



January 8, 2018

NEST BEDDING
JOE ALEXANDER
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ALBANY, CA 94706

Subject: Project 91012, Profile Study Test Results

Thank you for choosing UL Environment and its ISO/IEC 17025 accredited testing laboratories for your analytical needs. Please find attached your profile study test report. The results for the "Love & Sleep" sample tested are compared to the criteria below:

| GREENGUARD and GREENGUARD Gold | TVOC | Formaldehyde | Total Aldehydes | CREL/TLV |
|--------------------------------|------|--------------|-----------------|----------|
| | ✓ | ✓ | ✓ | ✓ |

✓ - meets criteria; ✓* - meets within 25%; X - over by more than 25% of criteria

For more technical information about the GREENGUARD Certification programs, please visit, www.UL.com/GG.

Sincerely,

Allyson M. McFry
Chemistry Laboratory Director

Attachment: Report No. 91012-01



| GREENGUARD CERTIFICATION PROGRAM PROFILE STUDY TEST REPORT | |
|---|---|
| SAMPLE INFORMATION | |
| Customer: | Nest Bedding |
| Sample Identification: | UL Environment's 91012-P0010AA |
| Product Description: | BEDDING; Love & Sleep (one-sided area = 1.828 m ²) |
| Product Loading: | 0.31 m ² /m ³ |
| Date Received at UL Environment: | November 28, 2017 |
| Test Period: | 12/20/2017 - 12/21/2017 |
| Test Conditions: | 1.00 ± 0.05 ACH 50% RH ± 5% RH 23° C ± 1° C |
| Test Description: | The product was received by UL Environment as packaged and shipped by the customer. The package was visually inspected and stored in a controlled environment immediately following sample check-in. Just prior to loading, the product was unpackaged and prepared for the required loading. The sample was placed inside the environmental chamber, and tested according to the specified protocol. |
| ASTM Test Method: | ASTM D 5116 (1.0 ± 0.05 m ³ chamber) |

| RESULTS | | | |
|-----------------|---|----------------------------------|-------------------------|
| Analyte | 24 Hour Emission Factor (µg/m ² ·hr) | 168 Hour Predicted Concentration | |
| | | GREENGUARD | GREENGUARD Gold |
| TVOC | 337 | 0.027 mg/m ³ | 0.027 mg/m ³ |
| Formaldehyde | 10.4 | 0.001 ppm | 0.001 ppm |
| Total Aldehydes | 17.2 | 0.001 ppm | 0.001 ppm |

| MODELING PREDICTED CONCENTRATION PARAMETERS | | | | | | | | |
|---|-------------------------------|---------------|--------------------------------|-------------------------------|------------|--------------------------|----------------|----------------|
| Certification Program | Environment Basis | Product Usage | Surface Area (m ²) | Room Volume (m ³) | ACH (1/hr) | Assumed Decay Parameters | | |
| | | | | | | k _T | k _F | k _A |
| GREENGUARD and GREENGUARD Gold | EPA Exposure Factors Handbook | mattress | 2.6 | 34.9 | 0.45 | 0.005 | 0.005 | 0.005 |

CONFIDENTIAL

**Test data and interpretation applicable to
GREENGUARD Certification Program only**

| IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS AT 24 ELAPSED EXPOSURE HOURS | | |
|--|--|--|
| CAS Number | Compound Identified | Emission Factor (µg/m²•hr) |
| 556-67-2 | Cyclotetrasiloxane, octamethyl | 66.5 |
| 79-01-6 | Trichloroethylene (Ethene, 1,1,2-trichloro) [†] | 61.6 |
| 541-02-6 | Cyclopentasiloxane, decamethyl | 58.0 |
| 71-36-3 | 1-Butanol (N-Butyl alcohol) [†] | 24.4 |
| 108-90-7 | Benzene, chloro [†] | 21.8 |
| 141-79-7 | 3-Penten-2-one, 4-methyl* | 16.9 |
| 540-97-6 | Cyclohexasiloxane, dodecamethyl | 16.0 |
| 5989-27-5 | D-Limonene | 13.0 |
| 149-57-5 | 2-Ethylhexanoic acid [†] | 12.7 |
| 106-46-7 | Dichlorobenzene (1,4-) [†] | 12.7 |
| 98-56-6 | Benzene, 1-chloro-4-(trifluoromethyl)- | 10.4 |
| 110-98-5 | 2-Propanol, 1,1'-oxybis- (Dipropylene glycol)* | 6.8 |
| 475-20-7 | Longifolene | 6.5 |

*Indicates NIST/EPA/NIH best library match only based on retention time and mass spectral characteristics.

[†]Denotes quantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene.

| TARGET LIST ALDEHYDES AT 24 ELAPSED EXPOSURE HOURS | | |
|---|----------------------------------|--|
| CAS Number | Compound Identified | Emission Factor (µg/m²•hr) |
| 4170-30-3 | 2-Butenal | BQL |
| 75-07-0 | Acetaldehyde | BQL |
| 100-52-7 | Benzaldehyde | BQL |
| 5779-94-2 | Benzaldehyde, 2,5-dimethyl | BQL |
| 529-20-4 | Benzaldehyde, 2-methyl | BQL |
| 620-23-5 / 104-87-0 | Benzaldehyde, 3- and/or 4-methyl | BQL |
| 123-72-8 | Butanal | BQL |
| 590-86-3 | Butanal, 3-methyl | BQL |
| 50-00-0 | Formaldehyde | 10.4 |
| 66-25-1 | Hexanal | BQL |
| 110-62-3 | Pentanal | BQL |
| 123-38-6 | Propanal | 6.8 |

BQL denotes below quantifiable level of 0.04 µg based on a standard 18 L air collection volume for TVOC and individual VOCs and 0.1 µg based on a standard 45 L air collection volume for formaldehyde and total aldehydes.

Analyses based on EPA Compendium Method TO-17 and ASTM D 6196 for VOCs by thermal desorption followed by gas chromatography/mass spectrometry (TD/GC/MS), and EPA Method TO-11A and ASTM D 5197 for selected aldehydes by high performance liquid chromatography (HPLC).

This test data is provided for general informational purposes only. The data indicate the level of emissions from the designated product and how they compare to the emission criteria of the GREENGUARD and GREENGUARD Gold standards. This data does not imply that the product has been qualified to meet the requirements of the GREENGUARD Certification program nor does it imply that the product is or is not certified by the GREENGUARD Certification program.

This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation AT-1297.