

# Overview of Certification Testing Methodology

## 1 | Made without formaldehyde.

Like heavy metals, formaldehyde has never been used as a raw material in foam. Formaldehyde has been labeled as a cause of poor indoor air quality. The detection of less than 0.1 parts per million of formaldehyde in foam is verified in CertiPUR-US® certified foam by a small chamber emission test.

## 2 | Made without ozone depleters.

Ozone's presence is important in our upper atmosphere, where it provides a shield from the sun's radiant energy. The Montreal Protocol, adopted in 1987, mandated that industries eliminate ozone-depleting chlorofluorocarbons (CFCs) by the year 2000. U.S. foam producers were well ahead of schedule in complying with this regulation. Unfortunately, in some parts of the world, CFCs are still used to manufacture foam. The CertiPUR-US® label prohibits the use of any CFCs, or other ozone depleters, in the foam manufacturing process.

## 3 | Made without prohibited phthalates.

Phthalates (pronounced "thal'-ātes") are mainly used as a softening agent in the manufacture of some consumer products. The Consumer Product Safety Improvement Act (2009) eliminated the use of specific phthalates for use in children's toy and child care items. CertiPUR-US® goes a step further by requiring detailed laboratory analysis of foam extractions and prohibiting the use of phthalates regulated by the Consumer Product Safety Commission in all CertiPUR-US® certified foams.

## 4 | Made without mercury, lead and other heavy metals.

Though not common components of foam production, heavy metals in food (mercury in fish) and in the home (lead paint in children's toys) have made the entire heavy metal family an area of concern. CertiPUR-US® laboratory testing subjects material extracted to molecular analysis capable of detecting even trace

## CertiPUR-US® Certified Foams Come with Comfort and Confidence

CertiPUR-US® certified foams meet CertiPUR-US® program standards for content, emissions and durability. Foam samples are taken at the manufacturing stage and are analyzed by independent, accredited laboratories.

### CertiPUR-US® certified foams are:

- 1 Made without formaldehyde
- 2 Made without ozone depleters
- 3 Made without phthalates regulated by the U.S. Consumer Product Safety Commission
- 4 Made without mercury, lead and other heavy metals
- 5 Low VOC (volatile organic compound) emissions for indoor air quality (less than 0.5 parts per million)
- 6 Screened for relevant chemicals, including flame retardants, that are classified as carcinogens, mutagens or reproductive toxins and are harmful to human health

Administered by a nonprofit organization, CertiPUR-US® is a certification program for flexible polyurethane foam used in mattresses, sleep-related products and upholstered furniture. For technical criteria and a directory of participating companies, visit:

[www.certipur.us](http://www.certipur.us)

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amounts of heavy metal content. CertiPUR-US® certified foams meet the Consumer Product Safety Commission toy standard for lead.

## 5 | Low emission (low VOCs).

Volatile organic compounds (VOCs) are a major component of air pollution. VOC emissions from household products are also a concern for indoor air quality. CertiPUR-US® certified foams are tested using a small chamber test standardized by the International Organization for Standardization (ISO).\* In the test, foam samples are conditioned for 72 hours after which emissions of total volatile

organic compounds are measured. Results of this test verify that CertiPUR-US® compliant foams have low emissions for indoor air quality (less than 0.5 parts per million).

## 6 | Screened for relevant chemicals, including flame retardants, that are classified as carcinogens, mutagens or reproductive toxins and are harmful to human health.

Foam samples are taken at the manufacturing stage and screened for relevant chemicals (chemicals that could potentially be used in the manufacture of flexible polyurethane foam) that are classified as carcinogenic (may cause cancer), mutagenic (may cause genetic defects) or reprotoxic (may damage fertility or an unborn child) by the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). GHS is an internationally agreed-upon standard managed by the United Nations that was set up to replace the assortment of hazardous material classification and labeling systems previously used around the world.

**For more information on certification criteria, including laboratory testing methods, download technical guidelines at [certipur.us/technicalguidelines](http://certipur.us/technicalguidelines).**

[www.certipur.us](http://www.certipur.us)

All CertiPUR-US® testing is conducted by independent, internationally accredited laboratories. CertiPUR-US® is a program of the nonprofit Alliance for Flexible Polyurethane Foam, Inc.

\*ISO is one of the largest voluntary standards development organizations in the world, and is a trusted source for technical standards for materials, products, systems, and services. Known for their high technical quality and market relevancy, ISO standards have an important role in the technical infrastructure that guides design, manufacturing and trade in the global economy.

