, Pb, Cd, hexavalent Cr, Hg) as defined by the ILFI Red List, but the alloy itself is not on the Red List, it may be used in a product as long as it complies with the relevant Red List exceptions. However, the alloy may be added to future versions of the Red List.

Metal surface treatments and coatings (ie galvanization, plating, etc) must be reported as separate ingredients from the base alloy.

Polymers with no CASRN: There are two pathways for disclosing a polymer with no CASRN or EC number. (If a polymer has a CASRN or EC number, it must be disclosed using that identifier according to typical Declare requirements.)

1. Preferred pathway: Manufacturers may use the guidance below to identify and screen the polymer's key attributes.

2. Alternative pathway: Manufacturers may inventory the unreacted monomers and other additives using typical CASRN disclosure requirements.

Guidance for Polymers with no CASRN: This reporting pathway requires the engagement of an ILFI-Approved Third Party. Manufacturers or the Third Party must contact Declare.Support@living-future.org before pursuing this pathway and provide ILFI with the results of the supplier outreach survey below.

When disclosing polymers with no CASRN, all substances associated with the polymer and present above 100 ppm, shall be reported according to the typical Declare requirements. Examples include residuals, unreacted monomers, catalysts, functional additives, UV or heat stabilizers, colorants, plasticizers, and processing aids.

For the specific polymer substance with no CASRN, the following information is required:

- **Polymer Name**: Be as detailed as possible. IUPAC naming rules can help provide guidance. If oligomers are present in the final polymer, describe them here.
- **Type of Polymer** – choose from one of the following types:
  - Thermoset prepolymer (i.e. partially crosslinked)
  - Crosslinked thermoset (i.e. extensively crosslinked)
  - Thermoplastic
  - Elastomer
  - Other – only to be used if the others do not apply. If chosen, include a descriptor of the polymer type – do not leave this listed as “Other”
- **Molecular Weight** Number Average Molecular Weight in Daltons (Da) – choose from one of the following:
  - <1,000 Da
  - ≥1,000 Da and ≤ 10,000 Da
  - >10,000 Da
  - Enter a specific numerical value
- **Percentage of Polymer <500 Da**: Provide the percentage of the polymer that has a molecular weight of <500 Da. If this is unknown, enter “unknown”.

The name of the polymer will be disclosed using the following format: **[Polymer Name] ([Type of Polymer], [Number Avg. Mol. Weight], [% <500 Da])**. For example: Polystyrene-comb-polyisoprene (Thermoplastic, >10,000 Da, 0.05% is <500 Da).

In addition, responses to the following questions must be provided by the supplier of the polymer to determine compliance with the Red List and Declare requirements:

- Does this polymer have a CASRN or EC number? If so, please provide that number and use the normal process for disclosing this material.
- Provide the trade name of the polymer and other identifying information to the ILFI-approved third-party. As with all materials in Declare, supplier names and polymer trade names will not be publicly identified or disclosed unless permission has been granted to do so.
- Have all intentionally added substances associated with the polymer above 100 ppm been disclosed

to the requester? These include residual and unreacted monomers, functional additives, stabilizers, colorants, plasticizers, processing aids, oligomers, and catalysts.

- Does this polymer contain any of the following atoms/compounds?
  - Chlorine
  - Tin
  - Arsenic
  - Cadmium
  - Chromium VI
  - Lead (added)
  - Mercury
  - Carbon-Fluorine bond
  - Alkylated Phenol
  - BPA or its structural analogues
- Is this polymer marketed as having antimicrobial properties?
- Is this substance considered a flame retardant containing a fluorine, chlorine, bromine, or iodine atom?
- Is this considered a formaldehyde-based substance or was it generated from the polymerization of formaldehyde?
- Was this substance generated from the reaction of phthalic anhydride with alcohol(s)?
- Is this a wood treatment containing creosote or pentachlorophenol?

If the polymer has no CASRN or EC number and all intentionally added substances have been disclosed to the assessor, then the polymer is compliant with the Declare disclosure requirement. A response of “Yes” to any of the chemical screening questions indicates the polymer is considered to be on the Red List. The polymer will be directly added to the Priority List for future addition to the Red List.

Site-Installed, Wet Applied Products

VOC Content Reporting

All site-installed, wet applied products must report regulatory VOC content in grams per liter.

Products that exceed the CARB 2007 Suggested Control Measure (SCM) for Architectural Coatings or South Coast Air Quality Management District (SCAQMD) Rule 1168 for Adhesives and Sealants applicable limits are not considered compliant with the requirements of the Red List Imperative of the Living Building Challenge and as such will result in a Declaration Status of “Declared” as long as 100% of product contents are disclosed and all other program requirements are met.

Reference: https://ww3.arb.ca.gov/coatings/arch/approved_2007_scm.pdf

Living Building Challenge Compliance

In addition to ingredient disclosure and Red List avoidance, the Declare label also evaluates a product

according to its compliance with all Imperatives applicable to the selection of building products within the Living Building Challenge 4.0 standard, including I-13 Red List, I-10 Healthy Interior Performance and I-14 Responsible Sourcing. Labels that read "**Living Building Challenge**: Compliant" are compliant with all three of these Imperatives, as applicable.

I-13 Compliance: Transparency and Red List Avoidance

Red List Compliance

Products that receive a status of either "LBC Red List Free" or "LBC Red List Approved" are approved without further documentation for use in the LBC I-13 Red List Imperative. Products that have a declaration status of "Declared" require due diligence as per the requirements of the LBC Materials Petal Handbook before they may be approved for use.

See Program Clarifications for additional clarifications on the relationship between Declare labels and Living Building Challenge requirements.

How Annual LBC Red List Changes Affect Product Manufacturers

Declare labels are valid for one year (12 months) from the time of issuance. An active Declare label with a status of LBC Red List Free, LBC Red List Approved, or LBC Compliant at the time of specification (when the project team places the product order with the manufacturer) is sufficient documentation of product compliance with I13 Red List. This remains true even if a constituent chemical in the product is added to the Red List prior to the label's expiration date. ILFI will encourage project teams to download the Declare label information at the time of specification.

Products in Declare will be evaluated against the LBC Red List version that is active when a manufacturer submits the product for its annual label renewal. At that time, a product with a Declare status of LBC Red List Free, LBC Red List Approved, or LBC Compliant may subsequently receive Declared status because a constituent chemical was subsequently added to the Red List and the product formulation wasn't changed. ILFI will inform project teams that if they did not document the compliance status of the Declare label at the time of specification, they may cross-reference the Red List ingredient identified on the renewed Declare label with the contents of the Red List at the time of project registration, to demonstrate compliance.

I-10 Compliance: Interior Products with the Potential to Emit VOCs

Product Chamber Testing for Interior Products

All building products that have the potential to emit Volatile Organic Compounds and are intended for

installation within the building envelope (defined as interior of the wall and roof vapor barrier) must supply a laboratory certificate of compliance with an Approved Product Emissions Standard.

If a building product, for which chamber testing is required, does not supply a laboratory certificate of compliance or conformant product certification, it will not be considered compliant with the Healthy Interior Performance Imperative of the Living Building Challenge, and will be identified as such on the Declare label.

Although product VOC emissions compliance no longer impacts a product's Declaration Status and compliance with LBC Imperative I-13 Red List under Declare 2.0, emissions testing may be required to demonstrate compliance with certain Declare Program Exceptions, such as RL-009b – Formaldehyde.

Emissions Reporting Requirements

The LBC I-10 Healthy Interior Performance Imperative requires individual concentration results for each of the target VOCs as outlined in any of the Approved Product Emissions Standards for building products with the potential to emit that are installed in the project. These individual concentration results do not need to be additionally submitted if a product has already qualified for the Approved Product Emissions Standard, though the standard or certification documentation that is submitted must clearly indicate that all applicable target VOC thresholds were met. The laboratory certificate of compliance or associated summary report must either have an expiration date after, or a testing date within the three years prior to, the date of specification (at the time of material research and vetting for the project).

Total VOCs (TVOCs) or any form of combined VOC results that are not accompanied by individual concentration results are not accepted as IAQ Testing in this Imperative unless explicitly stated through an existing LBC Temporary Exception.

Total VOCs (TVOCs) or any form of combined VOC results that are not accompanied by individual concentration results are not accepted as I10-3 CDPH Compliance Documentation in this Imperative unless explicitly stated through an existing Declare Program Exception.

I-10 Compliance Clarifications

Products Containing Composite or Engineered Wood

Composite wood products, or products that contain composite wood, are required to provide additional VOC emissions documentation to an Approved Product Emissions Standard or Conformant Certification to meet the requirements of this Imperative in the Living Building Challenge and receive a listed compliant pathway on the product's Declare label. Otherwise, the product Declare label will display: "Not Compliant". Documentation and certifications that demonstrate low formaldehyde emissions, such as CARB ASTM and/or TSCA Title VI Compliance or BIFMA X7.1 testing, must be supplemented by additional documentation demonstrating CDPH / Approved Products Emission Standards Compliance for the purposes of the Living Building Challenge.

Structural Members – Composite or Engineered Wood

Structural members made of composite or engineered wood are not required to demonstrate compliance to the above; the CDPH Standard excludes structural material. Manufacturers of these products that pursue a Declare label for the product will see their label read “Not Applicable” for this LBC criterion. Project teams pursuing LBC are provided the following clarification:

> “Project teams are advised that while structural material is not subject to the requirements of CDPH, depending on where they are used, composite structural members could influence the results of the indoor air quality test, which references formaldehyde and a number of other VOCs. In addition, for projects pursuing I-13 Red List, ingredients requirements remain applicable, including those related to formaldehyde.” – LBC Materials Petal Handbook

With respect to composite or engineered structural wood, prioritizing products that meet applicable standards identified in APA Technical Note J330D will best-position projects for compliance with formaldehyde-related requirements within LBC. The Technical Note lists USA and Canadian production specifications for structural wood and compares the formaldehyde emissions to other international specifications and formaldehyde emissions thresholds for these products.”

Inherently Non-Emitting Substances

Products that are considered inherently non-emitting sources of VOCs and have no integral organic-based surface coatings, binders, or sealants, are not required to demonstrate compliance to CDPH limits on VOC emissions. These products include stone, ceramic, powder-coated metals, plated or anodized metal, glass, concrete, clay brick, certified organic fabrics and upholstery, and unfinished or untreated solid wood.

Approved Product Emissions Standards

CDPH Standard Method v1.1-2010

The California Department of Public Health’s (CDPH) Standard Method v1.1-2010 is an emissions testing and evaluation standard intended to be applied to any product with the potential to emit VOCs generally used within the envelope of an enclosed indoor environment that can be tested whole or by representative sample in environmental chambers. This method specifies target chemicals and their maximum allowable concentrations. In 2017, CDPH v1.2-2017 was issued, and is an accepted alternative to CDPH v1.1-2010 for the purposes of this LBC Imperative.

Evaluation of Products with Potential VOC Emissions

Interior building products with the potential to emit VOC and that are intended for installation within the building envelope (defined as interior of the wall vapor barrier and roof vapor barrier) must demonstrate emissions testing to the CDPH Standard Method v1.1-2010, or other ILFI-approved product emissions

Testing Standards (see Table 10-3) and comply with individual VOC Thresholds established in the Testing Standard.

Interior site-installed, wet-applied products (e.g., paints, coatings, adhesives and sealants) are also held to the CDPH emissions testing requirements of this Imperative, in addition to meeting VOC content limits as required by Imperative 13, Red List.

Approved Alternatives to CDPH Standard Method for VOC Emissions

The information below contains additional international testing standards and reference methods that ILFI has approved as comparable achievement to the CDPH v1.1-2010 / v1.2-2017 requirements and associated VOC emissions limits. All interior products with the potential to emit, including wet-applied products, that do not meet CDPH compliance must be third-party tested at an ISO 17025-certified laboratory by one of the following acceptable standards, and meet the VOC thresholds listed below. (Products manufactured in, having a final point of assembly in, and distributed within the Oceania region, defined as Australia, New Zealand, Melanesia, Micronesia, and Polynesia, may also use HH-005: Product Air Testing in Oceania.

These standards and protocols may include different testing methods, parameters, and chamber sizes, among other parameters, but are considered comparable to CDPH methods and VOC emissions limits for the requirements of this Imperative and for the purposes of the Living Building Challenge. However, interior products using these standards and thresholds must additionally comply with a maximum emission concentration of 10 µg/m³ for formaldehyde, as is required for CDPH compliance.

Table 1: Alternative Compliance for Interior Products

TESTING STANDARDS	VOC THRESHOLDS*
• EN 16516-1:2018 • ISO 16000-9	• AgBB (2015, 2018) (3-day and 28-day speciation)* • French VOC Regulation (2011) A+ Class • Agreed EU-LCI Values*

Table 2: Alternative Compliance for Furniture

TESTING STANDARDS	VOC THRESHOLDS*
• ANSI/BIFMA M7.1 for commercial furniture	• ANSI/BIFMA e3-2019 or e3-2014, section 7.6.3
• EN 16516-1:2018 • ISO 16000-9	• AgBB (2015, 2018)* • French VOC Regulation (2011) A+ Class • Agree EU-LCI Values (2019)*

*Must additionally comply with 10ug/m3 maximum allowable emissions for formaldehyde.

Conformant Certifications That Use CDPH as Testing Standard

CDPH-Conformant Certifications

The CDPH website maintains a list of certifications that conform to the CDPH Standard Method v1.2 (2017).

Certifications Conformant to Other Approved Emissions Standards

Products tested under an approved alternative to CDPH SM v1.1-2010 / v.1.2-2017 may use one of the standards listed below. Documentation must clearly state conformance to CDPH v1.1 or v1.2 VOC thresholds. Laboratories that conduct any emissions testing must be accredited under ISO 17025 for the test methods they use.

Accepted Alternative Standards to CDPH Conformant Certifications:

- Blue Angel (Der Blauer Engel) DE-UZ 113
  - For floor coverings, flooring underlays, thermal insulation, indoor wall paints, and varnishes, glazes and primers.
  - May be used for furniture only if maximum allowable concentrations allowed by ANSI/BIFMA e3-2014e Furniture Sustainability Standard, Section 7.6.3 are met.
- EMICODE EC1 and EMICODE EC1PLUS
- Finnish Emission Classification of Building Materials: M1
- Indoor Air Comfort GOLD

Other certifications or test reports may be submitted to declare.support@living-future.org for evaluation. Please provide a clear explanation of their conformance with Approved Product Emissions Standards.

HH-005: Product Air Testing in Oceania

HH-005: Product Air Testing in Oceania

Products manufactured in, having a final point of assembly in, and distributed within the Oceania region, defined as Australia, New Zealand, Melanesia, Micronesia, and Polynesia, may demonstrate compliance with the CDPH requirement of the Healthy Interior Environment Imperative by testing to ISO 16000, ISO 10580, or ASTM D5116. Products must demonstrate they are low emitting by providing a testing report from an approved certified lab that demonstrates the emission factor is equal to or less than:

- tVOCs= 450 µg/m³
- Formaldehyde =60 µg/m³

Projects may use products tested and certified under a program that conforms to the standards listed above such as:

- Emicode (Edition 18.04.2018)
- Blue Angel (Version 1.6, January 2018)

The following text applies only to LBC project teams, and not to manufacturers pursuing Declare.

This exception applies only to registered project teams in the Oceania region, and projects must document the following:

- Demonstrate compliance with required testing above
- Proof of advocacy to the manufacturer to offer CDPH or AgBB chamber testing for selected products to help build demand for these testing schemes.

