

CERTIFICATE OF COMPLIANCE



JRBStudio MCollection

10719-420

Certificate Number

03/10/2016 - 12/28/2016

Certificate Period

Certified

Status

UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Product tested in accordance with UL 2821 test method to show compliance to emission limits on UL 2818. Section 7.1 and 7.2.

Office furniture and furnishings are tested in accordance with ANSI/BIFMA M7.1-2011 and determined to comply with ANSI/BIFMA X7.1-2011 and ANSI/BIFMA e3-2014e Credit 7.6.1, 7.6.2, and 7.6.3. Individual furniture products are modeled in the private office environment. Products also determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010.



Environment

GREENGUARD Gold Certification Criteria for Individual Office Furniture Products

| Criteria | CAS Number | Maximum Allowable Emission Factor | | Units |
|---|------------|-----------------------------------|-------------------------------|--|
| | | Open Plan | Private Office | |
| TVOC ^(A) | - | 152 | 306 | $\mu\text{g}/\text{m}^2\cdot\text{hr}$ |
| Formaldehyde | 50-00-0 | 6.2 | 12.5 | $\mu\text{g}/\text{m}^2\cdot\text{hr}$ |
| Total Aldehydes ^(B) | - | 1.2 | 2.4 | $\mu\text{mol}/\text{m}^2\cdot\text{hr}$ |
| 4-Phenylcyclohexene | 4994-16-5 | 4.5 | 9.0 | $\mu\text{g}/\text{m}^2\cdot\text{hr}$ |
| 1-Methyl-2-pyrrolidinone ^(C) | 872-50-4 | 110 | 223 | $\mu\text{g}/\text{m}^2\cdot\text{hr}$ |
| Individual VOCs ^(D) | - | 1/2 CREL or 1/100th TLV | 1/2 CREL or 1/100th TLV | - |

- (A) Defined to be the total response of measured VOCs falling within the C₆ – C₁₆ range, with responses calibrated to a toluene surrogate.
- (B) The sum of all measured normal aldehydes from formaldehyde through nonanal, plus benzaldehyde, individually calibrated to a compound specific standard. Heptanal through nonanal are measured via TD/GC/MS analysis and the remaining aldehydes are measured using HPLC/UV analysis.
- (C) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 $\mu\text{g}/\text{day}$ and an inhalation rate of 20 m^3/day .
- (D) Allowable levels for chemicals not listed are derived from the lower of 1/2 the California Office of Environmental Health Hazard Assessment (OEHHA) Chronic Reference Exposure Level (CREL) as required per the CDPH/EHLB/Standard Method v1.1 and BIFMA level credit 7.6.2 and 1/100th of the Threshold Limit Value (TLV) industrial work place standard (Reference: American Conference of Government Industrial Hygienists, 6500 Glenway, Building D-7, and Cincinnati, OH 45211-4438).



Environment