




FIELD SAMPLING TEST REPORT	
Customer Information	UL VERIFICATION SERVICES, INC. LST.FAI.HBDCResults@ul.com 3251 Old Lee Highway, Suite 100 Fairfax VA 22030 USA
HB Project Number	201106NY_B17
Date Received	November 24, 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
<p>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.</p> <p>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.</p> <p>This report shall not be reproduced, except in full, without permission from UL. Results contained within this report only apply to the actual product tested under the testing conditions documented in this report.</p>	

Date Issued: December 15, 2020
Product #: 1001086264-3486287
Report #: 1001086264-3486287
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UL ID:	SV1TFDF
Sample Date:	November 20, 2020
Volume (L):	18.0

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description		B17_BR_04_Field Blank	
Total Volatile Organic Compounds		BQL	
CAS Number	Compound	Concentration	
		µg/m³	ppb
109-67-1	1-Pentene	3.2	1.1

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UL ID:	SV1TFD
Sample Date:	November 20, 2020
Volume (L):	17.5

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description		B17_BR_04_Pre	
Total Volatile Organic Compounds		649 µg/m³	
CAS Number	Compound	Concentration	
		µg/m³	ppb
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	286	32.4
541-02-6	Cyclopentasiloxane, decamethyl	70.8	4.7
108-88-3	Toluene (Methylbenzene)	21.5	5.7
91-20-3	Naphthalene	18.2	3.5
64-19-7	Acetic acid	18.1	7.4
111-76-2	Ethanol, 2-butoxy	16.5	3.4
77-68-9	Propanoic acid, 2-methyl-, 3-hydroxy-2,2,4-trimethylpentyl ester (component of Texanol)	15.6	1.8
80-56-8	Pinene, alpha (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	15.2	2.7
112-41-4	1-Dodecene	11.2	1.6
144-19-4	1,3-Pentanediol, 2,2,4-trimethyl	10.7	1.8
78-93-3	2-Butanone (Methyl ethyl ketone, MEK)	10.6	3.6
66-25-1	Hexanal	10.1	2.5
33240-56-1	Hexane, 1-chloro-5-methyl*	8.0	1.6
142-96-1	n-Butyl ether	7.7	1.4
108-95-2	Phenol	7.6	2.0
124-19-6	Nonyl aldehyde (Nonanal)	7.2	1.2
112445-69-9	Hexanoic acid, 2-ethyl-, nonyl ester*	7.0	0.6
18172-67-3	Bicyclo[3.1.1]heptane, 6.6-dimethyl-2-methylene-, (1S)-*	6.5	1.2
67-64-1	Acetone	6.3	2.7
112-53-8	1-Dodecanol*	5.7	0.8
98-01-1	Furfural (2-Furaldehyde)	5.3	1.3
92-52-4	1,1'-Biphenyl*	5.1	0.8
208-96-8	Acenaphthylene*	5.0	0.8
2682-20-4	3(2H)-Isothiazolone, 2-methyl-*	4.8	1.0
75-05-8	Acetonitrile	4.6	2.8
4526-06-1	Silane, 1,3-butadiynyltrimethyl-*	4.6	0.9
104-76-7	1-Hexanol, 2-ethyl	4.2	0.8
149-57-5	Hexanoic acid, 2-ethyl	4.2	0.7
1000099-98-7	1-Ethylpropyl 2-ethylhexanoate*	4.1	0.5
109-67-1	1-Pentene	4.1	1.4
71-36-3	1-Butanol (N-Butyl alcohol)	4.1	1.4
91-57-6	Naphthalene, 2-methyl	4.0	0.7
540-97-6	Cyclohexasiloxane, dodecamethyl	3.8	0.2
57658-79-4	Imidazole, 1,4-dimethyl-5-nitro-*	3.6	2.2
10032-15-2	Butanoic acid, 2-methyl-, hexyl ester*	3.5	0.5

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CAS Number	Compound	Concentration	
		µg/m³	ppb
57-55-6	1,2-Propanediol (Propylene glycol)	3.3	1.1
100-42-5	Styrene	3.2	0.8
142-62-1	Hexanoic acid	3.2	0.7
615-90-7	1,4-Benzenediol, 2,5-dimethyl-*	3.2	0.6
100-52-7	Benzaldehyde	3.0	0.7
1000192-65-0	Octane, 2,3,6,7-tetramethyl-*	3.0	0.3
71-41-0	1-Pentanol (N-Pentyl alcohol)	2.9	0.8
112-31-2	Decanal*	2.9	0.5
112-29-8	Decane, 1-bromo*	2.8	0.3
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	2.8	0.5
544-76-3	Hexadecane (Cetane)	2.8	0.3
95-48-7	Phenol, 2-methyl*	2.7	0.6
110-93-0	5-Hepten-2-one, 6-methyl	2.7	0.5
4926-90-3	Cyclohexane, 1-ethyl-1-methyl*	2.5	0.5
1000406-96-0	Hydratropic acid, undec-2-en-1-yl ester*	2.4	0.2
110-62-3	Pentanal	2.4	0.7
112-40-3	Dodecane	2.2	0.3
141-63-9	Pentasiloxane, dodecamethyl	2.1	0.1
111-87-5	1-Octanol	2.1	0.4
123-86-4	Acetate, butyl	2.0	0.4
78-70-6	3,7-Dimethyl-1,6-octadien-3-ol (Linalool)	2.0	0.3

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UL ID:	SV2TFD
Sample Date:	November 20, 2020
Volume (L):	18.2