I-14 Compliance: Wood Containing Products

Wood Sourcing

To fully align with the Responsible Sourcing Imperative within the Materials Petal of the Living Building Challenge, all wood containing products are required to confirm compliance with one of the following:

- FSC Chain of Custody Available *(documentation upload required for reference)*
  - According to the Forest Stewardship Council (FSC), FSC Chain of Custody is “a certification which traces the path of products from forests through the supply chain, verifying that FSC-certified material is identified or kept separated from non-certified material throughout the chain.”
  - REF: https://us.fsc.org/en-us/certification/chain-of-custody-certification
  - Manufacturers must submit a valid FSC Chain of Custody certificate and provide ILFI with the specific FSC license code (FSC-C######) associated with the valid FSC Chain of Custody

certificate. The FSC license code is to be used on a product label or when a promotional claim is used; the Declare label functions as a tool that a manufacturer could use as promotional claims regarding potential availability of FSC Chain of Custody products. Manufacturers should be prepared to additionally supply their proof of certification on their own product packaging and in customer invoices. Learn more about verifying that a company is FSC Certified.
    - Manufacturers can use their own individual code or that of the parent company, when materials are produced centrally, provided the contact information of the company is included.
- Salvaged Wood Content
    - Salvaged wood is defined as wood already extracted from the forest and used for some purpose. Down and dead trees are not considered salvaged.
- Low Risk Wood
    - Low risk is defined as a source country with a score of 80 or higher as reported on The Nature, Economy and People Connected tool, where the country has laws and a low rating for both the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and Protected Sites and Species Sub-categories, and laws in at least 13 additional Sub-categories, including one law in each of the five Categories.
    - Within the NEPCON tool, the laws assessed can be found by clicking on the country image on the map and downloading the Timber Legality Risk Assessment. Each Risk Assessment contains a summary table of the findings, which identifies the Legal Categories and Sub-categories assessed. An entry of N/A on the table means that the country does not have laws related to the Sub-category.
- One or more Responsible Sourcing Exceptions

Table 3 List of Countries that meet ILFI's Low Risk Wood Definition
(current as of October 2020)

LIST OF COUNTRIES THAT MEET ILFI'S LOW RISK WOOD DEFINITION	
Australia	Korea, South
Austria	Latvia
Belgium	Lithuania
Canada	New Zealand
Czech Republic	Norway
Denmark	Poland
Estonia	Portugal
Finland	Spain
France	Sweden
Germany	Switzerland
Ireland	United Kingdom
Japan	United States

If a wood containing product is unable to confirm compliance with one of the above, it will not be considered compliant with the Responsible Sourcing Imperative of the Living Building Challenge, and will be identified as such on the Declare label.

Embodied Carbon (Optional Reporting Field)

Embodied carbon reporting in Declare was introduced as a pilot program in 2019 and remains in pilot phase until further announcement. The following guidelines are for review and reference only. For manufacturers interested in learning more and disclosing their embodied carbon impacts when the program opens following the conclusion of the pilot phase, please contact the Declare Support team with this information at declare.support@living-future.org.

Embodied Carbon Reporting

Embodied carbon is now an optional reporting field for manufacturers in the Declare program. Embodied carbon and interpretations of environmental impact with this metric are meant to complement the ingredient transparency information that forms the basis of Declare. Manufacturers that do not have embodied carbon information to report, or that have chosen not to disclose this information, are not penalized with respect to declaration status or overall LBC compliance.

Embodied carbon data for building products in Declare come from publicly available Type III facility-specific or product-specific cradle-to-grave, or cradle-to-gate with options (which must include end-of-life, C1-C4) Environmental Product Declarations (EPDs) completed to a relevant Product Category Rule (PCR) that are published by a fabricator, product manufacturer or other declaration holders, or by ISO 14025 program operators that have completed the third-party verification and registration of the EPD, as defined in ISO 14025, ISO 14044, and ISO 21930 and/or EN 15804. The American Center for Life Cycle Assessment (ACLCA) maintains a list of active global ISO 14025 program operators: https://aclca.org/pcr/program-operators/

EPDs that are completed to cradle-to-gate scope (Modules A1-A3) only are considered non-compliant to Declare requirements for embodied carbon reporting at this time.

The Declare label reports the declared unit and the global warming potential (GWP) (expressed in units of kg CO2-eq) associated with the A1-A3 product stage module. Declared units reported on Declare labels do not take into account performance criteria or product functional equivalence considerations for the referenced baseline. The declared unit is obtained from the EPD and should be one of the following:

- an item, an assemblage of items, for example, 1 window (dimensions of items shall be specified);
- mass (kg or metric tonne), for example, 1000 kg or 1 ton of cement;
- length (m), for example, 1 m of pipe, 1 m of a beam (dimensions of elements shall be specified);
- area (square meter/sq m), for example, 1 sq m of wall elements, 1 sq m of roof elements (dimensions of elements shall be specified);
- volume (cubic meter/cu m), for example, 1 cu m of timber, 1 cu m of ready-mixed concrete.

If a different unit is declared, the EPD should also provide information on how to convert this unit into one of the above accepted formats; the converted unit will be displayed on the Declare label.

Project teams and other Declare label users should consult the EPD (linked to on the Declare database) for functional units (when available and reported) as the preferred basis for product EPD comparisons. Without options to report product function information on a Declare label, users are encouraged to project teams should consult other programs and materials for further information and guidance on making comparisons of products with similar functional units with cradle-to-grave impact information.

> [ISO 21930, section 7.1.3]: *"When the precise function of the product or scenarios at the construction works level is not stated, or is unknown, a declared unit may be used instead of the functional unit. The declared unit provides a reference by which product, material and energy flows (input and output data) of the information module of a construction product's LCA results and any other information are normalized to produce data expressed on a common basis."*

For Declare products with multiple final assembly locations, an asterisk denotes the locations for which the embodied carbon data (that meet the above reporting requirements for Declare) is valid.

Additional information that will be listed on the Declare database in the product description include:

- Impact assessment tool/method used
- Link to the published EPD (Link will direct to the EC3 database if the EPD has been uploaded there)

Declare Embodied Carbon Indicator Guide

A graphic indicator will appear next to the product's global warming potential (GWP) to identify its cradle-to-gate embodied carbon impact relative to the product type category upper limit as proposed by the Embodied Carbon in Construction Calculator, an open-source EPD database and building planner tool that enables a performance-based approach to evaluating embodied carbon reductions in design, procurement, and construction. The EC3 tool holds a growing repository of product EPDs, and Building Transparency and the Carbon Leadership Forum have proposed methodologies to account for uncertainty in data quality and facilitate comparability of EPD data in accordance with ISO and EN standards. If a product EPD is published in the EC3 database, ILFI will include this link to the EPD on the Declare database to facilitate EC3's product-type comparisons, where converted units and relevant uncertainty factors in the data can be viewed in context and alongside other EPDs in the same product-type category.

 = above product type baseline

 = below product type baseline

 = within product type baseline range

 = no product type baseline calculated or available

ILFI will use the product type baseline that has been calculated at the time of the Declare label application review. If a manufacturer renews the Declare label for its product, ILFI will reconfirm the continued validity of all associated EPD and PCR submissions and reevaluate this performance to the EC3-determined product type baseline at that time.

If the product EPD or its product category have not yet been included in EC3 and its comparison methodologies, manufacturers may request to report the GWP and declared unit in the product EPD, and the product Declare label will have a grey bar as its indicator, as no product type baseline is available. Additionally, cradle-to-gate EPDs with optional modules will also have a grey bar as the indicator, as this type of EPD is not suitable for comparison.
ILFI will review and approve additional baseline calculations and benchmarks on an ongoing basis. Questions or requests for consideration of additional qualifying databases and embodied carbon benchmarks may be submitted to declare.support@living-future.org for consideration. Refer to the LBC 4.0 Energy Petal Handbook in the ILFI Member Dashboard for the latest guidance and reference to approved calculators and product type baselines.

Product Type Categories

Products are considered to be in the same product type category for comparison purposes if their third-party verified EPDs follow the same Product Category Rule (PCR) that conforms to the requirements of comparability of ISO 21930 and ISO 14025.

> [ISO 21930, section 6.3]: *"The product group covered by a sub-category PCR shall be described unambiguously. The definition may consider product functionality (e.g. conveyance of materials through pipes), typical production processes (e.g. mining or oil refinery) or applications (e.g. for use in cold climates). If there is potential ambiguity in the product sub-category, the description shall also state which products are not covered by the sub-category PCR."*

Declare labels will reference product type baselines (defined as the 80% upper limit GWP of the material category) and material categories of the EC3 database when available and applicable. **As of January 2021, the product categories represented in EC3 include:**

- Structure: Concrete, Steel, Wood
- Enclosure: Aluminum, Glass Panes, Insulation, Gypsum Wall Board
- Finishes: Carpet, Ceiling Panels

Additional Product Type Baselines Not Currently Represented

For product types or functions where the EC3 calculator has not determined an embodied carbon baseline, industry representatives and project teams can submit a proposed product baseline, defined by one of the following:

- ILFI-approved baseline tool or methodology
- Proposed by the project team or industry representative, based on a review of comparable products in the same material category and represent common supply chain and manufacturing data, and

declared unit for the product type.* This does not include industry-wide EPDs or other broad categorical studies of manufacturing impact.

**Note that additional product baselines must be submitted to ILFI for approval, and must disclose the baseline methodology, data source(s), data uncertainty and statistical significance of the study.*

ILFI will periodically review the baselines referenced within Declare labels and determine whether there more stringent product baselines are required to continue pushing various building product industries to work toward mitigating product embodied carbon.

Embodied Carbon Notes for Manufacturers

For Declare manufacturers: All EPDs should meet the protocols for scope, preparation and external third-party verification as outlined in ISO 14025 or ISO 21930, and EN 15804. All EPDs referenced should be as current as possible, and at a minimum shall not expire for one year (i.e. before the expiration date of the Declare label). With respect to data quality, underlying LCA data must be sourced from within the last ten years prior to the publishing of the EPD, and utilize specific data from the country or countries/regions of actual production where possible. Manufacturers should continue to move toward the use of supply chain-specific upstream data to inform LCA and EPD development. ILFI continues to contribute to discussions of best practices in data quality measurement and reporting.

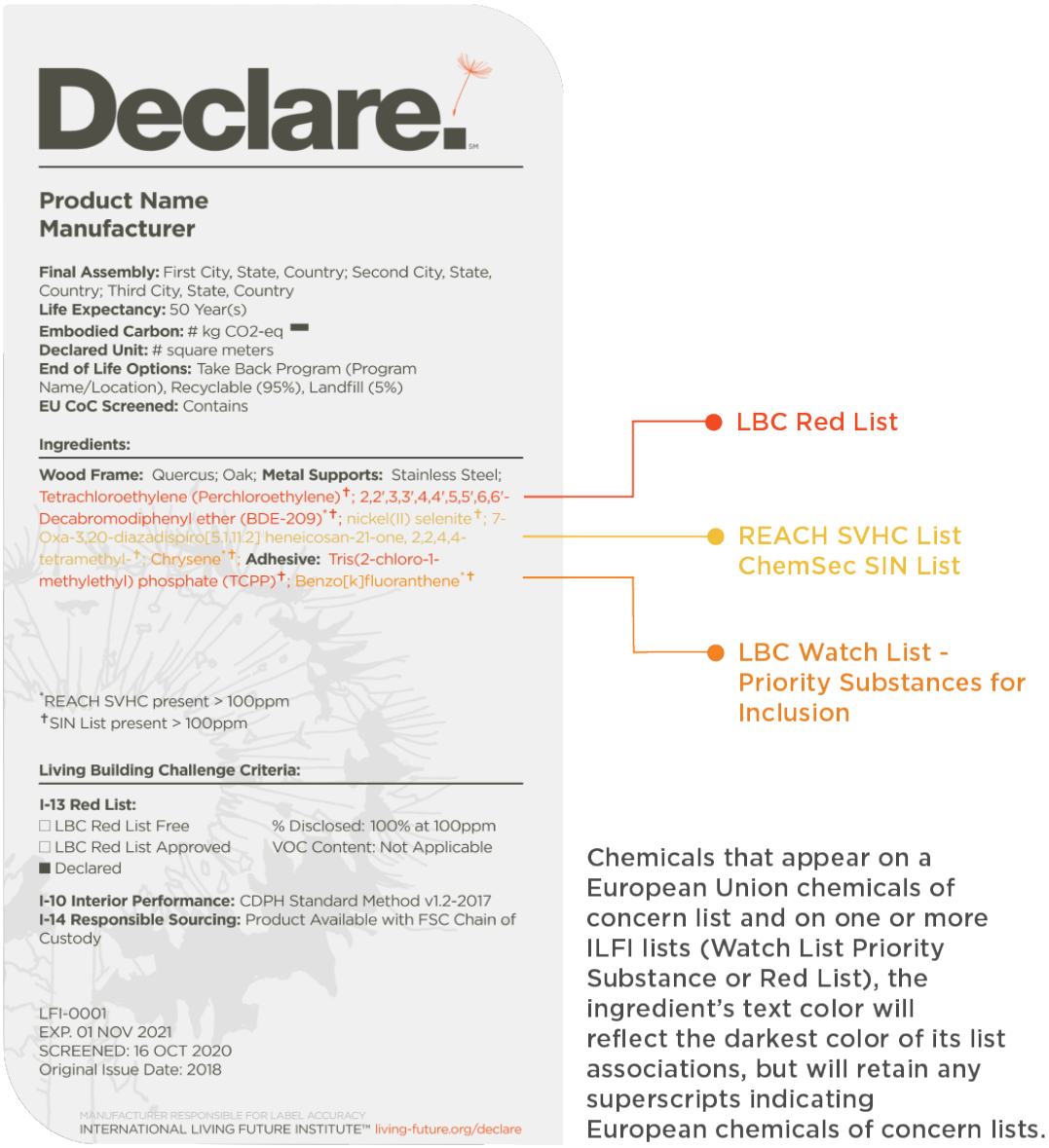
For LPC manufacturers: Manufacturers that have completed a third-party verified LCA through the Living Product Challenge and either do or do not have a third-party verified EPD will be able to include embodied carbon on the product's Declare label, but without a baseline reference indicator because the data are calculated under different parameters and should not be compared with EPD-reported impact data. Products that do have both LCA and EPD data will have their EPD figures reported on both Declare and LPC labels for data consistency if the product manufacturer requests to include environmental impact data on both program label disclosures.

EU Chemicals of Concern Screening (Optional)

To support manufacturers that produce and/or import their products into the European Union market, ILFI offers an optional screening service against the EU REACH SVHC Candidate List and the ChemSec SIN List. This screening aligns with Declare's 100 ppm (.01%) reporting threshold of substances, highlighting substances on these lists if they appear on the Declare label as part of 100ppm ingredient disclosure. Note that these organizations and regulatory bodies may have additional specifications and regulate some substances at different thresholds. Therefore, this screening service is designed to be informative but does not represent regulatory compliance.

If chemicals of concern included on either of those lists do not appear on the Declare label at 100 ppm, the label will read **"EU Chemicals of Concern: Does Not Contain"**.

If any do appear on the Declare label, the label will read **“EU Chemicals of Concern: Contains”**. The label will flag the substance(s) in yellow text on the ingredients list and include a superscript ‘*’ or ‘†’ symbol with an accompanying footnote identifying which list is flagged. If these substances appear on either on these lists and on one or more ILFI lists (Watch List Priority Substance or Red List), the ingredient’s text color will reflect the darkest color of its list associations, but will retain any superscripts indicating European chemicals of concern lists. On the Declare database, the ingredients list table will reflect this information through the color of the substance and will indicate on which list(s) that CASRN is found.



Chemicals that appear on a European Union chemicals of concern list and on one or more ILFI lists (Watch List Priority Substance or Red List), the ingredient’s text color will reflect the darkest color of its list associations, but will retain any superscripts indicating European chemicals of concern lists.

