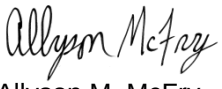
FIELD SAMPLING TEST REPORT	
Customer Information	LST.FAI.HBDCResults@ul.com UL Verification Services, Inc. 3251 Old Lee Highway, Suite 100 Fairfax, VA 22030
HB Project Number	2009049NY
Date Received	October 19, 2020
Testing Laboratory Location	UL Environment - Marietta, 2211 Newmarket Parkway, Marietta, GA 30067-9399 USA
Method	USEPA Compendium Method TO-17 ; ASTM 6196
Authorized by	 Allyson M. McFry Chemistry Laboratory Director

Sampling: Reported data were obtained from samples and sampling information as provided by the on-site investigator. These data and general information are provided to assist the investigator in an overall IAQ assessment. Interpretation of data is left to the client or persons who conducted the field work.

This test is accredited and meets the requirements of ISO/IEC 17025 as verified by ANSI National Accreditation Board. Refer to certificate and scope of accreditation AT-1297.

Date Issued: November 11, 2020
Product #: 1001053392-3387948
Report #: 1001053392-3387948

UL ID:	SV1TFD
Sample Date:	October 12, 2020
Volume (L):	18.2

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description	BURN_05_BR_04_3Day_AM
Total Volatile Organic Compounds	173 µg/m³

CAS Number	**Compound**	**Concentration**	
		µg/m³	**ppb**
98-56-6	Benzene, 1-chloro-4-(trifluoromethyl)-*	27.8	3.8
64-19-7	Acetic acid	22.7	9.2
100-42-5	Styrene†	22.5	5.3
116-09-6	2-Propanone, 1-hydroxy	14.9	4.9
77-68-9	Propanoic acid, 2-methyl-, 3-hydroxy-2,2,4-trimethylpentyl ester (component of Texanol)	14.1	1.6
66-25-1	Hexanal	9.0	2.2
91-20-3	Naphthalene†	8.7	1.7
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	8.6	1.0
694-47-3	4-Cyclopentene-1,3-diol, trans-*	5.4	1.3
98-86-2	Acetophenone (Ethanone, 1-phenyl)*	4.5	0.9
98-01-1	Furfural (2-Furaldehyde)	4.5	1.1
502-99-8	1,3,7-Octatriene, 3,7-dimethyl-*	4.3	0.8
108-88-3	Toluene (Methylbenzene)	4.1	1.1
42781-12-4	2-Propanone, 1-(1-methylethoxy)-*	4.1	0.9
108-95-2	Phenol†	4.0	1.0
90-05-1	Phenol, 2-methoxy*	3.3	0.6
95-13-6	Indene*	3.2	0.7
100-41-4	Benzene, ethyl†	3.1	0.7
98-83-9	a-Methylstyrene (iso-Propenylbenzene; (1-Methylethenyl)benzene)	2.9	0.6
71-41-0	1-Pentanol (N-Pentyl alcohol)	2.9	0.8
80-62-6	Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)	2.9	0.7
100-47-0	Benzonitrile	2.7	0.6
541-02-6	Cyclopentasiloxane, decamethyl	2.7	0.2
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	2.5	0.5
1330-20-7	Xylenes (Total) †	2.4	0.6
5989-27-5	D-Limonene*	2.3	0.4
53907-71-4	6-Hepten-3-ol, 4-methyl-*	2.1	0.4
769-78-8	Vinyl benzoate*	2.0	0.3
112-40-3	Dodecane†	2.0	0.3
100-52-7	Benzaldehyde	2.0	0.4

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UL ID:	SV1TFDF
Sample Date:	October 12, 2020
Volume (L):	18.0

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description	BURN_05_BR_04_3Day_Field Blank
Total Volatile Organic Compounds	BQL

CAS Number	Compound	Concentration	
		µg/m³	ppb
287-92-3	Cyclopentane	10.6	3.7

Date Issued: November 11, 2020
Product #: 1001053392-3387948
Report #: 1001053392-3387948

UL ID:	SV2TFD
Sample Date:	October 12, 2020
Volume (L):	17.6

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description	BURN_05_BR_04_3Day_PM
Total Volatile Organic Compounds	141 µg/m³

