## **CERTIFICATE**OF COMPLIANCE



United Chair®

**United Chair PILO** 

139275-410

Certificate Number

05/29/2019 - 02/23/2021

Certificate Period

Certified

Status

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

Commercial furniture and furnishings are tested in accordance with ANSI/BIFMA M7.1-2011(R2016) and determined to comply with ANSI/BIFMA X7.1-2011(R2016) and ANSI/BIFMA e3-2014e Credit 7.6.1. Seating products are modeled in the seating environment with a ventilation rate of 24.8 m³/hour.

Products tested in accordance with UL 2821 test method to show compliance to emission limits in UL 2818, Section 7.1.



## **GREENGUARD Certification Criteria for Furniture and Mattresses**

Criteria	CAS Number	Maximum Allowable Predicted Concentration	Units
$TVOC_{(A)}$	-	0.50	mg/m³
Formaldehyde	50-00-0	61.3 (50 ppb)	μg/m³
Total Aldehydes (B)	-	0.10	ppm
4-Phenylcyclohexene	4994-16-5	6.5	μg/m³
Individual VOCs (C)	-	1/10th TLV	-

<sup>(</sup>A) Defined to be the total response of measured VOCs falling within the C6 – C16 range, with responses calibrated to a toluene surrogate.



<sup>(</sup>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.

<sup>(</sup>C) Allowable levels for chemicals not listed are derived from 1/10th 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).

## **CERTIFICATE**OF COMPLIANCE



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139275-420

Certificate Number

05/29/2019 - 02/23/2021

Certificate Period

Certified

Status

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

Commercial furniture and furnishings are tested in accordance with ANSI/BIFMA M7.1-2011(R2016) and determined to comply with ANSI/BIFMA X7.1-2011(R2016) and ANSI/BIFMA e3-2014e Credit 7.6.1, 7.6.2, and 7.6.3. Seating products are modeled in the seating environment with a ventilation rate of 24.8 m³/hour. Products also determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.2-2017.

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



## **GREENGUARD Gold Certification Criteria for Furniture and Mattresses**

Criteria	CAS Number	Maximum Allowable Predicted Concentration	Units
TVOC (A)	-	0.22	mg/m³
Formaldehyde	50-00-0	9 (7.3 ppb)	μg/m³
Total Aldehydes (B)	-	0.043	ppm
4-Phenylcyclohexene	4994-16-5	6.5	μg/m³
1-Methyl-2-pyrrolidinone (C)	872-50-4	160	μg/m³
Individual VOCs (D)	-	1/2 CREL or 1/100th TLV	-

<sup>(</sup>A) Defined to be the total response of measured VOCs falling within the C6 – C16 range, with responses calibrated to a toluene surrogate.



<sup>(</sup>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.

<sup>(</sup>C) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m³/day.

<sup>(</sup>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 v1.2 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).