The Living Building Challenge (LBC) Red List 2024 Updates: A Guide for Manufacturers

Highlights

- **Changes to the Red List:** Effective April 1, 2024, the International Living Future Institute (ILFI) is updating the Red List to include 917 new CASRNs distributed across 10 chemical classes.
- **Changes to the Priority List:** ILFI moved all chemicals except antimicrobials and siloxanes from the Watch to the Priority List (3,198 CASRNs), and directly added 3,479 CASRNs to the Priority List that were already a part of existing chemical classes in Pharos.
- **Changes to the Watch List:** ILFI added four new chemical classes to the Watch List - short-chain halogenated hydrocarbons, asphalt, Stoddard solvent, and isocyanates.
- No new exceptions are being introduced at this time.
- Manufacturers may need to review product design and performance and assess how these updates may impact their product's status in Declare or compliance with Living Building Challenge program requirements for I13 Red List Imperative.

About the 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.

The Red List is the backbone of materials requirements in the Living Building Challenge, the Living Product Challenge, and the Declare label.

2024 Red List Update

Effective April 1, 2024, ILFI is updating the Living Building Challenge Red List, Priority List, and Watch List (the Lists). The various changes this year are focused on quality control of the Lists, updating the chemicals within existing chemical classes, and harmonization of the Lists with the latest building materials research. These changes were made in order to improve the accuracy and comprehensiveness of the existing Red List chemical classes. ILFI worked with the Healthy Building Network and the Red List Working Group within our Material Health Technical Advisory Group to generate and review the changes to the Lists.

The five types of changes to the Red, Priority, and Watch Lists in April 2024 include:

- **Improving Accuracy:** Correcting inaccurate CASRNs and removing duplicates.
- **Advancing Chemicals of Concern:** Moving all chemicals except antimicrobials from the Priority to the Red List (917 CASRNs distributed across 10 chemical classes), and moving all chemicals except antimicrobials and siloxanes from the Watch to the Priority List (3,198 CASRNs).
    - ILFI will do further research including alignment with industry partners on the class definition of antimicrobials before considering moving them to the Red List.

- **Updating Existing Chemical Classes:** Adding chemicals to the Priority List that are already a part of existing chemical classes in Pharos (3,479 CASRNs).
- **New Chemical Classes:** Adding four new chemical classes to the Watch List — these additions indicate that ILFI is researching these chemical classes and will consider adding them to the Red List in the future, along with essential use or market exceptions as appropriate. Safer alternatives exist for some but not all functions in products.
    - **Short-chain Halogenated Hydrocarbons**: Examples of chemicals in this class include vinyl chloride (the precursor to polyvinyl chloride), refrigerant fluids with high global warming potential, and many ozone-depleting chemicals.
    - **Asphalt**: An occupational carcinogen commonly used in insulation facing, waterproofing, and roofing as well as paving.
    - **Stoddard Solvent:** An occupational carcinogen and mutagen commonly used in roofing, waterproofing, sealants, metal coatings, paints, paint thinners.
    - **Isocyanates**: Respiratory sensitizers used in spray foam insulation, spray foam roofing, and polyurethane adhesive.
- **Removal of one Resin from the Red List**: Research by a toxicology firm showed that a specific Novolac resin, a phenol-formaldehyde polymer, is formulated such that the formaldehyde is the limiting reagent and is fully incorporated into the polymer with no residual formaldehyde in the final product. This chemical is moving to the Watch List.

Research and engagement with technical advisors and the scientific and manufacturing communities are needed before advancing more chemicals on the Priority List to the Red List or the new chemical classes from the Watch List to the Priority or Red Lists.

Please visit the Red List web page to download the updated Red List CASRN Guide.

Guidance and how to incorporate Red List updates

Manufacturers may need to review product design and performance and assess how these updates may impact their product's status in Declare, or compliance with the LBC Red List Imperative.

Products with a Declare label

Products with active Declare labels will be subject to the updated Red List at the time of the labels' renewal. Based on the chemicals represented in their ingredient disclosures, the Declaration status of the label may change. If the manufacturer chooses to renew its Declare label, they should provide the new label documentation to project teams from that time onward.

Feedback and questions

- If you have feedback or questions, please contact declare.support@living-future.org.
- For additional details about the Living Building Challenge Red List 2024 update, please visit https://living-future.org/red-list/.