GREENGUARD CERTIFICATION TEST REPORT

Customer Information	KUNSHAN WAYTEX TEXTILE INDUSTRY CO., LTD. JESSICA YANG 366 SONG JIA GANG RD, ZHOUSHI TOWN KUNSHAN JIANGSU 215300 CHINA
Product Description	T Will 20 Series - Woven Vinyl Flooring 205
Test Group	Vinyl Flooring - 01
Category	Flooring
Test Type	Certification — Year 4
Test Method	UL 2821 "GREENGUARD Certification Program Method for Measuring and Evaluating Chemical Emissions From Building Materials, Finishes and Furnishings Using Dynamic Environmental Chambers"

	Environment	TVOC	Formaldehyde	Total Aldehydes	CREL/TLV
GREENGUARD	Office	✓	✓	✓	✓
GREENGUARD Gold	Office	✓	✓	✓	✓
	Classroom	✓	✓	✓	✓

✓ - meets criteria; X - over criteria

Laboratory Approval

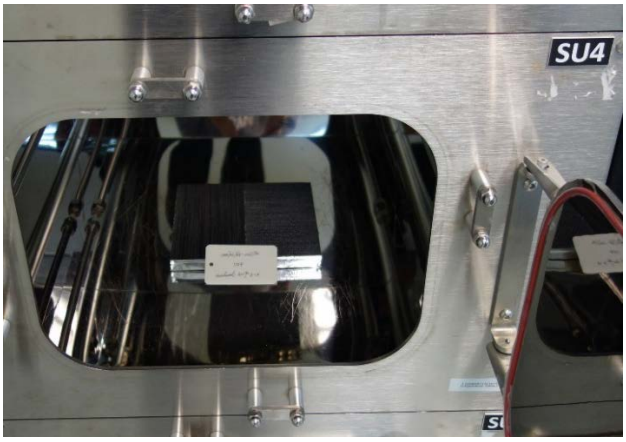
Ring Zhong
Laboratory Testing Supervisor

MODELING FOR PREDICTED AIR CONCENTRATION

Certification Program	Environment Basis	Modeling Basis	Surface Area (m^2)	Room Volume (m^3)	ACH (1/hr)
GREENGUARD and GREENGUARD Gold Office	CDPH/EHLB/Standard Method	floor	11.1	30.6	0.68
GREENGUARD Gold Classroom	CDPH/EHLB/Standard Method	floor	89.2	231	0.82

Note that certain environments and/or modeling scenarios may prevent assessment of low level CREL and TLV analytes due to the emissions being below the lower LOQ (0.04 µg). For example, benzene ½ CREL is 1.5 µg/m^3.

PHOTOGRAPH OF SAMPLE



GREENGUARD RESULTS SUMMARY

Product Description	T Will 20 Series - Woven Vinyl Flooring 205		
GREENGUARD Acceptable IAQ Criteria		**168 Hour Product Measurement**	**Product Compliance for IAQ**
TVOC[a]	≤ 0.5 mg/m³	0.053 mg/m³	Yes
Formaldehyde	≤ 0.05 ppm	< 0.002 ppm	Yes
Total Aldehydes[b]	≤ 0.10 ppm	< 0.002 ppm	Yes
4-Phenylcyclohexene	≤ 0.0065 mg/m³	< 0.003 mg/m³	Yes
Individual VOCs	all ≤ 1/10 TLV	----------[c]	Yes

[a] "TVOC" is the sum of all VOCs measured via TD/GC/MS which elute between n-hexane (C_6) and n-hexadecane (C_{16}) quantified using calibration to a toluene surrogate.
[b] "Total Aldehydes" is the sum of all measured normal aldehydes from formaldehyde to nonanal, plus benzaldehyde. Heptanal through nonanal are analyzed using TD/GC/MS. The remaining aldehydes are analyzed using HPL/UV methodology. All aldehydes are quantified to authentic standards.
[c] All individual VOCs detected met the criteria of less than 1/10 the ACGIH established threshold limit values (TLVs).