INGREDIENT LIST

COMPONENT	INGREDIENT NAME	CAS#	%
Wood Frame	Quercus; Oak	No RN	65%
Metal Supports	Stainless Steel	12671-80-6	16.5%
	Tetrachloroethylene (Perchloroethylene) ChemSec SIN List	127-18-4	6%
	2,2',3,3',4,4',5,5',6,6'-Decabromodiphenyl ether (BDE-209) EU REACH SVHC Candidate List - ChemSec SIN List	1163-19-5	4.5%
	nickel(II) selenite ChemSec SIN List	10101-96-9	1.8%
	7-Oxa-3,20-diazadispiro[5.1.11.2] heneicosan-21-one, 2,2,4,4-tetramethyl- ChemSec SIN List	64338-16-5	0.6%
	Chrysene EU REACH SVHC Candidate List - ChemSec SIN List	218-01-9	0.6%
Adhesive	Tris(2-chloro-1-methylethyl) phosphate (TCPP) ChemSec SIN List	13674-84-5	4.25%
	Benzo[k]fluoranthene EU REACH SVHC Candidate List - ChemSec SIN List	207-08-9	0.75%

The REACH SVHC Candidate List *represents substances deemed Substances of Very High Concern (SVHCs) by the European Chemicals Agency (ECHA) due to meeting several criteria related to hazard and toxicity, described in REACH Article 57. When ECHA identifies a substance as an SVHC and includes it in the Candidate List, this can trigger certain legal obligations for the importers, producers and suppliers of an article that contains such a substance. ECHA is an official agency of the European Union tasked with implementation of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulation.*

The ChemSec SIN (Substitute It Now) *List is a list of hazardous chemicals that are used in a wide variety of articles, products and manufacturing processes around the globe. The SIN abbreviation – Substitute It Now – implies that these chemicals should be removed as soon as possible as they pose a threat to human health and the environment. The SIN List is developed by the non-profit ChemSec in close collaboration with scientists and technical experts, as well as an advisory committee of leading environmental, health, consumer organisations.*

PROGRAM CLARIFICATIONS

Exceptions and Declaration Status

The use of one or more Declare Program Exceptions by a manufacturer will impact a product's Declaration Status and cannot result in a status of "LBC Red List Free". Additionally, no products that disclose less than 99% of ingredients by weight may participate in the Declare program due to the limits of the Proprietary Ingredients Exception.

LBC Red List Free: An "LBC Red List Free" Declare label contains no LBC Red List ingredients, discloses 100% of contents by weight and makes use of no Declare Program Exceptions.

LBC Red List Approved: An "LBC Red List Approved" label discloses between 99% and 100% of contents by weight. The specific "% disclosed" may be found on the label to the right of the Declaration Status under I-13 Red List. "LBC Red List Approved" labels may make use of any LBC Temporary Exceptions alone or in combination, but they may not contain any Red List ingredients that are not covered by an existing Exception.

For a somewhat complex example, a structural composite wood product that contains an electronic component, could obtain a status of "LBC Red List Approved" if:

- it discloses 99%+ of contents,
- demonstrates that it complies with the Formaldehyde Exception requirements, and
- demonstrates RoHS compliance to use the Small Electrical Components Exception
- *and* it contains no Red List ingredients that are not covered by a Declare Program Exception.

Declared: A "Declared" label discloses 100% of contents by weight and necessarily includes Red List ingredients that are not covered by an existing Exception. It may also incorporate the use of any combination of Declare Program Exceptions, except for the Proprietary Ingredients Exception as this would result in disclosure of less than 100% of contents.

The use of the Proprietary Ingredients Exception (and therefore disclosure of less than 100%) in combination with the presence of any Red List ingredients not covered by a Declare Program Exception will prevent a product's achievement of a Declare label until either the proprietary content, or the Red List ingredients, are removed.

LBC Red List and Annual Updates

How Annual LBC Red List Changes Affect Product Manufacturers

An LBC Red List annual update is published in January of each calendar year, and becomes effective for all products on the Declare submission platform and Declare database on February 1st. The only CASRNs that

can be added to the LBC Red List with an annual update must have been designated as Priority for Red List Inclusion in the Red List and Watch List CASRN Guide for at least 12 months prior.

Declare labels are valid for one year (12 months) from the time of issuance. An active Declare label with a status of LBC Red List Free, LBC Red List Approved, or LBC Compliant at the time of specification is sufficient documentation of product compliance with I13 Red List. This remains true even if a constituent chemical in the product is added to the Red List prior to the label's expiration date. ILFI will encourage project teams to download the Declare label information at the time of specification.

Products in Declare will be evaluated against the LBC Red List version that is active when a manufacturer submits the product for its annual label renewal. At that time, a product with a Declare status of LBC Red List Free, LBC Red List Approved, or LBC Compliant may subsequently receive Declared status because a constituent chemical was subsequently added to the Red List and the product formulation wasn't changed. ILFI will inform project teams that if they did not document the compliance status of the Declare label at the time of specification, they may cross-reference the Red List ingredient identified on the renewed Declare label with the contents of the Red List at the time of project registration, to demonstrate compliance.

Please visit the Red List page on the ILFI website for additional information regarding annual updates to the Red List and to download the currently active 2022 LBC Red List CASRN Guide.

Recycled Content

Recycled content requires disclosure of all known ingredients in the recycled content feedstock. At minimum, the primary recycled ingredient must be reported. Unknown residuals in recycled content are considered unintentional trace amounts that may be present in the product, including potential HFRs. Thorough reporting of all ingredients, including pre-consumer waste generated by the manufacturer, is required.

Pre-consumer recycled content generated by the product manufacturer must be reported with all intentionally added ingredients at or above 100ppm. Recycled content from within the manufacturer's own feedstock may not use the intentional trace amounts clarification.

Small Electrical Components

For purposes of Red List compliance, components meeting the definition of a small electrical component may be present in a product without CAS Registry Number reporting through use of exception RL-002b Small Electrical Components. A Small Electrical Component (SEC) is defined as any discrete, assembled component with any number of terminals, leads, or electromechanical components that is shipped as a unit from a supplier to the final product manufacturer. These terminals, leads and electromechanical components can connect to create an electronic circuit to perform a particular function, or be integrated within a package, and may be considered part of the main SEC. To be considered an SEC, a component must be fully sealed and enclosed within the final product. SECs may be active, passive or electromechanical.

Complex electrical or data products that are made up entirely of SECs are also considered small electrical components. Large electrical equipment, such as a photovoltaic (PV) panel, may however be only partially composed of small electrical components.

When a number of small electrical components are within a housing, the equipment housing and other major components, such as glass, are subject to disclosure and Red List chemical compliance regardless of whether they are a large or small piece of equipment.

Associated Materials Included in Small Electrical Components
The following section identifies materials associated with Small Electrical Components that are considered part of an SEC:

- Wiring that is rated 250V or less working voltage, inclusive of terminals, leads, electromechanical components and associated jacketing, if included with the component as supplied to the final product manufacturer (i.e., not manufacturer-installed)
- Supplier modifications (i.e. not manufacturer-implemented) to wiring such as pigtails

Associated Materials Not Included in Small Electrical Components
The following section identifies materials associated with Small Electrical Components that are not considered SEC and which must be inventoried and screened per typical Red List requirements:

- Casing and housing materials for the SEC, including but not limited to enclosures for large equipment containing multiple SEC’s and enclosures for equipment such as electrical panel boards, fire alarm controls, and other electronics,
- Wiring that is rated greater than 250V working voltage, inclusive of terminals, leads, electromechanical components and associated jacketing
- Any wiring used to distribute building power or communications/data
- Any other manufacturer-installed materials, or ingredients, or modifications to SECs
- Any electrical components that are not compliant to EU RoHS 3 (Directive 2015/863)

Unintentional Trace Amounts

There are instances when a Red List ingredient is present in a product because it naturally occurs in the product’s raw materials or was unintentionally added through certain manufacturing or reclamation processes. Therefore, as a general rule, products should have no “intentionally added” Red List ingredients. Intentionally added ingredients are defined as each discrete chemical, polymer, metal, bio-based material, or other substance added to the product by the manufacturer or suppliers that exists in the product as delivered for final use. Although trace amounts of unintentional ingredients are allowed, a full list of all intentionally added ingredients is still required. The following products are known to fall under this Clarification:

Materials with Naturally Occurring Trace Amounts

- Clay

- Minerals
- Wood
- Gypsum

Product with Unintentional Trace Amounts from Manufacturing

- Recycled steel
- Galvanized metal
- Portland cement
- Fly ash
- Magnesium oxide board
- Paint

DECLARE PROGRAM EXCEPTIONS

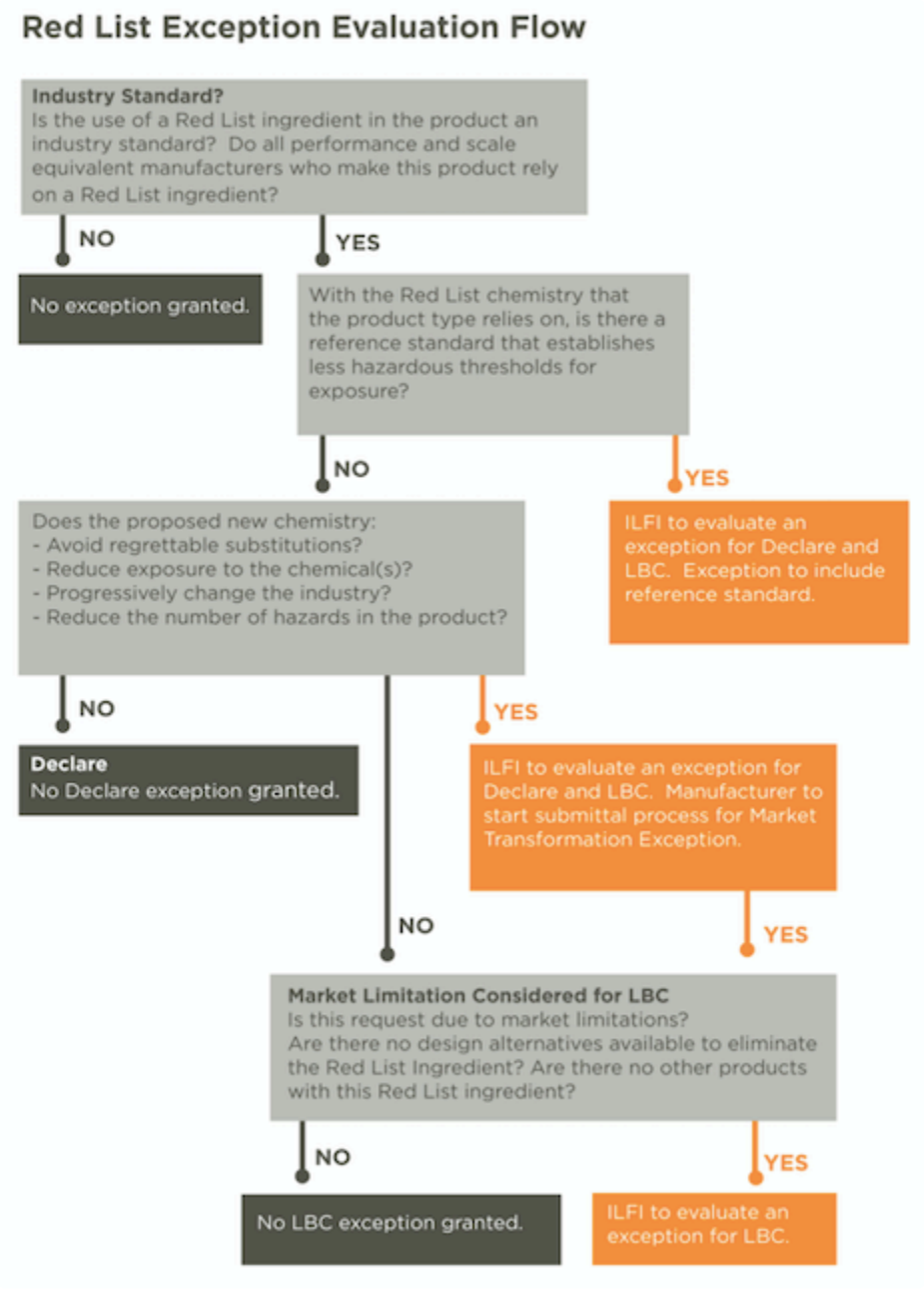
EXCEPTION OVERVIEW

Although the aim of Declare and the Living Building Challenge is to move the building industry toward the complete phase-out of all chemicals on the Red List, the Living Building Challenge recognizes that there are current limitations in the building materials marketplace. The following Declare Program Exceptions are applicable to Declare manufacturers and have been granted by the Living Building Challenge to reflect current market limitations in the industry to develop alternatives. Declare Program Exceptions are temporary and will be removed if new products and formulations become available. If a material contains a Red List item but has been granted a temporary Exception, the Red List chemical will still be listed on the ingredient label in red lettering. A footnote will be added to identify the specific Exception. Exceptions listed on the label are valid for one year.

In order to uphold Declare as the guiding light in product transparency, exceptions have been updated in Declare 2.0 to hold manufacturers to a more stringent standard than LBC project teams. All exceptions have been re-vetted; some Declare 1.0 exceptions have been retired, and others have been updated to reflect changes in the products industry. All active labels listing previous exceptions are valid until the time of renewal.

EXCEPTION EVALUATION PROCESS

All Declare Exceptions will be evaluated on a defined basis using the LBC Red List Imperative Exception evaluation process. Each exception request will follow the flow chart and may not skip any steps. All existing Declare Program Exceptions have been vetted using, and all future exception requests will be held to, this process.



RL-002b Small Electrical Components

It is not necessary to seek ingredients information or ascertain Red List compliance for components meeting the definition of small electrical components as contained in the glossary and further detailed under Small Electrical Components clarifications. Instead, these products must be compliant with the regulations of the European Union’s Restriction of the Use of Certain Hazardous Substances (RoHS) Directive 3, 2015, which establishes the following maximum concentration values for toxic chemicals tolerated by weight in homogeneous materials:

- Lead (0.1%)
- Hexavalent chromium (0.1%)
- Bis(2-Ethylhexyl) phthalate (DEHP) (0.1%)

- Butyl benzyl phthalate (BBP) (0.1%)
- Cadmium (0.1%)
- Dibutyl phthalate (BBP) (0.1%)
- Diisobutyl phthalate (DIBP) (0.1%)
- Mercury (0.1%)
- Polybrominated biphenyls (PBB) (0.1%)
- Polybrominated diphenyl ethers (PBDE) (0.1%)

Products meeting the definition of a Small Electrical Component can demonstrate compliance with RoHS by either a RoHS label or CE Mark.

Likewise, it is not necessary to seek ingredients information or ascertain Red List compliance for complex electrical or data products that are made up entirely of small electrical components.

Products in the Declare program that contain Small Electrical Components must comply with the requirements of this Exception and use a Materials and Substances disclosure in order to clearly identify each component using this requirement. Declare manufacturers must also state in the product description whether a take-back mechanism for electrical components has been established and is available.

Date added: May 2013
Date updated: April 2022
Formerly named: I10-E2 5/2013 Small Electrical Components

RL-004b Proprietary Ingredients

Due to market realities, manufacturers are allowed to withhold one or more ingredients if they add up to less than or equal to 1% of the product by both weight and volume. The manufacturer must confirm that the proprietary ingredients do not contain any Red List chemicals.

Date added: September 2012
Date updated: January 2020
Formerly named: I10-E4 9/2012 Proprietary Ingredients <1%

RL-008 Market Transformation

A product chemistry, formulation, or component using a Red List ingredient may be used in a product when it replaces one or more Red List ingredients and addresses regrettable substitutions.

Manufacturers must provide a detailed analysis to demonstrate they have created a new chemistry that does not rely on regrettable substitutions and eliminates the need for at least one Red List ingredient in the product.

The detailed analysis should be written by a chemist, toxicologist, knowledgeable product engineer, or

qualified member of the manufacturer's team, and show how the product eliminates one or more Red List ingredients. ILFI will engage with a third party to confirm accuracy of provided analysis.

Use of this exception is only approved through the formal Declare process and must be listed on an active Declare label to be considered valid.

Date added: January 2020
Date updated: July 2020

RL-009b Formaldehyde

This exception outlines compliance pathways for formaldehyde-containing products and materials. The General Pathway is available to all formaldehyde-containing products. Project teams using the following specific materials types and/or applications may choose to use an applicable Alternative Compliance Pathway:

- Composite Wood Materials (Non-Structural)
- Composite Wood Members (Structural)
- Foam Board Insulation (Phenol Formaldehyde-only)

Manufacturers and project teams using this Exception, which only addresses formaldehyde, should be aware that compliance with I10 Healthy Interior Performance requires VOC emissions testing compliance for a larger suite of chemicals.

GENERAL PATHWAY (Available to all products):

Manufacturers of formaldehyde-containing products must demonstrate that emissions levels in the final product comply with the thresholds determined by one of the approved emissions standards outlined in the table below. Conformant product certifications that use one of the standards in the table are listed in the Health & Happiness Petal Handbooks, under CDPH Clarifications.