CAS Number	**Compound**	**Concentration**	
		µg/m³	**ppb**
100-42-5	Styrene†	18.3	4.3
98-56-6	Benzene, 1-chloro-4-(trifluoromethyl)-*	17.4	2.4
66-25-1	Hexanal	8.9	2.2
64-19-7	Acetic acid	7.4	3.0
116-09-6	2-Propanone, 1-hydroxy	7.2	2.4
91-20-3	Naphthalene†	6.7	1.3
42781-12-4	2-Propanone, 1-(1-methylethoxy)-*	6.4	1.4
77-68-9	Propanoic acid, 2-methyl-, 3-hydroxy-2,2,4-trimethylpentyl ester (component of Texanol)	6.2	0.7
98-86-2	Acetophenone (Ethanone, 1-phenyl)*	4.7	1.0
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	3.8	0.4
98-01-1	Furfural (2-Furaldehyde)	3.4	0.9
110-62-3	Pentanal	3.4	1.0
100-47-0	Benzonitrile	3.4	0.8
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	3.2	0.6
19549-87-2	1-Heptene, 2,4-dimethyl*	3.1	0.6
108-88-3	Toluene (Methylbenzene)	3.0	0.8
95-13-6	Indene*	3.0	0.6
30434-65-2	2-Cyclopenten-1-one, 3,4,4-trimethyl-*	2.9	2.9
71-36-3	1-Butanol (N-Butyl alcohol)	2.8	0.9
769-78-8	Vinyl benzoate*	2.8	0.5
98-83-9	a-Methylstyrene (iso-Propenylbenzene; (1-Methylethenyl)benzene)	2.8	0.6
80-62-6	Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)	2.8	0.7
767-60-2	1H-Indene, 3-methyl*	2.7	0.5
3944-37-4	1-Propanol, 2-(1-methylethoxy)-*	2.6	0.5
71-41-0	1-Pentanol (N-Pentyl alcohol)	2.5	0.7
71-43-2	Benzene†	2.5	0.8
541-02-6	Cyclopentasiloxane, decamethyl	2.4	0.2
111-76-2	Ethanol, 2-butoxy	2.4	0.5
100-41-4	Benzene, ethyl†	2.3	0.5
120-92-3	Cyclopentanone	2.3	0.7
5989-27-5	D-Limonene*	2.1	0.4
100-52-7	Benzaldehyde	2.1	0.5
1330-20-7	Xylenes (Total) †	2.0	0.5

Date Issued: November 11, 2020
Product #: 1001053392-3387948
Report #: 1001053392-3387948

UL ID:	SV3TFD
Sample Date:	October 12, 2020
Volume (L):	17.9

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description	BURN05_BR_04_3Day_60 min
Total Volatile Organic Compounds	275 µg/m³

CAS Number	**Compound**	**Concentration**	
		µg/m³	**ppb**
100-42-5	Styrene†	29.8	7.0
98-56-6	Benzene, 1-chloro-4-(trifluoromethyl)-*	26.6	3.6
64-19-7	Acetic acid	20.6	8.4
116-09-6	2-Propanone, 1-hydroxy	18.0	5.9
77-68-9	Propanoic acid, 2-methyl-, 3-hydroxy-2,2,4-trimethylpentyl ester (component of Texanol)	15.8	1.8
66-25-1	Hexanal	12.4	3.0
91-20-3	Naphthalene†	12.0	2.3
42781-12-4	2-Propanone, 1-(1-methylethoxy)-*	11.3	2.4
98-01-1	Furfural (2-Furaldehyde)	10.3	2.6
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	10.0	1.1
120-92-3	Cyclopentanone	9.2	2.7
98-86-2	Acetophenone (Ethanone, 1-phenyl)*	5.9	1.2
108-88-3	Toluene (Methylbenzene)	5.2	1.4
71-41-0	1-Pentanol (N-Pentyl alcohol)	5.0	1.4
90-05-1	Phenol, 2-methoxy*	5.0	1.0
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	4.7	0.9
98-83-9	a-Methylstyrene (iso-Propenylbenzene; (1-Methylethenyl)benzene)	4.5	0.9
95-13-6	Indene*	4.4	0.9
1072-82-8	3-Acetyl-1H-pyrroline*	4.3	1.0
57-55-6	1,2-Propanediol (Propylene glycol)	4.2	1.3
930-27-8	Furan, 3-methyl*	4.1	1.2
769-78-8	Vinyl benzoate*	4.0	0.7
100-47-0	Benzonitrile	4.0	0.9
541-02-6	Cyclopentasiloxane, decamethyl	4.0	0.3
627-08-7	Propane, 1-(1-methylethoxy)*	4.0	0.9
100-52-7	Benzaldehyde	3.5	0.8
300-57-2	Allylbenzene	3.5	0.7
80-56-8	Pinene, alpha (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	3.4	0.6
622-96-8	Benzene, 1-ethyl-4-methyl (4-Ethyltoluene)	3.4	0.7
100-41-4	Benzene, ethyl†	3.3	0.8
1330-20-7	Xylenes (Total) †	3.3	0.8
1000445-17-2	1,2-Dimethoxy-2-methylpropan-1-amine*	3.3	0.6
96-29-7	2-Butanone, oxime*	3.2	0.9
18641-70-8	3-Hexanone, 2,4-dimethyl*	3.0	0.6
123-86-4	Acetate, butyl	3.0	0.6

