

# Environment



## UL GREENGUARD Standards

GREENGUARD Certification is based on some of the most stringent chemical emissions standards in the world.

GREENGUARD Certification standards are nationally recognized voluntary standards which establish requirements for low-emitting products used in indoor environments, such as building materials, finishes, furnishings, cleaning products, and electronic equipment. Emissions criteria may vary based on product formulation and use. These standards are maintained by UL Environment and incorporate health-based emissions criteria established by the U.S. Environmental Protection Agency (EPA), State of California, and other reputable public health agencies.

GREENGUARD Certification programs follow procedures including:

- Product sample collection and handling
- Test methods
- Testing type and frequency
- Allowable emission levels
- Program application and acceptance processes
- Compliance monitoring

The criteria address total volatile organic compounds (TVOC), formaldehyde, total aldehydes, all individual chemicals with currently published Threshold Limit Values (TLVs) or Chronic Reference Exposure Levels (CRELs). In addition, all products are screened for carcinogens and reproductive toxins as listed by key government and regulatory programs.

### GREENGUARD Certification Standard

The GREENGUARD Certification standard is the first voluntary North American product emissions certification created specifically for commercial building products. This certification verifies that products meet stringent chemical emission limits originally developed as purchasing specifications for building projects for the US EPA and the State of Washington. GREENGUARD Certified products are compliant with stringent emission levels for over 360 VOCs, plus a limit on the total of all chemical emissions combined (TVOC). Furniture products that are GREENGUARD Certified are also compliant with the BIFMA X7.1 standard.



To learn more, visit [ul.com/environment](http://ul.com/environment) or call 1.888.485.4733

## GREENGUARD Gold Certification Standard

The emission limits for GREENGUARD Gold Certification include safety factors to account for sensitive individuals (such as children and the elderly). In addition to limiting emissions of over 360 VOCs and total chemical emissions, GREENGUARD Gold Certified products must also comply with requirements of the State of California’s Department of Public Health “*Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1 (2010)*” (also known as California Section 01350).

Below is a comparison between GREENGUARD Certification and GREENGUARD Gold Certification:

Criteria	GREENGUARD Certified	GREENGUARD Gold
Types of products certified	28 Categories	24 Categories
Number of individual volatile organic compounds (VOCs) evaluated and required to meet criteria	360	360
Requires on-going testing to show product compliance with standard	Yes	Yes
Certification program requires test laboratory to be ISO 17025 accredited (the highest standard in laboratory testing and calibration)	Yes	Yes
Total VOC (TVOC) limit	500 mg/m <sup>3</sup>	220 mg/m <sup>3</sup>
Formaldehyde limit	0.05ppm	0.0073 ppm
Individual VOC limit	1/10 TLV (threshold limit value)	1/100 TLV and 1/2 CRELS
Total aldehydes limit	0.1 ppm	0.043
Meets CA 01350 for applicable products types	No	Yes
Limits on emissions of total phthalates, consisting of dibutyl (DBP), diethylhexyl (DEHP), diethyl (DEP), dimethyl (DMP), butylbenzyl (BBP) and dioctyl (DOP) phthalates	N/A	Yes
N-Methylpyrrolidone (NMP) limit	N/A	160 mg/m <sup>3</sup>

More details on each program can be found at [www.greenguard.org](http://www.greenguard.org).

## How to Get Started

For more information on UL Environment’s services and how they can benefit your company, visit [www.ul.com/environment](http://www.ul.com/environment).

Or, call or write us today:

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