Compliant Standards and Emissions Thresholds

Testing Standards	Formaldehyde Thresholds*
• CDPH v1.1-2010 • CDPH v1.2-2017	• CDPH v1.1-2010 • CDPH v1.2-2017
• EN 16516-1:2018 • ISO 16000-9	• AgBB (2015, 2018) (3-day and 28-day speciation)* • French VOC Regulation (2011) A+ Class • Agreed EU-LCI Values*
Commercial Furniture ANSI/BIFMA M7.1 for commercial furniture	• ANSI/BIFMA e3-2019 or e3-2014, section 7.6.3

*Must additionally comply with 10ug/m3 maximum allowable emissions for formaldehyde.

Products manufactured in the region defined as Oceania may use the testing standards and formaldehyde limits identified in exception HH-005 Product Air Quality Testing in Oceania (I08-E10 in LBC 3.1) to

demonstrate compliance with the General pathway.

ALTERNATIVE COMPLIANCE PATHWAYS:

Composite Wood Materials (Non-Structural):

Interior composite wood materials, defined as all particleboard, medium density fiberboard, and hardwood plywood, may contain formaldehyde, if labeled by a Third-Party Certifier (TPC) or declared by the manufacturer with one of the following standards, to demonstrate compliance with maximum allowable emissions of formaldehyde for each composite wood product type:

- California Air Resources Board (CARB) Airborne Toxic Control Measures (ATCM) Phase II
- Toxic Substances Control Act (TSCA) Title VI
- E1 or E0 classification formaldehyde limit when tested to EN 717-1
- Super E0, E0 and E1 classification when tested by an accredited laboratory to the relevant Australian and New Zealand Standards (AS/NZS); E1 particleboard is not included in this exception.

These products can alternatively use the approved testing standards outlined in the Compliant Standards and Emissions Thresholds table above, to demonstrate that the product does not emit greater than the following CARB/TSCA Title VI emission standards for formaldehyde:

- Hardwood plywood – 0.05 parts per million (ppm)
- Particleboard – 0.09 ppm
- MDF – 0.11 ppm
- Thin MDF – 0.13 ppm

As a final alternative, manufacturers may also submit documentation from an EPA TSCA Title VI TPC or CARB demonstrating that the product in question qualifies for reduced testing and/or third-party certification exemption if the product uses NAF or ULEF resins. Composite wood products and finished goods using urea-formaldehyde or melamine formaldehyde resins are not eligible for the NAF or ULEF resin exemption.

Composite Wood Materials (Structural):

Structural composite wood members, including sheet goods, may contain formaldehyde in NAF or ULEF moisture-resistant adhesives if they meet APA The Engineered Wood Association (APA) definitions of, and applicable construction standards for, “engineered wood products” detailed in APA Technical Note J330D, published July 2018. Note J330D lists USA and Canadian production specifications for structural wood, and compares the formaldehyde emissions to other international specifications and formaldehyde emissions thresholds for these products, which are additionally accepted as demonstrating compliance for the purposes of this Exception.

Alternatively, manufacturers of structural composite wood members may demonstrate compliance to EN 717-1 E1 emissions limits (<0.124 mg/cu m (milligrams per cubic meter) formaldehyde). In Oceania, super E0, E0 and E1 classification when tested by an accredited laboratory to the relevant Australian and New Zealand Standards are acceptable.

Foam Board Insulation:

Foam board insulation may contain phenol formaldehyde polymers if the manufacturer or supplier can demonstrate compliant levels of free/residual formaldehyde by testing the polymer in accordance with one of the following standards and document that test results were below the CARB/TSCA Title VI formaldehyde limits (content or emissions):

- ISO 11402 (Formaldehyde content)
- EN 717-1 (Formaldehyde emissions), or
- one of the Approved Product Emissions Standards/Testing Methods or an equivalent standard

Foam insulation is subject to all other Red List requirements.

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Date added: January 2020
Date updated: January 2021
Relevant superseded and retired exceptions:
I10-E6 9/2013 Glass-Mat Gypsum Sheathing
I10-E9 3/2013 Phenol Formaldehyde in Mineral Wool Insulation
I10-E10 8/2008 Structural Composite Wood Members
I10-E11 1/2009 Composite Wood Sheet Goods
I10-E22 6/2016 Formaldehyde in Systems Furniture Laminate
I10-E23 5/2017 Phenol Formaldehyde Polymers in Foam Board Insulation

RL-011 Lead (added)

Added lead is allowed in plumbing applications where products demonstrate compliance with the US federal definition of “lead-free” as defined in S. 3874 (111th): Reduction of Lead in Drinking Water Act, effective January 1, 2014.

Date added: August 2011
Date updated: January 2020
Formerly named: I10-E17 8/2011 Plumbing

RL-023b PFAS and PVC in Plenum Wire and Cable

This exception applies to electrical wires and cables and optical fiber cables that are insulated, jacketed, or both, and that are subject to fire codes NFPA 90A, NFPA 262 or UL 910, and/or proposed for use where applicable building codes require the use of fluorinated ethylene propylene (FEP) or polyvinyl chloride (PVC) compounds in wire and cable sheathing. Examples include wires and cables installed in ducts, plenums, and other spaces used to transport environmental air without enclosed raceways.

When used to meet national and local fire codes that require wires and cables in air-handling spaces to be insulated and jacketed with materials that burn slowly and emit low amounts of smoke, that application of FEP and PVC is considered an “essential use” of these Red List materials. To comply with the LBC Materials Petal, project teams must make every effort to design the project in a way that avoids the need for FEP and PVC coatings, for example by designing buildings with open ceilings and no plenums; or running cable in metal conduit, sealed wiring chases, or cellular raceways of concrete decking.

If highly flame-resistant cable is still needed, it must also meet the requirements described below.

For FEP-based wires and cables:

- Product has published and publicly available ingredient transparency for 100% of ingredients at 100 ppm (0.01%) with no proprietary ingredients allowed.
- Process chemicals (e.g., solvents, surfactants, emulsifiers, dispersants, inhibitors, additives) used during the FEP copolymerization process must be fully disclosed.
- Company discloses policy for minimizing emissions and worker exposure to PFAS process chemicals.
- Product is compliant with RoHS III or current standard.

Product has undergone analytical testing showing that:

- Residual monomer levels in the FEP copolymer do not exceed 100 ppm in either the copolymer or the final material/product.
- Residual Red List process chemical levels in the FEP copolymer do not exceed 100 ppm.

For PVC-based wire and cables:

- Product has published and publicly available ingredient transparency for 100% of ingredients at 100 ppm (0.01%) with no proprietary ingredients allowed.
- All plasticizers have full chemical hazard assessments and are rated GreenScreen Benchmark 2 or safer.
- All flame retardants have full chemical hazard assessments and are rated GreenScreen Benchmark 2 or safer.
- Product is compliant with RoHS III or current standard.
- Manufacturer has followed best practices for PVC sourcing, production, and emissions control per the GreenStar Best Practice Guidelines for PVC

Product has undergone analytical testing showing that:

- The residual vinyl chloride monomer content is less than 1 ppm
- No lead, cadmium, mercury, or hexavalent chromium are present in the product above 1 ppm
- The combined level of the following phthalate plasticizers cannot be above 100 ppm: diethylhexyl phthalate (DEHP), benzylbutyl phthalate (BBP), diethylbutyl phthalate (DBP), diisobutyl phthalate (DIBP)

Documentation:

For FEP and PVC cables:

- A detailed design narrative explaining the design process and considerations devoted to to maximizing the use of Red List free cable products
- Applicable codes requiring the use of FEP or PVC
- Publicly available list documenting all ingredients down to 100 ppm (0.01%) with Red List chemicals flagged
- Documentation of RoHS III compliance

Additional for FEP cables:

- A letter from the manufacturer disclosing all process chemicals used for the FEP copolymerization with Red List chemicals flagged
- Company policy related to minimization of PFAS emissions and exposure
- Analytical test data proving that the residual FEP monomers and Red List process chemicals identified are below the required thresholds

Additional for PVC cables:

- Affidavit stating that the best practices have been followed for PVC sourcing, production, and emissions control – align with GreenStar Best Practice Guidelines for PVC
- Chemical Hazard Assessment for each plasticizer used showing that they are rated GreenScreen Benchmark 2 or safer
- Chemical Hazard Assessment for each flame retardant used showing that they are rated GreenScreen Benchmark 2 or safer
- Analytical test data showing that the vinyl chloride monomer, lead, cadmium, mercury, hexavalent chromium, DEHP, BBP, DBP, DIBP, are below the required thresholds

CREATE AND MAINTAIN A DECLARE LABEL

3E Exchange (formally Toxnot) and Declare

Starting in 2018, ILFI partnered with Toxnot, a technology partner with a focus on product transparency and hazards screening. **In September 2023, Toxnot formally became 3E Exchange**. 3E Exchange operates a data management platform that aligns with the needs of Declare manufacturers and allows ILFI to better scale the Declare program, while easing the burden of technology management.

3E Exchange is an integrated software platform to streamline chemical transparency for products. Through 3E Exchange, it's easy to upload the data you need from an ERP/PLM or excel sheet and pull chemical content information from suppliers using customizable surveys. Use regulatory list data to ensure compliance with regulations and hazard data to optimize your product chemistry. Report out using the product transparency standards, such as Declare and HPD. 3E Exchange increases operational efficiency around chemical transparency efforts, enabling manufactures to find better, safer materials for their products. 3E Exchange also powers the Declare label submission process. Through ILFI Corporate Membership, each manufacturer receives access to create, submit, and maintain Declare labels. This access can be seamlessly integrated with the rest of 3E Exchange capabilities if a manufacturer chooses to upgrade.

3E Exchange manages the platform and supports Declare customers' IT needs; ILFI manages the Declare program, sets the technical standard, and provides customer service and support related to program requirements.

For 3E Exchange inquiries, contact the 3E Exchange team at support@3eco.com.

6 Simple Steps to Declare

1. **Establish ILFI Membership:** Go to living-future.org/membership, select "Corporate Membership" and pay the annual corporate membership fee.
2. **Connect your ILFI Membership and 3E Exchange (formerly Toxnot) Account:** Visit exchange.3eco.com and follow these instructions.
3. **Create Product Records and Declare Labels:**
    a. In exchange.3eco.com, enter your Bill of Materials (BOM) by importing a CSV file, or by manually inputting all product ingredients, with accurate CASRN's.
    b. Create a draft Declare label by opening a product record from your library and selecting Report > Declare Template > Preview
    c. Submit label to ILFI:
        i. Select "Share for Feedback" if you seek ILFI staff feedback before submitting for approval.
        ii. Select "Submit for Approval" when ready to begin the formal review process, and to submit payment.

4. **Select a Review Timeline:**
    a. Standard Review: ILFI's standard review time for a Declare label is seven (7) business days, during which we will respond with any feedback, or confirmation that the label is ready to publish. Review times may be longer if the manufacturer requests technical support or selects the "Share for Feedback" option.
    b. Rush Review: A Declare label may be reviewed within 1-2 business days upon request for an additional rush fee of $500.00 USD per label.
        i. Rush requests must be initiated with, and approved by ILFI, by contacting declare.support@living-future.org at which time we will walk you through the necessary steps to ensure prompt service.
        ii. Rush Fees include up to 120 minutes of ILFI staff support, during ILFI's normal business hours, for the expedited review and/or necessary technical assistance.
5. **Payment:** Enter any coupon codes and/or use a credit card to remit the total amount due, including rush fees, if required. Invoices may be requested from declare.support@living-future.org; however, please note that final review of your label(s) will only begin once full payment is received.
6. **Label Approval:** Upon completion of ILFI's review, manufacturers must approve their labels before they will be published.
    a. When you receive notification that your label is ready, do a careful and final review of the draft label in exchange.3eco.com
    b. Once approved, ILFI will publish the label to the public-facing Declare database and provide manufacturers with a copy.
    c. Note that any changes requested after publishing are subject to a label redraft fee.

Program Fees

Declare 2.0 has modified pricing tiers and fees to incentivize scaling. The applicable pricing tier is determined by the number of active labels a company* holds.

Manufacturers that are based in New Zealand should reach out to declare.support@living-future.org for the New Zealand fee schedule, while manufacturers that are based in Australia should consult with the Living Future Institute Australia for the Australia fee schedule.

New Labels:
1-9 Labels: $1,100 USD/label
10-24 Labels: $900 USD/label
25+ Labels: $600 USD/label

The Declare new label fee corresponds with each label. A single label covers a product, or product family, and all final assembly locations associated with that product or product family. See the Ingredient Information Reported section for more information regarding product and label scope.

Renewals:
1-9 Labels: $900 USD/label
10-24 Labels: $750 USD/label

25+ Labels: $500 USD/label

As an example, if you choose to purchase 10 Declare labels, the first 9 labels will be priced at $1,100 USD/label, and the 10th will be priced at $900 USD. The total will amount to $10,800 USD. When you renew the subsequent year, if you still possess 10 active labels, the subsequent renewal fee for each label will be $750 USD/label, or a total of $7,500 USD.

The Institute does not review applications or draft labels before the product application is formally submitted and all fees are paid.

Once a label is submitted and paid for, there are no refunds.

Interested in expanding your Declare portfolio to 50+ labels? Please reach out to declare.support@living-future.org for more information around reduced pricing for scaled portfolios.

*_A company is defined as the brand name listed on the Declare label and any claimed subsidiaries. ILFI will assume labels submitted via an individual's account in Toxnot belong to a unique company and are therefore subject to individual pricing unless someone reaches out prior to submission to state relation to an existing Declare company and a request to combine pricing is made. In these cases, an invoice will be required for payment._

Renewals

The Declare label license is valid for a 12-month period. Between 60 days prior to and 30 days after the label's expiration date, the label will be considered "Eligible for Renewal". Products will be identified as such on 3E Exchange (formerly Toxnot), and may be submitted for renewal during this period.

To renew your Declare label, visit 3E Exchange and select the product or products you wish to renew from your "Publications" library. Products that are not renewed within the 90-day window referenced above will be required to pay the full label fees as if it was a new label.

Unpublishing of Expired Labels

ILFI sends notifications to manufacturers (to the owner of the product submissions in 3E Exchange (formerly Toxnot)) about the renewal timeline of their label(s) at the following times:

- 60 days prior to the expiration date
- 30 days prior to the expiration date
- On the expiration date

The manufacturer will be made aware in each of these three emails that 30 days past the label expiration date, the label will be unpublished from the Declare database unless there are extenuating circumstances approved by the Institute.

Once unpublished from the website, the label may be re-published for the full new label fee. If there is an issue with the point of contact used to communicate to the manufacturer account, or if ILFI fails to send these notifications, ILFI will honor the renewal pricing and update the label expiration date accordingly.

ALL labels must still be submitted within the renewal period, even if payment has been received via invoice, or they will be subject to removal from the database. If a label is removed under these circumstances, please reach out to declare.support@living-future.org when ready to renew and ILFI can reinstate the label for no additional fees.

Mid-Cycle Update Policy

Changes to product formulation invalidate the Declare label and require the manufacturer to resubmit documentation and pay a product license fee.

To encourage companies to develop nontoxic alternatives, the fee is waived if the change is to remove a Red List ingredient or provide additional transparency. Manufacturers that change their product chemistry and are able to move up a Declaration Status or remove all proprietary ingredients are eligible for the fee waiver.

Changes to product chemistry that do not result in an improvement in Declaration Status will be subject to a mid-cycle update fee. Requested changes to a product name, listed manufacturer, life expectancy, end of life options, or company name are subject to a partial label redraft fee.

Formal Clarification Requests on Declare Claims

When a manufacturer, supplier, consumer or organization feels the reporting requirements of Declare have not been fully met by a manufacturer, or they have formal questions regarding a product or supply chain claim, they may submit a formal request for clarification. The formal clarification request must include a thorough explanation of the contents or claim in question, along with the product manufacturer name and Declare ID. Formal clarification requests must be submitted directly to the Declare Support team by emailing declare.support@living-future.org. The formal clarification request must include the contact information of the individual or organization representative submitting the request; anonymous requests will not be processed.

The submitted clarification request will be reviewed by the Institute’s Declare team and, if warranted, the Institute’s Program team. Following this review, the request will be submitted to the manufacturer for response. The manufacturer in question has 30 days from the day the request is forwarded by the Institute to respond and provide appropriate documentation or the label will be temporarily suspended. The manufacturer response will be reviewed and evaluated. The Institute may utilize additional Third Party Review to resolve the manufacturer response.