PROJECT DESCRIPTION

This study was conducted using a UL Environment's GREENGUARD test method following the requirements of GREENGUARD Certification program. The product was monitored for emissions of total volatile organic compounds (TVOC), formaldehyde, target list aldehydes, and other individual volatile organic compounds (VOCs) over a 168 hour exposure period. These emissions were measured and the resultant air concentrations were determined for each of the potential pollutants. Determination of compliance is based on predicted air concentrations modeled using the GREENGUARD program room loading.

Report Outline:

For UL Environment's technical references and resources click here or
https://industries.ul.com/wp-content/uploads/sites/2/2018/02/Technical-references-and-resources.pdf
For Product Evaluation Methodologies information click here or
https://industries.ul.com/wp-content/uploads/sites/2/2018/02/Product-Evaluation-Methodologies-GG.pdf
For Quality Control Program or Environmental Chamber Evaluations information click here or
https://industries.ul.com/wp-content/uploads/sites/2/2018/02/Quality-Control-Procedures.pdf
For RSD, Quality Assurance Report or other quality documents, Request here or contact ULE.

TABLE 1

ENVIRONMENTAL CHAMBER STUDY PARAMETERS	
Product Description	T Will 20 Series - Woven Vinyl Flooring 205
Product Manufacture Date	May 28, 2019
Product Collection Date	May 31, 2019
Product Shipping Date	June 3, 2019
Date Received	June 5, 2019
Accredited Laboratory Location*	ULE - Guangzhou
Test Description	The product was received by ULE Guangzhou Laboratory 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 to expose the finished surfaces only. The sample was placed inside the environmental chamber, and tested according to the specified protocol.
Test Period	6/11/2019 - 6/18/2019
Area	one-sided area = 0.0369 m^2
Chamber Volume	0.0879 m^3
Product Loading	0.42 m^2/m^3
Test Conditions	1.00 ± 0.05 ACH 50% RH ± 5% RH 23°C ± 1°C

The temperature range specification is 23°C ± 1°. The actual temperature range listed above may vary slightly. If the range is outside this specification, data was reviewed to ensure a negative impact did not occur.

*Accredited Laboratory Locations	
Location	**Address**
ULE – Marietta	UL Environment 2211 Newmarket Parkway, Marietta, GA 30067-9399 USA
ULE – Guangzhou	UL Verification Services (Guangzhou) 1-3F & Room 501, Building 2 (R&D Center A1), No. 25, South Huanshi Avenue, Nansha District, Guangzhou 511458, China
ULE - Cabiate	UL International Italia S.r.l ATTN: IAQ Laboratory Via Europa, 9, I – 22060 – Cabiate (Como), Italia
UL - Shimadzu	Shimadzu Techno-Research, Inc. 1, Nishinokyo-Shimoaicho Nakagyo-ku, Kyoto 604-8436 Japan
KCL	Korea Conformity Laboratories #805, I-Valley, 149 Gongdan-ro Gunpo-si, Gyeonggi-do, 15849 Korea

This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by International Accreditation Service. Refer to certificate and scope of accreditation TL-441.

TABLE 2

Product Description	T Will 20 Series - Woven Vinyl Flooring 205

TVOC CHAMBER CONCENTRATIONS, EMISSION FACTORS AND PREDICTED AIR CONCENTRATIONS

Elapsed Exposure Hour*	**Chamber Concentration µg/m³**	**Emission Factor µg/m²•hr**	**Predicted Air Concentration** µg/m³**
0 (Background)	BQL	BQL	---
6	125	298	159
24	66.8	159	86
48	70.0	167	80
72	60.7	145	74
96	50.2	120	68
168	42.1	100	53
1st Order Exponential Decay Constant = k_T = 0.003			