UL ID:	SV3TFD
Sample Date:	October 12, 2020
Volume (L):	17.9

CAS Number	Compound	Concentration	
		µg/m³	ppb
1000462-98-6	(-)-Isopinocampheol, trimethylacetate*	2.8	0.3
5989-27-5	D-Limonene*	2.7	0.5
3777-69-3	Furan, 2-pentyl	2.6	0.5
14593-43-2	Benzene, [(2-propenyloxy)methyl]-*	2.4	0.4
54410-98-9	1-Nonene, 4,6,8-trimethyl-*	2.3	0.3
142-96-1	n-Butyl ether	2.3	0.4
93-51-6	Phenol, 2-methoxy-4-methyl*	2.2	0.4
4826-62-4	2-Dodecenal*	2.1	0.3
5076-20-0	Oxirane, tetramethyl-*	2.1	0.5
10486-19-8	Tridecanal*	2.0	0.2
71-36-3	1-Butanol (N-Butyl alcohol)	2.0	0.6

TVOC (total volatile organic compounds) are calibrated relative to toluene.

Field Blanks: Reported concentrations based on 18.0 L of volume sampled for VOCs. Actual field blanks are not intended to have a measurable amount of air sampled.

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

Values below 2.0 µg/m³ are for information purposes only. Chemical was detected, but below the quantifiable level of 0.04 µg based on a standard of 18 L air collection volume.

UL Environment's quality assurance program monitors blank sorbent media to ensure that the residual background does not exceed UL Environment's quality objective of ≤ 36 ng of total VOC.

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Project # 2009049NY

1001053392 - 3387948

ACTIVE CHEMICAL SAMPLING CHAIN OF CUSTODY

Company: ULVS (Healthy Buildings)	Contact: CARESULTS@UL.COM	Project/P.O./Job Number: 2009049NY_B5_D3
Address: 3251 Old Lee Highway #100 Fairfax, VA 22030	Phone: 571.655.7919	Sample Date: 12OCT2020
	Fax: 703.323.4440	Investigator: SAM.HORNER

Please check the appropriate fields; Use separate COC for each sample method.	**VOLATILE ORGANICS: IVOC SCAN: _____ TOP 20 IVOC _____ TVOC ONLY _____ OTHER B.T.E.X.**	
	ALDEHYDE SCAN: _____ FORMALDEHYDE ONLY _____	**ANALYSIS: LEED V4 ___ LEED V4.1 ___ OTHER B.T.E.X.**
	TAT: Standard X Next Day Rush* _____ * Rush charges apply; please call in advance to confirm availability	

Comments:

UL ID	SAMPLE ID/ TUBE ID	SAMPLE LOCATION/ DESCRIPTION	START TIME	STOP TIME	TIME SAMPLED (MIN)	PUMP ID #	FLOW RATE (L/MIN)	VOLUME (L)
V01	2009049NY-05H/ s/n B26439	Burn_05_BR_04_3Day_AM	07:45	11:55	250	2018	0.073 L	18.18 L
V02	2009049NY-05J/ s/n B26594	Burn_05_BR_04_3Day_AM PM	12:15	16:17	242	2018	0.073 L	17.59 L
V03	2009049NY-05K/ s/n B27501	Burn_05_BR_04_3Day_60 min	12:20	13:20	60	4257	0.298 L	17.89 L
V01F	2009049NY-05L/ s/n B26467	Burn_05_BR_04_3Day_ Field Blank						n/a

Released By: SAM HORNER (Print/Sign)	Date/Time: 17OCT2020	Method of Shipment: UPS Nex	3387948 Description 2009049NY
Received By:	Date/Time: 10/19/20 10:45AM	Sample Condition: Acceptable	Customer: UL Environment Inc. Received Date: 2020-OCT-14 09:05:17 AM Aurora Project No.: 1001053392 Order No.: Oracle Project No.:

3387948

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Date Issued: November 11, 2020
Product #: 1001053392-3387948
Report #: 1001053392-3387948