If errors are found, the label must be redrafted and published to the Declare database. If the label error or errors are determined to be the fault of the manufacturer or manufacturer’s consultant, labels will be redrafted and published at the expense of the manufacturer. Redrafted labels require full vetting by the Declare team and will be processed and invoiced as a full label. If the label error or errors are determined to be the fault of the Institute, labels will be redrafted and published free of charge.

DECLARE THIRD PARTY VERIFICATION (3PV)

The International Living Future Institute has collaborated with approved program third-party Verifiers to provide manufacturers with the opportunity for third-party verification of Declare label claims. This optional program offers an additional level of confidence and risk mitigation through the review of all ingredients, supply chain information, and Declare label claims.

Labels with the Declare third-party verified mark and those listed in the database as “Third-Party Verified” have been verified by a professional third-party Verifier to ensure the accuracy of the manufacturer’s supply chain, purchasing, and ingredient claims.

Manufacturers must provide supplier confirmation of all ingredient claims to the contracted Verifier. Manufacturers can use the supply chain reporting tools within 3E Exchange (formerly Toxnot) to collect and report the required supplier backup for verification; alternately manufacturers may compile supplier data and transfer to the Verifier by email or agreed upon digital platform. Final approval of the Declare claims must be made by the Verifier through 3E Exchange.

Third-Party Verification Overview

The International Living Future Institute has collaborated with approved third-party Verifiers to provide manufacturers with the opportunity for an independent, objective verification of Declare label claims. This optional program offers an additional level of confidence and risk mitigation through the review of all ingredients, supply chain information, and Declare label claims.

Verifiers review and confirm the Declare application for completeness and accuracy. All published manufacturer product data; chamber testing results (when applicable); and manufacturer purchase orders and/or supplier contracts are reviewed. The product ingredient disclosure is reviewed to confirm accuracy. The assessor ensures all program requirements are met and suppliers are contacted to confirm disclosed materials and any proprietary ingredients are free of Red List chemicals. The final assessor-confirmed Declare application is then reviewed by ILFI before the Declare label is published.

The third-party Verifiers confirm manufacturer ingredient claims and add a layer of accountability and rigor to the program. The program gives product specifiers additional confidence in the products they are selecting.

Assessment Requirements and Documentation Collection Process

All Declare third-party verification claims must be reviewed by an ILFI-approved Verifier. The Verifier must have a current signed agreement with ILFI and be an ILFI Member in good standing. The steps in the

process are outlined in the following four sub-topics:

General Product and Manufacturer Information

The Verifier will review the manufacturer-provided documentation confirming:

- All ingredients/materials included in the product at 100ppm or greater are represented
- All required product and manufacturer information has been provided
- Any additional required testing data, such as air chamber testing or tests specifically called out in applied Red List Exceptions, have been provided and are current.

Ingredient and Declare Program Exception Verification

The Verifier will coordinate with the manufacturer to collect all applicable supplier data to verify the constituent chemistry of all raw materials within the manufacturer's products meets the following criteria:

- CASRNs are provided for all applicable ingredients/materials and reported correctly. The Verifier should confirm any ingredients that do not require a reported CASRN per the Declare Special CASRN Reporting requirements.
- The Verifier will verify the full Product Inventory, to 100ppm, and confirm 100% of ingredients have been reviewed.
- As ILFI has a 1% by weight allowance for proprietary ingredients/materials, the Verifier will review and verify a manufacturer's Product Inventory to 100ppm and determine that 1% or less of the product consists of proprietary chemistries and that all proprietary chemistries are disclosed by CASRNs and free of Red List chemicals.

The Verifier will vet the bill of materials and chemical inventory against the current version of the Red List, assuring all ingredients/materials that appear on the Red List and Watch List Priority for Inclusion List are identified.

- The full list of Red List CASRNs is published to the ILFI website. The full list of Red List and Watch List CASRNs are also included in the Declare submission platform on 3E Exchange (formerly Toxnot).
- If an ingredient is submitted using a European Community (EC) number or is a metal alloy submitted using a UNS or EN number, the Verifier will determine from the chemical formula and chemical

structure whether the ingredient belongs to one of the Red List chemical classes. If the ingredient contains an element or functional group belonging to a Red List banned chemical class, the Verifier must submit the EC number or alloy number and chemical class to declare.support@living-future.org for direct addition to the Priority List and consideration for future addition to the Red List. The product can be marked Red List Free if it has no other Red List ingredients. However, with updates to the Red List, future labels may be Declared.

The Verifier will complete a supply chain review, documentation collection, and verification of information. The Verifier will request the following information from participating Declare manufacturers:

- Product inventory, product recipe and/or bills of materials for the specified products being assessed. All information will be reported down to the 100 ppm level to verify constituents are listed in accordance with the Declare program requirements.
- Supplier formulation confirmation for each ingredient/material listed on the bill of materials. Any combination of the following may be used to confirm 100% of a finished product's formulation:
    - SDS or MSDS sheets for raw material ingredients within the Product Inventory/Recipe/BOM.
    - A written statement from the supplier listing the ingredient/material name and CASRN for all ingredients/materials in the supplied material to 100 ppm of the finished product pursuing a Declare label.
    - Reaction ingredients with a written statement from the manufacturer or supplier's chemist detailing the inputs and results of the reaction.
    - Testing data confirming the material or chemical composition of the finished part/material. Testing data must explicitly show what is present in the product; testing data may not be used to simply show the absence of chemicals of concern.
- Small product hardware must be reported with an ingredient name and CASRN, when appropriate. Alloy numbers do not require reporting for metal small product hardware. Inventory or verification is not required for components that meet the definition of small product hardware. Product hardware will impact Declaration Status if Red List chemicals are used.
- Materials purchase confirmation for each ingredient/material present in the final product at or above 100 ppm. The following may be used to demonstrate purchasing compliance:
    - Purchase Orders from each supplier to validate the material they supplied is purchased by the product manufacturer.
    - Executed supplier contracts for parts/components whose formulation is specified as part of a contract.
    - For parts/components with testing data confirming the formulation, ingredient/material purchasing confirmation is not required.
- Supplier contact information including contact name, phone number and email address for suppliers or complete supplier surveys through 3E Exchange (formerly Toxnot).
- Product emissions chamber testing for all interior products with the potential to emit; emissions testing against CDPH Standard Method v1.2-2017 or approved equivalent. All equivalent emissions test must be either published as acceptable by ILFI or approved in writing prior to product submission.
- Confirmation of RoHS 2011 compliance for electrical components, including RoHS or CE Mark testing data or certification markers.

LBC Imperative and Exception Verification

The Verifier will review and confirm compliance with applicable LBC Imperatives, including Healthy Interior Performance and Responsible Sourcing, which are each referenced separately on the label.

I-14 Responsible Sourcing Verification

Confirmation of responsible wood sourcing claims, if applicable. See Responsible Sourcing clarifications below.

“Product Available with FSC Chain of Custody”
Documentation: Final manufacturer’s FSC Chain of Custody certificate

*The Verifier will verify that the manufacturer has FSC Chain of Custody certification, allowing the manufacturer to designate “Product Available with FSC Chain of Custody”. While manufacturers may directly market or promote their products elsewhere as FSC certified, the specific language of this Imperative compliance both communicates the need for due diligence and clarifies that not all of the available product will carry FSC Chain of Custody certification. LBC project teams should understand that they will need to either purchase the product directly from the manufacturer or from a certified retailer. *

“FSC Chain-of-Custody certification traces the path of products from forests through the supply chain, verifying that FSC-certified material is identified or kept separated from non-certified material throughout the chain. Any company in this supply chain, including harvesters, processors, manufacturers, distributors, printers, retailers or anyone that is taking ownership of the forest product before the end user, needs to be FSC certified to be able to label or promote their products as FSC certified.”* – Forest Stewardship Council

A chain of custody certificate is required for the millwork shop, as well as for any operation that manufactures or processes the timber product. Brokers or agents, who take neither physical nor legal possession of the products do not need to become COC certified.

Retailers must be FSC certified to transfer the FSC claim on products if they are selling to building contractors or to consumers who will be reporting their purchase of FSC-certified material for programs such as LBC and LEED. With respect to retailers, “product” refers to an item that will not undergo any further modification prior to arriving on the project site.

Types of Chain of Custody:
Certificates noting either of the following are acceptable:

- **FSC 100%** – FSC-certified virgin material originating in FSC-certified forests or plantations that has not been mixed with material of another material category throughout the supply chain.
- **FSC Mix Credit** – For materials with an FSC Percentage Claim (e.g. FSC Mix XX%), only the % of material that is designated (e.g. XX%) counts toward FSC COC count. **The remaining non-FSC COC wood must come from low risk sources (see below).**

Salvaged Wood Content

Documentation: Receipts from the seller/broker or demonstrating the manufacturer's purchase of all salvaged wood procurements should be presented.

Salvaged wood is defined as wood that has already been extracted from the forest and used for some purpose. An example is used building materials that can be repurposed wholly in their current form or with slight refurbishment.

Low Risk Wood (LBC 4.0 only)

Low risk wood is defined as that coming from a source country with a score of 80 or higher as reported on the Nature, Economy and People Connected Tool, where the country has laws and a low rating for both the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and Protected Sites and Species Sub-categories, and laws in at least 13 additional Sub-categories, including one law in each of the five Legal Categories.

LBC Low Risk Countries w NEPCon Score 80 or above

Updated December 2019

- Denmark
- New Zealand
- Finland
- Sweden
- Switzerland
- Norway
- Canada
- Germany
- United Kingdom
- Austria
- Belgium
- Estonia
- Ireland
- France
- Czech Republic
- Japan
- Australia
- United States of America
- Lithuania
- Portugal
- Poland
- Latvia
- Korea, South
- Spain

I-14 Exception Compliance

Pending FSC Certification
Wood from entities with pending FSC certification is acceptable if the timber is processed (either harvested or milled, as relevant) after the FSC certification audit (step two of the FSC Steps to Certification) has occurred, even if final certification of the mill or forest is still in progress.

Invasive Species
Wood that does not carry third-party certification but was sourced from either trees infested with invasive species or trees that are an invasive species and need to be removed to maintain the health of a forest is allowed. Allowed: pine beetle wood, Western Juniper, black locust, and for LBC 4.0 only, emerald ash borer wood.
Documentation: An official statement that the targeted species is considered to be invasive or overpopulated in a particular region. The statement must come from a named authoritative body that has made an official assessment, has demonstrated expertise, and does not have a direct commercial interest or other conflict of interest.
A narrative explaining how harvest practices met the extraction standards of the Forest Stewardship Council and ensured effective collection to limit the spread of the invasive species.

Surplus Wood
Donations or purchases of non-FSC surplus wood are acceptable if they are leftovers (vs. stockpiles) from an individual or project, (vs. a commercial wood supplier) and were initially purchased or harvested for some use other than the LBC project.

Storm-Felled Wood
Wood from trees killed in FEMA-designated natural disasters (or international equivalent) is allowed if new trees are planted to replace all the storm-felled trees used in the project. The manufacturer must provide a brief (1-2 page) narrative describing the disaster, why the removal of the wood was necessary and appropriate, and how, when, and where the replacement trees were planted.

Final Documentation Submission and ILFI Review

Following the previous three sections of documentation upload and qualification review, the Applicant will complete the following steps to submit the Declare application to ILFI, which then assigns the Verifier as a Partner on the submission. The Verifier should check the application for validity and correctness of information; ILFI additionally reviews the application for completeness and adherence to Declare reporting guidelines.

1. The Verifier should submit all additional documentation as required by applicable LBC Red List Exceptions.
2. The product’s bill of materials and/or chemical inventory should be drafted or uploaded through the manufacturer’s 3E Exchange (formerly Toxnot) account. ILFI will then assign the Verifier the role of “Partner” to allow for review of the full Declare application and electronic sign-off by the Verifier for all Declare submission claims prior to drafting of the Declare label.

3. ILFI begins its review of the application once all Declare fees are paid. ILFI will confirm all required product data is provided and notify the Verifier of any missing information. The label is drafted and returned to Verifier and manufacturer for review. The drafted label must be approved by both the Verifier and manufacturer prior to publication.
4. Changes to the above-written Verifier 3E Exchange (formerly Toxnot) workflow must be approved by ILFI in writing prior to product submission.

Declare Third-Party Verification License Renewal, Fees, and Expiration

1. **Renew with 3PV designation, no changes to the labeled product or product family (product)**: If there are no changes to the product that would affect any information disclosed on the Declare label, then the assigned Verifier and manufacturer must both approve the label for renewal.
    a. After 3 years from the original label publication, all 3PV labels must undergo a full re-verification process, with the same rigor as a new label verification process.
    b. ILFI encourages Verifiers and manufacturers to create timelines and scopes of work that allow for full review in advance of label expiration dates, to avoid disruption of active label status and to avoid incurring any additional fees.

1. **Renew with 3PV designation, with change(s) to labeled product or product family**: If any change is made to the product that affects any information disclosed on the Declare label, the Verifier and manufacturer must notify ILFI of all the changes, and that verification of the new information is complete, and in accordance with the program.
    a. New label fees, redraft fees, and/or other ILFI fees may apply at ILFI's sole discretion, depending upon the scope of the changes being required.
    b. All changes must be reported to ILFI and verified and may include, but are not limited to, changes in product's bill of materials, supply chain vendors, chemistry, Red List status, and assembly location.
    c. Any label that is submitted and published with changes will have a new date upon which the mandatory 3 year re-verification is based.

1. **Renew without 3PV designation**: A manufacturer may elect to revert to self-declared status at any time, within the general Declare program rules.
    a. If the 3PV status is removed at the request of the manufacturer before the label's published expiration date, ILFI republishing fees may be incurred by the manufacturer.
    b. If the 3PV status is allowed to voluntarily lapse, then the label will automatically fall under the label renewal policies for non-3PV labels and the 3PV designation and logo will be removed from the label.
    c. Reinstatement of the 3PV status after electing to return to self-declared status will require a full reverification by an ILFI-approved Verifier.

Declare Third-Party Verifier Qualifications and

Partnership Agreement

All Declare third-party Verifiers must meet one of the following criteria:

- Member of the Living Product Challenge Ecosystem, in good standing
- Approved Verifier through the Health Product Declaration Collaborative Third-Party Verification program. Both the organizational and individual qualification criteria must be met.
- Firm or personal invite from ILFI based on assessor reputation.

In addition, all of the following criteria must be met:

- Declare Verifier (individual or firm) holds an ILFI Membership and remains a member in good standing
- Verifier has signed and returned the ILFI Declare Verifier Agreement
- Verifier has reviewed and understands the Declare Manufacturer's Guide
- Verifier has reviewed and understands the Declare Terms and Conditions Agreement for manufacturers
- Verifier has completed all required Declare program training hosted by ILFI

Currently approved Verifiers for Declare Third-Party Verification include:

- A Greener Space
- Bureau Veritas
- Foresight Management
- For Future Generations
- GreenCircle Certified
- Green Living Projects
- Parallel Sustainability
- Sarah Sannen
- SCS Global Services
- Vertima
- WAP Sustainability Consulting

Declare Third-Party Verification and the Living Product Challenge

All manufacturers attempting the Living Product Challenge (LPC) are required to hold a third-party verified Declare label for all products attempting LPC, unless exempted per a formal program Exception. For manufacturers attempting the Living Product Challenge, it is recommended that a member of the LPC Ecosystem act as the assessor for the product attempting LPC certification, or confirm with the Ecosystem auditor that the assessor partnership is approved. LPC products not assessed by the selected LPC Ecosystem auditor may require re-review as part of LPC certification. A Third Party Verified Declare label is not required prior to the start of LPC Certification, but may expedite the Living Product Challenge

certification process.