FORMALDEHYDE CHAMBER CONCENTRATIONS, EMISSION FACTORS AND PREDICTED AIR CONCENTRATIONS

Elapsed Exposure Hour*	**Chamber Concentration µg/m³**	**Emission Factor µg/m²•hr**	**Predicted Air Concentration****	
			µg/m³	**ppm**
0 (Background)	BQL	BQL	---	---
6	BQL	BQL	< 3	< 0.002
24	BQL	BQL	< 3	< 0.002
48	BQL	BQL	< 3	< 0.002
72	BQL	BQL	< 3	< 0.002
96	BQL	BQL	< 3	< 0.002
168	BQL	BQL	< 3	< 0.002

TARGET LIST ALDEHYDES CHAMBER CONCENTRATIONS, EMISSION FACTORS AND PREDICTED AIR CONCENTRATIONS

Elapsed Exposure Hour*	**Chamber Concentration µg/m³**	**Emission Factor µg/m²•hr**	**Predicted Air Concentration****	
			µg/m³	**ppm**
0 (Background)	BQL	BQL	---	---
6	96.6	230	123	0.067
24	31.9	76.0	42	0.023
48	19.2	45.8	25	0.014
72	11.3	26.9	15	0.009
96	7.2	17.2	9	0.005
168	2.5	6.0	< 3	< 0.002
1st Order Exponential Decay Constant = k_A = 0.021				

*Exposure hours are nominal (± 1 hour).
BQL = Below quantifiable level of 0.04 µg based on a standard 18 L air collection volume for VOCs and 0.1 µg based on a standard 45 L air collection volume for aldehydes.

**Predicted Air Concentrations are based on GREENGUARD modeling predicted concentration parameters. For more information click here.

TABLE 3

Product Description	T Will 20 Series - Woven Vinyl Flooring 205

CHAMBER CONCENTRATIONS OF IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

CAS Number	Compound	Elapsed Exposure Hour (µg/m³)						
		0 (BG)	6	24	48	72	96	168
108-05-4	Acetate, vinyl (Acetic acid ethenyl ester)†	BQL	176	63.1	50.5	31.3	22.2	9.2
143-08-8	1-Nonanol*	BQL	38.3	24.1	27.4	24.0	22.1	18.6
110453-78-6	(S)-(+)-6-Methyl-1-octanol*	BQL	19.8	11.7	12.5	10.6	9.5	7.7
104-76-7	1-Hexanol, 2-ethyl†	BQL	13.1	7.1	7.5	6.2	5.4	4.2
78-93-3	2-Butanone (Methyl ethyl ketone, MEK)†	BQL	13.1	5.3	4.6	2.5	2.1	
1653-40-3	1-Heptanol, 6-methyl	BQL	8.1	4.8	5.2	4.5	4.0	3.2
1632-16-2	Heptane, 3-methylene*	BQL	5.3	2.4				
13475-82-6	Heptane, 2,2,4,6,6-pentamethyl	BQL	4.9	2.5	2.2			
141-78-6	Acetate, ethyl	BQL	4.8					
6939-71-5	cis-Hexahydrophthalide*	BQL	4.6	3.3	4.2	4.0	4.0	4.0
58175-57-8	2-Propyl-1-pentanol*	BQL	4.0	2.3	2.4	2.0		
818-81-5	1-Octanol, 2-methyl-*	BQL	3.5	2.1	2.3	2.1		
71-36-3	1-Butanol (N-Butyl alcohol)†	BQL	3.2					
123-86-4	Acetate, butyl	BQL	2.5					
1000061-84-1	3-Undecene, 5-methyl-*	BQL	2.4					
18450-74-3	1-Heptanol, 2,4-dimethyl-, (2S,4R)-(-)*	BQL	2.0					