PARTNERSHIPS AND ADDITIONAL SERVICES

Declare International Partner Program

To meet the increasing demands for transparent building materials in international markets, the Institute has partnered with capacity-building organizations to provide outreach and support to international markets. The Declare International Partner Program provides local resources and expertise, along with label translation services, to manufacturers and suppliers in select markets. For additional details and a full list of Partner markets, visit https://living-future.org/declare/basics/

Declare Label Translation Protocol

As a supplement to the Declare International Partner Program, the Institute has launched a Declare Label Translation Protocol for manufacturers interested in translating their Declare labels in multiple languages. Manufacturers must adhere to the following criteria:

- All Declare labels must be published in English, at minimum. The English version of the Declare label is considered the original.
- Language translations available by a signed Declare International Partner must be completed by the International Partner. Contact ILFI for the complete list of international partners that offer translations.
- Languages not available for translation by a signed Declare International Partner may be completed by a translation service of the manufacturer's choice, with advanced written approval from ILFI.
    - Manufacturers must contract with a translating service directly.
    - ILFI will send all relevant Declare forms/files for translation in Word and Excel format.
    - The manufacturer must provide translated files back to ILFI as Word/Excel documents
    - The manufacturer/translator is responsible for including any font files, as applicable.
- Translations are considered a new format of the existing Declare label and license. They will be issued using the same Declare ID as the original label.
    - Translations of this label are under the original license and should not be counted as separate labels.
- The ILFI label drafting fee for translated labels is $500/language; the renewal fee for translated labels is $250/language.
    - The ILFI fee includes formatted files for translation, redrafted/formatted jpeg and eps files, updated Declare database entry, and linking to the language filter on the Declare database.
    - Renewal of translated labels may only include updates to the Declare ID and expiration date. Any changes to the product information or ingredient list will incur the full translation fee.
- ILFI will provide all translated and reformatted jpeg/eps files to the manufacturer for review and approval prior to publishing.
    - It is recommended that the manufacturer send the final jpeg file(s) to the hired translation company prior to approval. Changes required after approval and publishing

may incur a label redraft fee.

GLOSSARY

The following terms and definitions apply to the Declare program.

Functional Additive

Functional Additive: A chemical compound, chemical substance, or mixture of chemical substances intentionally added to impart a desired characteristic to a product or serve a particular function in the product, e.g., stabilizer, colorant, plasticizer. Functional additives can be polymeric or non-polymeric in nature.

From GreenScreen v1.4

Impurity

Impurity: An unintended constituent present in a substance as manufactured. It may, for example, originate from the starting materials or be the result of secondary or incomplete reactions during the production process. While it is present in the final substance, it was not intentionally added. In most cases impurities constitute less than 10% of the substance.

From ECHA

Ingredient

The term “ingredient” is synonymous with a “substance.” A substance is a matter of constant composition best characterized by the entities (molecules, formula units, atoms) it is composed of and by its physical properties such as density, refractive index, electric conductivity, melting point, etc. (i.e., intentionally used substances, intentional reaction products, impurities). Ingredients are commonly identified by a single Chemical Abstract Services Registry Number (CASRN).

Metal and Metal Alloy Numbers

The UNS of metals and alloys was developed by the American National Standards Institute (ANSI) in 1974 to uniformly number commercial metals and alloys in the United States, and is administered jointly by the Society of Automotive Engineers (SAE) and the American Society for Testing and Materials (ASTM). The Copper Development Association maintains a database of copper alloys here https://unscopperalloys.org/. There is a free lookup database of all UNS alloys here: https://www.matweb.com/search/SearchUNS.aspx.

EN alloy numbers are defined by several standards written and maintained by the European Committee for Standardization (CEN).

Monomer

Monomer: A substance capable of forming covalent bonds with a sequence of additional like or unlike molecules under the conditions of the relevant polymer-forming reaction used for the particular process. Examples: propylene, terephthalic acid, caprolactam. An unreacted monomer is an intended component in a polymeric material. A residual monomer is an unintended impurity in a polymer.
[Definitions from REACH and GreenScreen v1.4]

Number Average Molecular Weight

Number Average Molecular weight (Mn): The arithmetic average (mean) of the molecular weights of all molecules in a polymer. (This value should not take into account unreacted monomers and other reactants, but must include oligomers.) Molecular weight is mass of a given molecule, measured in Daltons (Da).

From U.S. EPA Polymer Exemption Guidance Manual

Oligomer

Oligomer: A polymer fragment containing three or more monomer units. An oligomer is of intermediate relative molecular mass, and is derived as an intermediate step in the polymerization reaction.

From U.S. EPA Polymer Exemption Guidance Manual

Polymer Substance or Polymeric Material

Polymer substance: A chemical compound characterized by the sequence of one or more types of monomer units. Such molecules must be distributed over a range of molecular weights wherein differences in the molecular weight are primarily attributable to differences in the number of monomer units. In the context of this definition, a “monomer unit” means the reacted form of a monomer in a polymer. Examples: polypropylene, polyethylene terephthalate, polyamide (nylon) 6. [Note: this is a summary definition; see U.S. EPA, REACH, and others for more complete technical definitions.]

Polymeric Material: A mixture of substances that includes one or more polymer substance(s) , all other functional additives (i.e., intentionally added substances), residual or unreacted monomers, and unintentional impurities.

Systems Furniture

Systems furniture is defined as a modular furniture system that might include work surfaces, cabinetry, file systems, flexible partitions and office chairs to create or furnish a series of office workspaces. Only those

furniture elements that are designed for repetitive use in commercial office environments (regardless of the number of times they are used in the project) must comply with LBC requirements.

Small Electrical Components

A Small Electrical Component (SEC) is defined as any discrete, assembled component with any number of terminals, leads, or electromechanical components that is shipped as a unit from a supplier to the final product manufacturer. These terminals, leads and electromechanical components can connect to create an electronic circuit to perform a particular function, or be integrated within a package, and may be considered part of the main SEC. To be considered an SEC, a component must be fully sealed and enclosed within the final product. SECs may be active, passive or electromechanical.

Small Product Hardware

Small product hardware consists of a single ingredient and is required for the connection of components within a product. Individual pieces of product hardware are less than 0.5% of the weight of the finished product and no more than 5% by weight of the complete product.

Volatile Organic Compounds (VOCs)

A volatile organic compound (VOC) is any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. As gases, VOCs are emitted into the air from products or processes and are often harmful to human health and to the environment by themselves, as well as by reacting with other gases to form other air pollutants after they are in the air.

PROGRAM RESOURCES

The Living Building Challenge Red List

The LBC Red List is a list of chemicals representing the “worst in class” substances prevalent in the building industry that pose serious risks to human health and the environment. The Red List is organized by chemical class and lists individual chemicals by Chemical Abstract Registry Number (CASRN). Since its inception in 2006, the Red List has been an intuitive tool for communicating the need to stop using chemicals that cause harm.

Chemical classes are added to or retired from the Red List with each new version of the LBC Standard. The chemical classes are described below.

The chemicals included in each class are detailed in the current LBC Red List CASRN Guide (scroll to bottom). Individual chemicals within chemical classes are updated in the CASRN Guide on an annual basis with input from ILFI’s Material Health Technical Advisory Group.

Red List chemicals serve many different functions in many building products. However, the use of these chemicals can cause harm to health and the environment. Hazards include cancer, reproductive toxicity, acute or chronic organ toxicity, endocrine disruption, persistence, ozone depletion, and others.

Safer chemical alternatives, product designs, and building designs are possible: although prevalent, Red List compounds are not necessary in most instances.

LBC Red List Summary Statements

ALKYLPHENOLS AND RELATED COMPOUNDS

Alkylphenols are a large family of organic compounds used in a wide variety of products, including cleaning products, beauty products, contraceptives, coatings, fragrances, thermoplastics, carbonless copy paper, and agrochemicals. Most concerns are focused on alkylphenol ethoxylates (APEs), which bioaccumulate and have been shown to cause endocrine disruption in fish. APEs are in cleaning products that end up in waterways from wastewater treatment effluent. Some alkylphenols, especially nonylphenol, are being phased out in Europe, and more research into their impacts is needed. A few governments with environmentally preferable purchasing programs restrict or ban APEs.

REF: http://www2.mst.dk/Udgiv/publications/2013/04/978-87-92903-99-0.pdf

ANTIMICROBIALS (MARKETED WITH A HEALTH CLAIM)

Antimicrobials are a class of chemicals designed to kill or inhibit the growth of microbes. Antimicrobials are frequently used in soaps and building materials, including countertops, paints, and doorknobs. Nineteen

antimicrobials were banned in soaps and bodywashes by the FDA in 2016. Antimicrobials used in building materials are regulated by the EPA as a pesticide, falling outside of the scope of the FDA's ban. Antimicrobials are often used as a preservative in building materials, but the health benefits of their use have not been established or substantiated. Some antimicrobials are endocrine disruptors, and have been shown to impair learning and weaken muscle function.

Interest in building products with applied antimicrobial treatments has increased significantly during the recent global COVID-19 pandemic. While information regarding individual substances' efficacy in controlling propagation of SARS-CoV-2 remains incomplete, "no evidence yet exists to demonstrate that products intended for use in interior spaces that incorporate antimicrobial additives result in healthier populations." (COVID-19 Statement: Understanding Antimicrobial Ingredients in Building Materials, Perkins and Will and Healthy Building Network (2020)) ILFI continues to monitor the situation and commits to presenting current information about reported or potential human and environmental health impacts of antimicrobial substances as commonly used within the building industry and supporting its community of users in best utilizing this information in their own practice.

REF: Understanding Antimicrobial Ingredients in Building Materials

ASBESTOS COMPOUNDS

Asbestos is a mineral fiber that is used in a variety of construction materials for its strength and heat resisting capabilities. It is often found in wall insulation, vinyl floor coverings, paint compounds, roofing, heat-resistant fabrics, and automobile brakes. Exposure occurs as asbestos fibers are released into the air during use, demolition, work, building, or repair of asbestos-containing materials. Asbestos is a known human carcinogen, increasing risks of lung cancer, mesothelioma, and asbestosis.

REF: Learn About Asbestos | US EPA

BISPHENOL A (BPA) AND STRUCTURAL ANALOGUES

Bisphenol A (BPA) and chemicals with structural or functional similarity, or BPA structural analogues (NTP 2017), are used to manufacture polycarbonate plastics, epoxy resins and other products. The plastics are used in many consumer products, such as drink bottles, DVDs, eyeglass lenses, electronics, car parts, and other products that must not break easily. Epoxy resins are used for lining food cans and water pipes, and for many sales receipts. Most recent testing in animal models and epidemiological studies in humans have shown that early life BPA exposure adversely effect neurological function and development, as well as adversely affect male sex organs (such as the prostate gland) in fetuses, infants, and small children (Inadera 2015). Most health organizations advise against the use of BPA for baby bottles and related infant products. BPA has also been found in breast milk demonstrating that this chemical has the potential to expose infant populations. BPA structural analogues such as Bisphenol S (BPS) are often less legally restricted and considered a "regrettable substitution" for BPA and pose many of the same risks as BPA.

REF: Bisphenol A Structural Analogues
REF: Neurological Effects of Bisphenol A and its Analogues – PMC

CALIFORNIA-BANNED SOLVENTS

California-banned solvents herein refer to the volatile organic compounds (VOCs) designated as Group II Exempt Compounds by South Coast Air Quality Management District (South Coast AQMD) Rule 102. This designation results from the US EPA's use of the criterion of smog formation (defined as an organic compound's contribution to the formation of ground-level ozone) to inform the regulatory definition of a VOC. As a result, US federal air quality regulations focus on VOCs that increase ground-level ozone concentrations, and exempt (meaning exclude) compounds with negligible reactivity. The basis of this determination is the ground-level ozone forming potential of ethane. Rules promulgated by South Coast AQMD (including Rule 1113 – Architectural Coatings, Rule 1143 – Consumer Paint Thinners and Multi-Purpose Solvents, and Rule 1168 – Adhesive and Sealant Applications) therefore serve as gap-filling measures, limiting exempt compounds' product concentration and content by regulation when they are not regulated by the EPA. Additionally following these Rules that limit the percentage by weight of these exempt compounds in their respective product types, cyclic, branched, or linear, volatile completely methylated siloxanes (VMS) are not subject to the percentage by weight limit and are not included in the LBC Red List. Though the South Coast AQMD is an authority having jurisdiction (AHJ) overseeing specific sectors of the California building products market, its restrictions on VOCs are considered industry exemplars and have influenced a significant proportion of these product industries to conform to its standards.

REF: https://www.aqmd.gov/home/rules-compliance/compliance/vocs/exempts/group-ii

CHLORINATED POLYMERS, INCLUDING PVC, PVDC, CHLOROPRENE (NEOPRENE MONOMER), AND CPVC

PVC's vinyl chloride monomer building block is a known human carcinogen, according to the US Department of Health and Human Services. In addition, PVC is a Persistent Organic Pollutant Source Material. Due to its chlorine content, PVC often contains other Red List ingredients, such as cadmium, lead, and phthalates. The manufacture and disposal of chlorinated polymers can result in the production of dioxins and disposal phases. Dioxins are some of the most potent toxins known to humans, with no known safe limit for exposure and a strong propensity for bioaccumulation. In addition, dioxins are highly persistent in the environment.

Chloroprene is a Persistent Organic Pollutant Source Material. Due to its carbon- chlorine base, chloroprene contributes to the creation of dioxins at different points in its life cycle (often manufacturing and/or disposal). According to the World Health Organization, dioxins are some of the most potent toxins known to humans, with no known safe limit for exposure and a strong propensity for bioaccumulation. In addition, dioxins are highly persistent in the environment.

Chlorinated Polyethylene (CPE) and Chlorosulfonated Polyethylene (CSPE) are Persistent Organic Pollutant Source Materials: due to their carbon-chlorine bases, these products contribute to the creation of dioxins and furans at different points in their life cycle (often manufacturing and/or disposal). According to the World Health Organization, dioxins are some of the most potent toxins known to humans, with no known safe limit for exposure and a strong propensity for bioaccumulation. In addition, dioxins are highly persistent in the environment. Similarly, furans accumulate in animal fat, concentrating as they travel up the food chain. Non-chlorinated polyethylene products are readily available in many product categories.

REF (dioxins): Dioxins

CHLOROBENZENES

Chlorobenzene is used primarily as a solvent, a degreaser for auto parts, and a chemical intermediary for making other chemicals, so exposures are primarily a risk to workers making or using it. Most exposures are through inhalation of fumes. Short-term exposure can cause headaches, sleepiness, nausea, numbness, muscle spasms, and in extreme cases, unconsciousness. Chronic (long-term) exposure can cause increased signs of neurotoxicity (numbness, etc.) and irritation of the upper respiratory tract. In animals, chronic exposure has also caused kidney and liver damage. Chlorobenzene is broken down by sun and bacteria in the environment and does not accumulate in the food chain.

REF: Chlorobenzene | ToxFAQs™ | ATSDR

CHLOROFLUOROCARBONS (CFCS) AND HYDROCHLOROFLUOROCARBONS (HCFCS)

According to US EPA, the depletion of the Earth's protective ozone layer by chlorofluorocarbons (or CFCs) is responsible for an increased incidence of skin cancer, cataracts, impairment of human immune systems, and damage to wildlife. CFCs have been banned from production in the United States since 1995.

Hydrochlorofluorocarbons (HCFCs) are potent ozone-depleting compounds. While less destructive than the now-banned chlorofluorocarbons, HCFCs are targeted for gradual phaseout by the US EPA, with a total ban going into effect in the year 2030. According to US EPA, the depletion of the Earth's protective ozone layer is responsible for an increased incidence of skin cancer, cataracts, impairment of human immune systems, and damage to wildlife.

REF: Phaseout of Ozone-Depleting Substances (ODS) | US EPA

FORMALDEHYDE (ADDED)

Formaldehyde is classified by the International Agency for Research on Cancer and the State of California as a known human carcinogen. Common health effects at low levels of exposure to this volatile organic compound include irritation and sensitization, and the compound also acts as an asthma trigger. Long-term exposure is associated with nasal cancers and leukemia.

REF: Formaldehyde and Cancer Risk – NCI

MONOMERIC, AND POLYMERIC AND ORGANOPHOSPHATE HALOGENATED FLAME RETARDANTS (HFRS)

Halogenated Fire Retardants (HFRs) are a broad class of flame retardants containing chlorine or bromine that have aroused concern due to their exponential accumulation in human beings in recent years. HFRs are persistent bioaccumulative toxins, meaning that they accumulate in organisms and the broader environment, often reaching alarmingly high concentrations as they travel up the food chain. In addition, certain halogenated products have shown evidence of harm to humans and other animal species. According

to the Washington State Department of Ecology, for example, the toxicity endpoints of concern for Penta-PBDE include adverse effects on neurological development, reproduction, thyroid hormone disruption and possible liver toxicity.

HFRs include PBDE, TBBPA, HBCD, Deca-BDE, TCPP, TCEP, Dechlorane Plus, and other retardants with bromine or chlorine. Boron is not an HFR and is allowed. Many products, including virtually all foam insulations, contain HFRs.

REF: Flame retardants – Washington State Department of Ecology

ORGANOTIN COMPOUNDS

Organotin compounds are a class of substances containing a bond between tin and carbon. Organotin compounds are used in the production of PVC, silicone rubber, and polyurethane. Exposure can cause memory loss, eye irritation, and liver damage. Certain organotin compounds are neurotoxins and acute exposure can be lethal. Organotin compounds are persistent in the environment and pose a threat to aquatic life at elevated concentrations. Animal studies have indicated organotin compounds might damage the immune and nervous systems.

REF: ORGANOTIN (Methyl and Butyl) TOXICITY

PER- AND POLYFLUORINATED ALKYL SUBSTANCES (PFAS)

Perfluorinated and Polyfluorinated Alkyl Substances, also commonly referred to as PFAS, are synthetic manufactured fluorine-containing chemicals that exist in many forms with many uses in building and consumer products. Perfluorinated Compounds, or PFCs, are a subset of PFAS. Building product applications of PFAS include roofing materials, paints and coatings, sealants, caulks, adhesives, carpets, and more, providing highly desirable functions such as weatherproofing, corrosion prevention, lubrication, friction reduction, and grease and water resistance. PFAS and PFCs are characterized by their carbon-fluorine bonds, which are some of the strongest bonds in all of organic chemistry. The wide range of uses for PFAS and PFCs increases the potential for human and environmental exposure and is magnified by their indefinite persistence in the environment and potential for bioaccumulation. While most individual PFAS have not been studied for their impacts to human and environmental health, their persistence contributes to bioaccumulation to levels that we know to be potentially harmful. In many cases, relatively safer non-fluorinated alternatives exist for these applications and many building product sectors are already making a transition to safer chemistries.

REF: OECD Portal on Per and Poly Fluorinated Chemicals
REF: Research on Per- and Polyfluoroalkyl Substances (PFAS) | US EPA
REF: ITRC PFAS
REF: PFAS Central

PHTHALATES (ORTHOPHTHALATES)

Mounting evidence from animal studies show the hormone-disrupting potential of phthalates, primarily orthophthalates, prompting the National Research Council to urge the US Environmental Protection Agency

to pursue a “cumulative risk assessment” of this class of chemicals to determine their interactivity. Testing by the Centers for Disease Control and Prevention shows that phthalates are nearly ubiquitous in the US population, with highest concentrations in women and in children aged 6 to 11 years. The endocrine disrupting nature of phthalates has implications for childhood and reproductive development, as well as cancer incidence. The European Union and over a dozen countries have banned the use of phthalates in children’s products, as has the State of California.

REF (endocrine disruptors): EDC-2: The Endocrine Society’s Second Scientific Statement on Endocrine-Disrupting Chemicals – PMC

POLYCHLORINATED BIPHENYLS (PCBS)

PCB manufacturing in the United States stopped in 1977 but the compound is long-lasting in the environment (mostly in soils) around old manufacturing and disposal sites, in old electrical transformers and electrical devices, and in fish and their predators. PCBs make good coolants, lubricants, and insulators for electrical equipment of all kinds. They are known to cause cancer in animals and are probable human carcinogens, but exposure tends to be limited to people who worked in the electrical industry many years ago, lived close to manufacturing sites, and/or ate contaminated fish. Health effects also include acne-like skin conditions and neurobehavioral and immunological changes in children.

REF: Polychlorinated Biphenyls (PCBs) Toxicity: Table of Contents | Environmental Medicine | ATSDR

POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)

PAHs are a group of chemicals that are often produced by the incomplete combustion of organic material, particularly wood and fossil fuels. PAHs are commonly inhaled in tobacco smoke or smoke from indoor stoves fueled by wood or coal. They can also be ingested by eating burned meat. PAHs are also used to manufacture certain types of dyes. Exposure to PAHs is linked to lung, skin, and urinary cancer, and short-term exposure may cause vomiting and diarrhea. Almost every American has detectable levels of PAHs in their body.

REF:” All About PAHs | The Superfund Research Center”:https://superfund.oregonstate.edu/all-about-pahs

SHORT-CHAIN AND MEDIUM-CHAIN CHLORINATED PARAFFINS (SCCPS & MCCPS)

SCCPs are most commonly used as lubricants and coolants in metal cutting and forming operations and are also used, along with MCCPs, as secondary plasticizers and flame retardants in plastics, such as PVC. Human exposure can be occupational, via inhalation of metalworking mists, or through contaminated food and dermal contact. Environmental exposure is usually from manufacturing activities, such as production, disposal, incineration, spills into waterways, and sewage effluent. SCCPs and MCCPs are persistent and very bioaccumulative in sediment. They have been found in marine mammals, other biota, and human breast milk in both industrial and remote areas. Toxic effects on mammals can include liver, hormone, and kidney damage that over a long term could lead to cancer in those organs.

REF: Risk Management for Short-Chain Chlorinated Paraffins | US EPA

TOXIC HEAVY METALS

Toxic heavy metals, including arsenic, cadmium, chromium (VI), lead (added), and mercury, pose a number of threats to health.

Arsenic is a carcinogen and can cause developmental issues.

The US Department of Health and Human Services and the International Agency for Research on Cancer have determined that cadmium is a known human carcinogen associated with lung cancer. Additionally, acute and long-term exposures can lead to lung and kidney damage, bone loss, and hypertension. In sufficient quantities, cadmium is lethal. Cadmium's extreme toxicity means that overexposure can occur even when only trace amounts are present, such as during smelting and electroplating activities.

Chromium, primarily used in chrome plating materials, can cause breathing problems as well as nasal and lung cancer. Although chromium is a naturally occurring element and chromium III (trivalent chrome) is an essential nutrient, chromium (VI) (hexavalent chrome) can cause serious health issues, especially for factory workers who can inhale or ingest it during manufacturing. There has been concern about it in drinking water and, lacking EPA maximum allowable levels, the State of California set a public health goal for it. Chromium (VI) is used primarily for chrome plating of metals for decorative or protective finishes, making stainless steel, leather tanning, anti-corrosive agents for paints, and in textile dyes and pigments. Long-term or high-level exposure through inhalation can cause nasal irritation and ulcers, breathing problems, and nasal and lung cancer in unprotected workers. Ingestion can cause anemia and/or stomach tumors. Skin contact can cause skin ulcers and allergic reactions.

According to the Agency for Toxic Substances and Disease Registry, the environmental levels of lead have increased more than 1000-fold over the last three centuries, due almost exclusively to human activities. Lead exposure is damaging to virtually every organ and system in the human body, but is particularly damaging to the brain and central nervous system—profoundly so for young children and developing fetuses. Lead exposure is correlated with decreased IQ and delayed learning in children; scientific research has identified no safe level of lead exposure, and effects are irreversible.

According to the World Health Organization, mercury produces a suite of ill effects, including harm to the nervous, digestive, and immune systems, and even death. WHO lists children and developing fetuses as especially vulnerable to damage from mercury. Mercury bioaccumulates in the environment, eventually reaching concentrations thousands of times more intense than ambient levels.

REF: Certain Metals – SixClasses.org
REF: Public Health Statement for Arsenic
REF: Cadmium and Cadmium Compounds
REF: Hexavalent Chromium – Overview | Occupational Safety and Health Administration
REF: Lead poisoning
REF: Mercury | US EPA

VOLATILE ORGANIC COMPOUNDS (VOCS) IN WET APPLIED PRODUCTS

VOCs are members of a large group of organic chemicals that can evaporate into the indoor air under normal temperature conditions and into the outdoor air, causing environmental impacts such as photochemical smog. Their health effects vary widely, from respiratory irritants to human carcinogens (such as formaldehyde), which is of concern since they are ingredients in many products in the built environment. On-site wet applied products (paints, adhesives, and sealants) are of particular concern because they can directly impact the health of installers who may not be using breathing or dermal protection, unlike in-factory wet applied materials that are (usually) applied with worker and environmental protections in place.
Unlike other items that appear on the Red List, (VOCs) are not banned outright. Wet-applied products (including coatings, adhesives, and sealants) applied on site must meet the following established emissions and/or VOC content standards: “Wet-applied products (including coatings, adhesives, and sealants) applied on site must have VOC levels below the South Coast Air Quality Management District (SCAQMD) Rule 1168 for Adhesives and Sealants or the CARB 2007 Suggested Control Measure (SCM) for Architectural Coatings, as applicable.”

WOOD TREATMENTS CONTAINING CREOSOTE OR PENTACHLOROPHENOL

Many conventional wood treatments introduce a litany of human health and environmental problems. The traits that make wood treatments effective at retarding rot and insect damage are also effective at damaging many other forms of life. According to the US Department of Health and Human Services, creosote exposure is associated with skin and scrotum cancer in humans, and liver, kidney, and gestational problems in laboratory animals. Inorganic arsenic is not only an acute toxin; it is a known human carcinogen. Pentachlorophenol is linked to liver and immune system damage in humans, and reproductive and thyroid damage in laboratory animals.

REF: (creosote): https://wwwn.cdc.gov/TSP/PHS/PHS.aspx?phsid=64&toxid=18
REF (pentachlorophenol): https://www.atsdr.cdc.gov/phs/phs.asp?id=400&tid=70

The Watch List

The LBC Watch List and the LBC Priority List create a transparent on-ramp for the LBC Red List. The current LBC Red List CASRN Guide (scroll to bottom) contains these lists.

Adding chemicals or chemical classes to the LBC Watch List signals that ILFI is considering their future inclusion in the LBC Red List. The Watch List does not impact a product’s Declaration Status nor the ability of LBC project teams to use products that contain these chemicals.
Substances on the Watch List may graduate to the Priority List if ILFI intends to add them to the Red List in the near future. A chemical must be designated as “Priority” for at least 12 months before it can be added to the Red List. A chemical designated as Priority for Red List Inclusion will be flagged in light orange on a Declare label but does not impact the product’s Declaration Status.

Stakeholder dialogue about whether and how to move substances between the Watch, Priority, and Red Lists is welcome. Questions and comments about specific chemicals and classes can be sent to declare.support@living-future.org. Other ways to engage include applying to our Material Health Technical Advisory Group – email tech.advisory@living-future.org.

How Annual LBC Red List Changes Affect Product Manufacturers

An active Declare label with a status of LBC Red List Free or LBC Red List Approved at the time of specification (when the project team places the product order with the manufacturer) is sufficient documentation of product compliance with I13 Red List. This remains true even if a constituent chemical in the product is added to the Red List prior to the label's expiration date. ILFI will encourage project teams to download the Declare label information at the time of specification.

Products in Declare will be evaluated against the LBC Red List version that is active when a manufacturer submits the product for its annual label renewal. At that time, a product with a Declare status of LBC Red List Free or LBC Red List Approved may subsequently receive Declared status because a constituent chemical was subsequently added to the Red List and the product formulation wasn't changed. ILFI will inform project teams that if they did not document the compliance status of the Declare label at the time of specification, they may cross-reference the Red List ingredient identified on the renewed Declare label with the contents of the Red List at the time of project registration, to demonstrate compliance.

The Dialogue

The Dialogue is the online forum for requesting precedent-setting clarifications, exceptions, and definitions related to program requirements. Through its responses to those requests, ILFI provides guidance on situations, devised strategies, or innovations that were not contemplated by the rule set articulated in the Handbooks for a given Standard or Program. Anyone can review the posted questions and rulings, but only registered manufacturers that have initiated at least one label submission can submit posts to the Dialogue.

Rulings are made publicly available so that other project teams and interested parties can learn from the posted questions and responses. Identifying information specific to the manufacturer (or any party submitting a request) and its product(s) will be omitted, but all other content included in the inquiry will be posted. Searchable based on content, the activity in the Dialogue not only provides a mechanism for distributing strategies for success, but also yields modifications to future releases of Declare and its program requirements. In this way, the Dialogue captures the ongoing evolution of the Standards and Programs and gives credit to the hundreds, if not thousands, of individuals who contribute to the process.

POSTING TO THE DIALOGUE

To ensure that the question is directed through the most appropriate process, manufacturers are advised to read this informative post and consider the questions detailed within before submitting. If a review of those questions suggests that the inquiry doesn't warrant submission as a Dialogue post, but rather is seeking clarification or additional information, then it should be directed to declare.support@living-future.org as a standard technical support question. Technical support staff will direct the question through Dialogue if deemed appropriate.

Posts to the Dialogue are submitted by email to declare.support@living-future.org and must contain the

following:

- A subject line that identifies the topic and includes the words “Dialogue Post”;
- The registered product name (if product has already been submitted to ILFI for review);
- The program requirement the post pertains to; and
- A specific question(s) on a single topic with sufficient detail and background to permit evaluation.

Posts related to Declare Program Exceptions and Red List Change Requests utilize specific forms that can be accessed through the ILFI Member Dashboard, on the Declare page.

ILFI will review the submission and reply by email with either a formal determination or request for additional information. After the final determination has been sent to the project team, both the submission and the determination will also be posted to the public Dialogue site.

Reference Links

The Living Building Challenge: https://living-future.org/lbc/

The Living Product Challenge: https://living-future.org/lpc/

The Declare Database: https://declare.living-future.org/

The Declare About Page: https://living-future.org/declare/

3E Exchange (formerly Toxnot): https://exchange.3eco.com

Connect ILFI Membership to 3E Exchange (formerly Toxnot): http://help.exchange.3eco.com/en/articles/2294705-connect-your-ilfi-membership-and-3e-exchange-account

3E Exchange (formerly Toxnot) and Declare: http://help.exchange.3eco.com/en/articles/3667417-step-by-step-creating-a-declare-label-from-start-to-finish

Submission, Review, and Publishing: http://help.exchange.3eco.com/en/articles/2294126-declare-label-submission-review-and-publishing

The Pharos Project: https://www.pharosproject.net/

Health Product Declaration Collaborative: http://www.hpd-collaborative.org/

US Green Building Council, LEED v4: http://www.usgbc.org/leed-v4

California Department of Public Health Standard Method V1.1-2010: http://standards.nsf.org/apps/group_public/download.php/11782/CDPH-IAQ_StandardMethod_V1_1_2010%5B1%5D.pdf..

California Department of Public Health Standard Method V1.2-2017: https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/CDPH%20Document%20Library/CDPH-IAQ_StandardMethod_V1_2_2017_ADA.pdf

AgBB Health-related Evaluation Procedure for Volatile Organic Compounds Emissions from Building Products: https://www.umweltbundesamt.de/sites/default/files/medien/355/dokumente/agbb_evaluation_scheme_2015.pdf

South Coast Air Quality Management District, Rule 1168: http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1168.pdf

California Air Resources Board 2007 Suggested Control Measure for Architectural Coatings: https://www.arb.ca.gov/coatings/arch/Approved_2007_SCM.pdf

Declare Online Education: https://living-future.org/online-learning/?program=declare

REACH Article 3: https://reachonline.eu/reach/en/title-i-chapter-2-article-3.html

U.S. EPA Polymer Exemption Guidance Manual: https://www.epa.gov/sites/default/files/2015-03/documents/polyguid.pdf

GreenScreen v1.4: https://www.greenscreenchemicals.org/learn/guidance-and-method-documents-downloads

ECHA: https://echa-term.echa.europa.eu

Approved Program and Label Reference

Manufacturers that have received a Declare label have the right to refer to their products as the following:

If your product has been issued a label with a “Declared” Declaration Status: “Product X” is participating in Declare.

If your product has been issued a Declare label and determined to be “Red List Approved” due to a temporary Red List Exception: “Product X” is Living Building Challenge Red List Approved.

If your product has been issued a Declare label and determined to be “Red List Free”: “Product X” is Red List Free.

If your product has been determined to meet the requirements for all applicable Imperatives of the Living Building Challenge: “Product X” is LBC Compliant.

Manufacturers may not make any environmental claims about their products in relationship to Declare and the Living Building Challenge other than those listed above. Manufacturers specifically cannot claim that

their product has been certified by Declare or the Living Building Challenge or endorsed by Declare or the Living Building Challenge. Any manufacturer with an active, published Declare label may represent themselves as “Participating in Declare.”