TABLE 4

Product Description	T Will 20 Series - Woven Vinyl Flooring 205

EMISSION FACTORS OF IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

CAS Number	Compound	Elapsed Exposure Hour (µg/m²•hr)					
		6	24	48	72	96	168
108-05-4	Acetate, vinyl (Acetic acid ethenyl ester)†	420	150	120	74.6	52.9	21.8
143-08-8	1-Nonanol*	91.2	57.4	65.3	57.3	52.6	44.4
110453-78-6	(S)-(+)-6-Methyl-1-octanol*	47.3	27.8	29.7	25.4	22.7	18.3
104-76-7	1-Hexanol, 2-ethyl†	31.3	17.0	17.8	14.8	12.9	10.0
78-93-3	2-Butanone (Methyl ethyl ketone, MEK)†	31.3	12.7	10.9	6.1	5.0	
1653-40-3	1-Heptanol, 6-methyl	19.2	11.4	12.5	10.7	9.5	7.7
1632-16-2	Heptane, 3-methylene*	12.6	5.8				
13475-82-6	Heptane, 2,2,4,6,6-pentamethyl	11.6	6.0	5.3			
141-78-6	Acetate, ethyl	11.4					
6939-71-5	cis-Hexahydrophthalide*	11.0	7.9	10.1	9.5	9.5	9.5

Product Description	T Will 20 Series - Woven Vinyl Flooring 205

EMISSION FACTORS OF IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

CAS Number	Compound	Elapsed Exposure Hour (µg/m²•hr)					
		6	24	48	72	96	168
58175-57-8	2-Propyl-1-pentanol*	9.5	5.5	5.8	4.8		
818-81-5	1-Octanol, 2-methyl-*	8.2	5.0	5.5	5.0		
71-36-3	1-Butanol (N-Butyl alcohol)†	7.7					
123-86-4	Acetate, butyl	5.9					
1000061-84-1	3-Undecene, 5-methyl-*	5.6					
18450-74-3	1-Heptanol, 2,4-dimethyl-, (2S,4R)-(-)*	4.9					

*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.
Quantifiable level is 0.04 µg based on a standard 18 L air collection volume.

TABLE 5

Product Description	T Will 20 Series - Woven Vinyl Flooring 205

CHAMBER CONCENTRATIONS OF TARGET LIST ALDEHYDES

CAS Number	**Compound**	**Elapsed Exposure Hour (µg/m³)**						
		0 (BG)	**6**	**24**	**48**	**72**	**96**	**168**
4170-30-3	2-Butenal	BQL	BQL	BQL	BQL	BQL	BQL	BQL
75-07-0	Acetaldehyde	BQL	**94.1**	**31.9**	**19.2**	**11.3**	**7.2**	**2.5**
100-52-7	Benzaldehyde	BQL	BQL	BQL	BQL	BQL	BQL	BQL
5779-94-2	Benzaldehyde, 2,5-dimethyl	BQL	BQL	BQL	BQL	BQL	BQL	BQL
529-20-4	Benzaldehyde, 2-methyl	BQL	BQL	BQL	BQL	BQL	BQL	BQL
620-23-5 /104-87-0	Benzaldehyde, 3- and/or 4-methyl	BQL	BQL	BQL	BQL	BQL	BQL	BQL
123-72-8	Butanal	BQL	BQL	BQL	BQL	BQL	BQL	BQL
590-86-3	Butanal, 3-methyl	BQL	BQL	BQL	BQL	BQL	BQL	BQL
50-00-0	Formaldehyde	BQL	BQL	BQL	BQL	BQL	BQL	BQL
66-25-1	Hexanal	BQL	**2.5**	BQL	BQL	BQL	BQL	BQL
110-62-3	Pentanal	BQL	BQL	BQL	BQL	BQL	BQL	BQL
123-38-6	Propanal	BQL	BQL	BQL	BQL	BQL	BQL	BQL

TABLE 6

Product Description	T Will 20 Series - Woven Vinyl Flooring 205

EMISSION FACTORS OF TARGET LIST ALDEHYDES

CAS Number	**Compound**	**Elapsed Exposure Hour (µg/m²•hr)**					
		6	**24**	**48**	**72**	**96**	**168**
4170-30-3	2-Butenal	BQL	BQL	BQL	BQL	BQL	BQL
75-07-0	Acetaldehyde	**224**	**76.0**	**45.8**	**26.9**	**17.2**	**6.0**
100-52-7	Benzaldehyde	BQL	BQL	BQL	BQL	BQL	BQL
5779-94-2	Benzaldehyde, 2,5-dimethyl	BQL	BQL	BQL	BQL	BQL	BQL
529-20-4	Benzaldehyde, 2-methyl	BQL	BQL	BQL	BQL	BQL	BQL
620-23-5 /104-87-0	Benzaldehyde, 3- and/or 4-methyl	BQL	BQL	BQL	BQL	BQL	BQL
123-72-8	Butanal	BQL	BQL	BQL	BQL	BQL	BQL
590-86-3	Butanal, 3-methyl	BQL	BQL	BQL	BQL	BQL	BQL
50-00-0	Formaldehyde	BQL	BQL	BQL	BQL	BQL	BQL
66-25-1	Hexanal	**6.0**	BQL	BQL	BQL	BQL	BQL
110-62-3	Pentanal	BQL	BQL	BQL	BQL	BQL	BQL
123-38-6	Propanal	BQL	BQL	BQL	BQL	BQL	BQL

BQL = Below quantifiable level of 0.1 µg based on a standard 45 L air collection volume.

TABLE 7

SUPPLEMENTAL EMISSIONS INFORMATION

The table below represents this product's identified chemical emissions found on certain regulatory lists. This list only provides a statement regarding possible health effects associated with this compound and not the relative risks of exposure. Proper interpretation of the risks associated with exposure to a given regulated compound requires a more detailed evaluation of toxicological activity. Certain purchasing programs may require this information be submitted.

Product Description	T Will 20 Series - Woven Vinyl Flooring 205						
CAS Number	**Compound**	**✓() = FOUND IN LISTING (CLASS)**					
		CAL PROP. 65	**NTP**	**IARC**	**CAL AIR TOXICS**	**CREL**	**TLV**
71-36-3	1-Butanol (N-Butyl alcohol)†				✓(IVB)		✓
78-93-3	2-Butanone (Methyl ethyl ketone, MEK)†				✓(IIA)		✓
75-07-0	Acetaldehyde	✓(1)	✓(2B)	✓(2B)	✓(IIA)	✓	✓
123-86-4	Acetate, butyl						✓
141-78-6	Acetate, ethyl						✓
108-05-4	Acetate, vinyl (Acetic acid ethenyl ester)†			✓(2B)	✓(IIA)	✓	✓

†Denotes quantified using multipoint authentic standard curve

CAL Prop. 65: California Health and Welfare Agency, Proposition 65 Chemicals
1 = known to cause cancer
2 = known to cause reproductive toxicity

NTP: National Toxicology Program
2A = known to be carcinogenic to humans
2B = reasonably anticipated to be carcinogenic to humans

IARC: International Agency on Research of Cancer
1 = carcinogenic to humans
2A = probably carcinogenic to humans
2B = possibly carcinogenic to humans
3 = unclassifiable as to carcinogenicity to humans
4 = probably not carcinogenic to humans

California Air Toxics
I = Substances identified as Toxic Air Contaminants, known to be emitted in California, with a full set of health values reviewed by the Scientific Review Panel.
IIA = Substances identified as Toxic Air Contaminants, known to be emitted in California, with one or more health values under development by the Office of Environmental Health Hazard Assessment for review by the Scientific Review Panel.
IIB= Substances NOT identified as Toxic Air Contaminants, known to be emitted in California, with one or more health values under development by the Office of Environmental Health Hazard Assessment for review by the Scientific Review Panel.
III = Substances known to be emitted in California and are NOMINATED for development of health values or additional health values.
IVA = Substance identified as Toxic Air Contaminants, known to be emitted in California and are TO BE EVALUATED for entry into Category III.
IVBA =Substance NOT identified as Toxic Air Contaminants, known to be emitted in California and are TO BE EVALUATED for entry into Category III.
V = Substance identified as Toxic Air Contaminants, and NOT KNOWN TO BE EMITTED from stationary source facilities in California based on information from the AB 2588 Air Toxic "Hot Spots" Program and the California Toxic Release Inventory.
VI = Substances identified as Toxic Air Contaminants, NOT KNOWN TO BE EMITTED from stationary source facilities in California, and are active ingredients in pesticides in California.