Summary of Changes

This summary lists the updates to the Declare Manufacturer's Guide. Corrections made as needed throughout for grammar, punctuation, nomenclature, typos, and links are not included.

April 2024 Update

This summary lists, by Section heading, the April 2024 updates to the Declare Manufacturer's Guide originally published between December of 2021 and March of 2022. Corrections made throughout for grammar, punctuation, nomenclature, typos, and links are not included.

Changes to Program Requirements and Contents (Q1 2024)

April 2024

SPECIAL CASRN REPORTING REQUIREMENTS

- Specified a pathway for identifying and screening ingredients using a European Community number when no CASRN is available.
- Metals and metal alloys must be identified using UNS or EN alloy numbers instead of CASRNs.
- Specified a pathway for identifying and screening polymers with no CASRN.

I-10 COMPLIANCE: INTERIOR PRODUCTS WITH THE POTENTIAL TO EMIT VOCs

- Conformant Certifications That Use CDPH as Testing Standard
    - Added a link to the CDPH webpage that lists conformant certifications.

Changes to Declare Third Party Verification (Q1 2024)

April 2024

ASSESSMENT REQUIREMENTS AND DOCUMENTATION COLLECTION PROCESS

- Ingredient and Declare Program Exception Verification
    - Added instruction for verifiers to notify ILFI if chemicals with EC numbers belong to Red List classes

Changes to Glossary (Q1 2024)

Added definitions of Metals and Metal Alloys and several polymer-related terms.

Changes to Program Resources (Q1 2024)

April 2024

THE LIVING BUILDING CHALLENGE RED LIST
Description updated

- **LBC Red List Summary Statements**
  - Description and links updated
- **The Watch List**
  - Description updated
- **How Annual LBC Red List Changes Affect Product Manufacturers**
  - Section added

REFERENCE LINKS
Added several Reference Links for definitions of polymer terms.

January 2024 Update

This summary lists, by Section heading, the January 2024 updates to the Declare Manufacturer's Guide originally published between December of 2021 and March of 2022. Corrections made throughout for grammar, punctuation, nomenclature, typos, and links are not included.

Changes to Declare Program Exceptions (Q4 23)

January 2024

RL-009b Formaldehyde
Equivalency between Oceania and US formaldehyde standards was updated.

Changes to Declare Third-Party Verification (Q4 23)

January 2024

THROUGHOUT

- Corrected “assessor” to “Verifier” throughout the section

DECLARE THIRD-PARTY VERIFICATION LICENSE FEES

- Title changed to Declare Third-Party Verification License Renewal, Fees, and Expiration
- Previous content completely replaced with new information specifying process and fee implications for renewal with and without third-party verification designation.

June 2023 Update

Changes to Create and Maintain a Declare Label (June 2023)

June 2023

6 SIMPLE STEPS TO DECLARE

- This section was updated to reflect the Rush policy and clarify the process.

April 2023 Updates

This summary lists, by Section heading, the April 2023 updates to the Declare Manufacturer’s Guide originally published between December of 2021 and March of 2022. Corrections made throughout for grammar, punctuation, nomenclature, typos, and links are not included.

Changes to ILFI Declare Manufacturer’s Guide (Q1 2023)

April 2023

No changes were made to the ILFI Declare Manufacturer’s Guide section during the April 2023 update.

Changes to Introduction to ILFI (Q1 2023)

April 2023

No changes were made to Introduction to ILFI in the April 2023 update.

Changes to Introduction to Declare (Q1 2023)

April 2023

No changes were made to Introduction to Declare in the April 2023 update.

Changes to Program Requirements and Contents (Q1 2023)

April 2023

No changes were made to Changes to Program Requirements and Contents in the January 2023 update.

Changes to Program Clarifications (Q1 2023)

April 2023

No changes were made to Program Clarifications in the April 2023 update.

Changes to Declare Program Exceptions (Q1 2023)

April 2023

RL-023b PFAS and PVC in Plenum Wire and Cable

- Exception RL-023b PFAS and PVC in Plenum Wire and Cable was added.

Changes to Create and Maintain a Declare Label (Q1 2023)

April 2023

No changes were made to Create and Maintain a Declare Label in the April 2023 update.

Changes to Declare Third Party Verification (Q1 2023)

April 2023

No changes were made to Declare Third Party Verification during the April 2023 update.

Changes to Partnerships and Additional Services (Q1 2023)

April 2023

No changes were made to Partnerships and Additional Services in the April 2023 update.

Changes to Glossary (Q1 2023)

April 2023

No changes were made to the Glossary during the Q1 2023 update.

Changes to Program Resources (Q1 2023)

April 2023

No changes were made to Program Resources during the Q1 2023 update.

January 2023 Updates

This summary lists, by Section heading, the January 2023 updates to the Declare Manufacturer’s Guide originally published between December of 2021 and March of 2022. Corrections made throughout for grammar, punctuation, nomenclature, typos, and links are not included.

Changes to ILFI Declare Manufacturer’s Guide (Q4 2022)

January 2023

No changes were made to the ILFI Declare Manufacturer’s Guide section during the January 2023 update.

Changes to Introduction to ILFI (Q4 2022)

January 2023

No changes were made to Introduction to ILFI in the January 2023 update.

Changes to Introduction to Declare (Q4 2022)

January 2023

No changes were made to Introduction to Declare in the January 2023 update.

Changes to Program Requirements and Contents (Q4 2022)

January 2023

PRODUCT-SPECIFIC INFORMATION REPORTED

- I-10 Compliance: Interior Products with the Potential to Emit VOCs
  - Conformant Certifications That Use CDPH as a Testing Standard
    - MAS Certified Green was added to the list of CDPH-conformant certifications.

Changes to Program Clarifications (Q4 2022)

January 2023

No changes were made to Program Clarifications in the January 2023 update.

Changes to Declare Program Exceptions (Q4 2022)

January 2023

AMENDED

- RL-002b SMALL ELECTRICAL COMPONENTS
  - Added CE Mark as compliant with RoHS exception.

Changes to Create and Maintain a Declare Label (Q4 2022)

January 2023

No changes were made to Create and Maintain a Declare Label in the January 2023 update.

Changes to Declare Third Party Verification (Q4 2022)

January 2023

- Assessment Requirements and Documentation Collection Process
    - Ingredient And Declare Program Exception Verification
        - Added acceptable documentation for CE Mark or RoHS.

Changes to Partnerships and Additional Services (Q4 2022)

January 2023

No changes were made to Partnerships and Additional Services in the January 2023 update.

Changes to Glossary (Q4 2022)

January 2023

No changes were made to the Glossary during the January 2023 update.

Changes to Program Resources (Q4 2022)

January 2023

No changes were made to Program Resources in the January 2023 update.

April 2022 Updates

This summary lists, by Section heading, the April 2022 updates to the Declare Manufacturer’s Guide

originally published between December of 2021 and March of 2022. Corrections made throughout for grammar, punctuation, nomenclature, typos, and links are not included.

Changes to ILFI Declare Manufacturer's Guide (Q1 2022)

April 2022

No changes were made to the ILFI Declare Manufacturer's Guide section in the April 2022 update.

Changes to Introduction to ILFI (Q1 2022)

April 2022

No changes were made to Introduction to ILFI in the April 2022 update.

Changes to Introduction to Declare (Q1 2022)

April 2022
Corrections made as needed throughout for grammar, punctuation, nomenclature, typos, and links.

PROGRAM ALIGNMENT

- Update text of Enterprise Green Communities Criteria to reference Declare database filter to find compliant products

Changes to Program Requirements and Contents (Q1 2022)

April 2022

No changes were made to Program Requirements and Contents in the April 2022 update.

Changes to Program Clarifications (Q1 2022)

April 2022
Corrections made as needed throughout for grammar, punctuation, nomenclature, typos, and links.

SMALL ELECTRICAL COMPONENTS

- Addition of topic to provide clarity on citing small electrical components as part of an ingredient transparency disclosure in Declare
- Addition of language to clarify additional materials that are or are not included in the scope of small electrical components in Declare

Changes to Declare Program Exceptions (Q1 2022)

April 2022
Corrections made as needed throughout for grammar, punctuation, nomenclature, typos, and links.

RL-002b SMALL ELECTRICAL COMPONENTS

- Addition of requirement to use Materials and Substances disclosure to clearly identify small electrical components
- Addition of requirement to reference take-back programs for small electrical components in the product description
- Update of Exception numbering to reflect different version of the Exception

RL-009b FORMALDEHYDE

- Removal of references to Specific Exterior Applications that belong only to RL-009a Formaldehyde in LBC
- Update of Exception numbering to reflect different version of the Exception

Changes to Create and Maintain a Declare Label (Q1 2022)

April 2022

No changes were made to Create and Maintain a Declare Label in the April 2022 update.

Changes to Declare Third Party Verification (3PV) (Q1 2022)

April 2022

No changes were made to Declare Third Party Verification (3PV) in the April 2022 update.

Changes to Partnerships and Additional Services (Q1 2022)

April 2022

No changes were made to Partnerships and Additional Services in the April 2022 update.

Changes to Glossary (Q1 2022)

April 2022
Corrections made as needed throughout for grammar, punctuation, nomenclature, typos, and links.

SMALL ELECTRICAL COMPONENTS

- Edit to definition to clarify what constitutes a small electrical component for the purposes of the Declare program

Changes to Program Resources (Q1 2022)

April 2022

In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

THE LIVING BUILDING CHALLENGE RED LIST

- Update text to reference 2022 LBC Red List CASRN Guide and latest annual updates to the LBC Red List

LBC RED LIST SUMMARY STATEMENTS

- Update text for Per- and Polyfluoroalkyl Substances (PFAS) / Perfluorinated Compounds (PFCs) and add additional references

January 2022 Updates

This summary lists, by Section heading, the January 2022 updates to the Declare Manufacturer’s Guide originally published between July and December of 2021. Corrections made throughout for grammar, punctuation, nomenclature, typos, and links are not included.

Changes to ILFI Declare Manufacturer’s Guide (Q4 2021)

January 2022

No changes.

Changes to Introduction to ILFI (Q4 2021)

January 2022

No changes.

Changes to Introduction to Declare (Q4 2021)

January 2022

No changes.

Changes to Program Requirements and Contents (Q4 2021)

January 2022

No changes.

Changes to Program Clarifications (Q4 2021)

January 2022

No changes.

Changes to Declare Program Exceptions (Q4 2021)

January 2022

No changes.

Changes to Create and Maintain a Declare Label (Q4 2021)

January 2022

In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

PROGRAM FEES

- Edit to add reduced pricing options for Declare portfolios of 50+ labels
- Edit to clarify the program definition of “company”

UNPUBLISHING OF EXPIRED LABELS

- Edit to clarify required timing of label submission and invoice or credit card payments to avoid expired labels from being removed from the Declare database

Changes to Declare Third Party Verification (3PV) (Q4 2021)

January 2022

No changes.

Changes to Partnerships and Additional Services (Q4 2021)

January 2022

No changes.

Changes to Glossary (Q4 2021)

January 2022

No changes.

Changes to Program Resources (Q4 2021)

January 2022

No changes.

July 2021 Updates

This summary lists, by Section heading, the July 2021 updates to the Declare Manufacturer's Guide originally published between October and December of 2020. Corrections made throughout for grammar, punctuation, nomenclature, typos, and links are not included.

Changes to ILFI Declare Manufacturer's Guide (Q2 2021)

July 2021

No changes.

Changes to Introduction to ILFI (Q2 2021)

July 2021

No changes.

Changes to Introduction to Declare (Q2 2021)

July 2021

No changes.

Changes to Program Requirements and Contents (Q2 2021)

July 2021

In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

PRODUCT-SPECIFIC INFORMATION REPORTED

- I-10 Compliance: Interior Products with the Potential to Emit VOCs
    - Edit to clarify that individual concentration results are not required as documentation in addition to a valid laboratory certificate of compliance or associated summary report, either of which must be less than three years old as of the date of specification

EMBODIED CARBON (OPTIONAL REPORTING FIELD)

- Edit to allow cradle-to-gate with options EPDs to be submitted for embodied carbon disclosure in Declare, if end-of-life (C1-C4) is included in options
- Edit to clarify that cradle-to-gate with options EPDs are associated with a grey bar indicator on the Declare label

Changes to Program Clarifications (Q2 2021)

July 2021

No changes.

Changes to Declare Program Exceptions (Q2 2021)

July 2021

No changes.

Changes to Create and Maintain a Declare Label (Q2 2021)

July 2021

No changes.

Changes to Declare Third Party Verification (3PV) (Q2 2021)

July 2021

In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

DECLARE THIRD-PARTY ASSESSOR QUALIFICATIONS AND PARTNERSHIP AGREEMENT

- Edit to add TrueNorth Collective as approved Declare Third-Party Assessor

Changes to Partnerships and Additional Services (Q2 2021)

July 2021

No changes.

Changes to Glossary (Q2 2021)

July 2021

No changes.

Changes to Program Resources (Q2 2021)

July 2021

No changes.

April 2021 Updates

The Declare Manufacturer's Guide is updated quarterly to reflect new Clarifications and Exceptions resulting from Dialogue posts, add clarifying text, tables or graphics, and make other amendments or additions that improve the clarity and content of the Guide. Quarterly updates will occur in January, April, July, and October of each year, at which time this Manufacturer's Guide will be revised and the cover page time stamped with the latest revision date. See Previous Versions of the Declare Manufacturer's Guide in the Table of Contents for a link to download PDFs of previous versions.

At each update, a summary of the substantive changes is provided here. This summary lists, by Section heading, the April 2021 updates to the Declare Manufacturer's Guide originally published between October and December of 2020. Corrections made throughout for grammar, punctuation, nomenclature, typos, and links are not included.

Changes to ILFI Declare Manufacturer's Guide (Q1 2021)

April 2021

No changes.

Changes to Introduction to ILFI (Q1 2021)

April 2021

No changes.

Changes to Introduction to Declare (Q1 2021)

April 2021
In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

READING THE DECLARE LABEL

- Updated explanatory guide and image to the Declare label and the information communicated through it

Changes to Program Requirements and Contents (Q1 2021)

April 2021
In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

PRODUCT-SPECIFIC INFORMATION REPORTED

- I-13: Transparency and Red List Avoidance
  - Moved Heading "How Annual LBC Red List Changes Affect Product Manufacturers" to Program Clarifications, LBC Red List and Annual Updates

Changes to Program Clarifications (Q1 2021)

April 2021
In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

- New sub-topic: “LBC Red List and Annual Updates” consolidates information previously published in the sections, “I-13 Compliance: Transparent and Red List Avoidance” and “The Living Building Challenge Red List”

Changes to Declare Program Exceptions (Q1 2021)

April 2021

No changes.

Changes to Create and Maintain a Declare Label (Q1 2021)

April 2021

In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

FORMAL CLARIFICATION REQUESTS ON DECLARE CLAIMS

- Revised the guidelines on clarification requests, which are now reviewed and evaluated only by ILFI and no longer forwarded on to the party that initiated the request. ILFI retains the ability to utilize a third party to contribute additional expertise and opinion.

Changes to Declare Third Party Verification (3PV) (Q1 2021)

April 2021

In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

DECLARE THIRD-PARTY ASSESSOR QUALIFICATIONS AND PARTNERSHIP AGREEMENT

- Added list of currently-approved assessors for Declare Third-Party Verification services

Changes to Partnerships and Additional Services (Q1 2021)

April 2021

No changes.

Changes to Glossary (Q1 2021)

April 2021

No changes.

Changes to Program Resources (Q1 2021)

April 2021
In addition to the following, corrections made throughout for grammar, punctuation, nomenclature, typos, and links.

- New sub-topic: “The Dialogue” provides guidelines for types of questions that should be submitted to the Dialogue for official ruling from ILFI, identifies membership requirements to submit, and provides a link to the searchable Dialogue for historical product and manufacturer questions and answers.

THE LIVING BUILDING CHALLENGE RED LIST

- Expanded information regarding annual updates to the Red List to the Program Clarifications, LBC Red List and Annual Updates section

Previous Versions of the Declare Manufacturer’s Guide

Declare Manufacturer’s Guide

Published January 10, 2024
Published June 8, 2023
Published January 13, 2022

Published April 14, 2022
Published January 15, 2022
Published July 9, 2021
Published April 1, 2021
Published January 15, 2021