CREL: California Office of Environmental Health's Hazard Assessment (OEHHA), Chronic Reference Exposure Levels
✓ = Found in Listing

ACGIH TLV American Conference of Governmental Industrial Hygienists Threshold Limit Values for Chemical Substances and Physical Agents.
✓ = Found in Listing.

CHAIN OF CUSTODY

SF3322812723309

90429

INTERNAL Use Only			
Project #	~~4784023137~~ 1000703768		
Product #	2307790		
Order #	12876883		
Task Line	2.1	UL BU	UL VS
___ _ of ______			

2307790

2307790

Description
... 20 Series - Woven Vinyl Flooring 205

Customer: KUNSHAN WAYTEX TEXTILE INDUSTR
Received Date: Aurora Project No.: 1000703768
2019-JUN-05 11:40:21 AM Order No.: 12876883
Oracle Project No.:
1 of 1

☐ *Rush Request – Subject to upcharge. Customer must confirm with UL prior to submitting product.*

GREENGUARD Test Information						
Test Type	☒ Certification Test • Annual/Initial Year 1				☐ Out-of-Scope Test	
	☐ Quarterly Test • Year Quarter				☐ Profile Study Test	
Service Line	☒ GREENGUARD	☒ GREENGUARD GOLD		☐ Other ______		
Test Group	Vinyl Flooring - 01					
Product Category	Flooring		Subcategory	Resilient		
Application	☐ Floor/Ceiling	☐ Pane	☐ Wall	☐ Work Surface	☐ Other: ______	
Wet Products Only	Coverage Rate		Density		Specific Gravity	

Product and Company Information			
Product Description	~~Sisal~~ 20 series - Woven Vinyl Flooring 205		
Manufacture ID#	T Will		
Company Name	KUNSHAN WAYTEX TEXTILE INDUSTRY CO.,LTD	Date Manufactured	5/28/2016
		Contact Name	Eric Hsieh
Address		Job Title	
		Contact Phone	
		Contact Email	ericheleh@fabric.com.tw

Collection Information			
Collector Name		Date Collected	5/31/2019
Collector Phone		Time Collected	
Collector Signature		Collection Location	

Shipping Information			
Carrier			
Shipper Name		Date Shipped	6/3/2019
Shipper Phone		Time Shipped	
Shipper Signature		Air Bill #	

Sample Submitted to			
☐ UL Environment (Marietta) 2211 Newmarket Pkwy Suite 106 Marietta, GA 30067, USA	☐ UL Verification Services (Guangzhou) Building A, 3F Nansha Science and Technology Innovation Ctr, No. 25, South Huandao Avenue, Nansha District, Guangzhou 511458, China	☐ UL International Italia S.r.l ATTN: AQ Laboratory Via Europa 9 I-22000 - Carlate (Como), Italia	☐ Other

Post Testing Sample Disposition (Sample will be disposed of 30 days after report is issued if information below is not provided)			
Return Shipping Co.	实验室处理	Customer Shipping Acct #	

Internal Use Only – Receiving Information				
Receiver Name			Receiver Signature	LL
Condition Upon Arrival	☑ Acceptable	☐ Not Acceptable	Receive Date	2019.6.5
Condition Notes			Receive Time	9:20
Completed By	L.F	Based On	Program Testing Schedule	Date 05/05/2019

00-EN-F0863 - Issue 5.0

APPENDIX 1

GREENGUARD GOLD RESULTS SUMMARY

Product Description	T Will 20 Series - Woven Vinyl Flooring 205			
COMPLIANCE WITH GREENGUARD GOLD STANDARD				
GREENGUARD Gold Acceptable IAQ Criteria		**168 Hour Predicted Concentration****		**Product Compliance for IAQ**
		Office	**Classroom**	
TVOC	**≤ 0.22 mg/m³**	0.054 mg/m³	0.047 mg/m³	Yes
Formaldehyde	**≤ 0.0073 ppm**	< 0.002 ppm	< 0.002 ppm	Yes
Total Aldehydes	**≤ 0.043 ppm**	0.002 ppm	0.002 ppm	Yes
1-Methyl-2-Pyrrolidinone	**≤ 0.16 mg/m³**	< 0.003 mg/m³	< 0.002 mg/m³	Yes
Individual VOCs	**≤ 1/100 TLV and ≤ ½ chronic REL**	See Below		

**Predicted Air Concentrations are based on GREENGUARD Gold modeling predicted concentration parameters.

TOP TEN MOST ABUNDANT IDENTIFIED VOCS, INCLUDING ALDEHYDES					
CAS Number	**Compound**	**168 Hour Chamber Concentration (µg/m³)**	**168 Hour Emission Factor (µg/m²•hr)**	**Predicted Air Concentration** (µg/m³)**	
				Office	**Classroom**
143-08-8	1-Nonanol*	18.6	44.4	24	21
108-05-4	Acetate, vinyl (Acetic acid ethenyl ester)†	9.2	21.8	12	10
110453-78-6	(S)-(+)-6-Methyl-1-octanol*	7.7	18.3	10	9
104-76-7	1-Hexanol, 2-ethyl†	4.2	10.0	5	5
6939-71-5	cis-Hexahydrophthalide*	4.0	9.5	5	4
1653-40-3	1-Heptanol, 6-methyl	3.2	7.7	4	4
75-07-0	Acetaldehyde‡	2.5	6.0	3	3

CHEMICALS OF CONCERN WITH EXISTING TLV, CREL, CA PROP 65 OR CAL TOXIC AIR CONTAMINANT VALUES									
CAS Number	**Compound**	**168 Hour Chamber Concentration (µg/m³)**	**168 Hour Emission Factor (µg/m²•hr)**	**168 Hour Predicted Concentration** (µg/m³)**		**✓ INDICATES PRESENCE ON LIST**			
				Office	**Classroom**	**CA PROP 65**	**CA TAC**	**CA CREL**	**ACGIH TLV**
75-07-0	Acetaldehyde‡	2.5	6.0	3	3	✓(1)	✓(IIA)	✓	✓
108-05-4	Acetate, vinyl (Acetic acid ethenyl ester)†	9.2	21.8	12	10		✓(IIA)	✓	✓

COMPARISON OF COMPOUNDS FOUND WITH EXISTING TLV AND/OR CHRONIC REL						
CAS Number	**Compound**	**1/100 TLV[a] (µg/m³)**	**½ CA Chronic REL[b] (µg/m³)**	**168 Hour Predicted Concentration** (µg/m³)**		**Product Compliance**
				Office	**Classroom**	
75-07-0	Acetaldehyde	450	70	3	3	Yes
108-05-4	Acetate, vinyl (Acetic acid ethenyl ester)	350	100	12	10	Yes

[a]American Conference of Governmental Industrial Hygienists. Threshold Limit Values for Chemical Substances and Physical Agents. Cincinnati, OH: ACGIH.

[b]Chronic Reference Exposure Levels (CRELs) adopted by the State of California Office of Environmental Health Hazard Assessment (OEHHA).

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

‡Indicates compound identified and quantified by DNPH derivitization and HPLC/UV analysis with multipoint authentic standard.

*Identification based on NIST mass spectral database only.

**Predicted Air Concentrations are based on modeling predicted concentration parameters shown above.