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description		B17_BR_04_Post	
Total Volatile Organic Compounds		757 µg/m³	
CAS Number	Compound	Concentration	
		µg/m³	ppb
71-43-2	Benzene	71.3	22.3
91-20-3	Naphthalene	50.7	9.7
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	38.7	4.4
100-42-5	Styrene	38.3	9.0
1330-20-7	Xylenes (Total)	33.5	7.7
98-01-1	Furfural (2-Furaldehyde)	32.1	8.2
80-62-6	Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)	26.7	6.5
108-88-3	Toluene (Methylbenzene)	24.9	6.6
78-94-4	Methyl vinyl ketone (3-Buten-2-one)	15.7	5.5
100-52-7	Benzaldehyde	14.5	3.3
78-93-3	2-Butanone (Methyl ethyl ketone, MEK)	14.0	4.8
71-36-3	1-Butanol (N-Butyl alcohol)	13.9	4.6
1000314-63-5	Carbonic acid. butyl octyl ester*	13.3	1.4
80-56-8	Pinene, alpha (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	12.4	2.2
30434-65-2	2-Cyclopenten-1-one, 3,4,4-trimethyl-*	12.1	2.4
100-41-4	Benzene, ethyl	11.9	2.7
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	11.8	2.2
66-25-1	Hexanal	11.2	2.7
1000190-92-2	Acetic acid, 2-methylene-bicyclo[3.2.1]oct-6-en-8-yl ester*	10.8	1.5
930-27-8	Furan, 3-methyl*	10.7	3.2
108-95-2	Phenol	10.6	2.8
98-86-2	Acetophenone (Ethanone, 1-phenyl)*	9.5	1.9
100-47-0	Benzonitrile	8.7	2.1
618-40-6	Hydrazine, 1-methyl-1-phenyl-*	8.4	1.7
93-51-6	Phenol, 2-methoxy-4-methyl*	8.0	1.4
498-07-7	1,6-Anhydro-.beta.-D-glucopyranose (levoglucosan)*	7.9	1.2
64-19-7	Acetic acid	7.6	3.1
106-44-5	Phenol, 4-methyl (p-Cresol)*	7.2	1.6
120-92-3	Cyclopentanone	7.1	2.0
91-57-6	Naphthalene, 2-methyl	7.0	1.2
92-52-4	1,1'-Biphenyl*	6.8	1.1
600-14-6	2,3-Pentanedione*	6.4	1.6
5989-27-5	D-Limonene*	6.2	1.1
98-00-0	2-Furanmethanol*	6.2	1.5

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Sample Date:	November 20, 2020
Volume (L):	18.2

CAS Number	Compound	Concentration	
		µg/m³	ppb
95-13-6	Indene*	6.1	1.3
208-96-8	Acenaphthylene*	6.1	1.0
872-05-9	1-Decene	6.0	1.0
123-86-4	Acetate, butyl	5.8	1.2
95-48-7	Phenol, 2-methyl*	5.7	1.3
74370-93-7	2-Amino-4-tertbutylthiazole*	5.5	0.9
110-86-1	Pyridine	5.5	1.7
620-02-0	2-Furancarboxaldehyde, 5-methyl*	5.3	1.2
1632-16-2	Heptane, 3-methylene*	5.2	1.1
67-64-1	Acetone	5.1	2.2
19549-87-2	1-Heptene, 2,4-dimethyl*	4.9	0.9
541-02-6	Cyclopentasiloxane, decamethyl	4.8	0.3
2216-34-4	Octane, 4-methyl*	4.8	0.9
111-76-2	Ethanol, 2-butoxy	4.5	0.9
111-84-2	Nonane	4.5	0.9
294-62-2	Cyclododecane	4.4	0.6
142-62-1	Hexanoic acid	4.4	0.9
4265-25-2	Benzofuran, 2-methyl*	4.3	0.8
814-78-8	3-Buten-2-one, 3-methyl*	4.1	1.2
637-50-3	Benzene, 1-propenyl-*	4.0	0.8
1121-05-7	2-Cyclopenten-1-one, 2,3-dimethyl-*	3.9	0.9
4170-30-3	2-Butenal	3.9	1.4
1000433-24-4	Heptyl 2-ethylbutyrate*	3.9	0.4
74419-68-4	Histamine, N-benzoyl-2-cyano-*	3.8	0.4
119-65-3	Isoquinoline*	3.7	0.7
1000210-02-4	3-Phenylhex-5-en-3-ol*	3.7	0.5
1192-62-7	Ethanone, 1-(2-furanyl)*	3.7	0.8
89-71-4	Benzoic acid, 2-methyl-, methyl ester*	3.6	0.6
109-69-3	Butane, 1-chloro	3.6	1.0
5077-67-8	1-Hydroxy-2-butanone*	3.6	1.0
2785-89-9	Phenol, 4-ethyl-2-methoxy*	3.6	0.6
74339-53-0	Trichloroacetic acid, pentadecyl ester*	3.5	0.2
71-41-0	1-Pentanol (N-Pentyl alcohol)	3.4	0.9
77515-67-4	4-(2,5-Dihydro-3-methoxyphenyl)butylamine*	3.3	0.4
2226-05-3	Ethanol, 2-(3,3-dimethylbicyclo[2.2.1]hept-2-ylidene)-*	3.3	0.5
1000309-61-7	Oxalic acid, 4-chlorophenyl hexadecyl ester*	3.2	0.2
91337-07-4	2-Isopropyl-5-methyl-1-heptanol*	3.1	0.4
1000309-57-5	Oxalic acid, 2-isopropylphenyl pentadecyl ester*	3.1	0.2
105-30-6	1-Pentanol, 2-methyl*	3.1	0.7
40123-34-0	2,6-Dimethoxyphenyl-.beta.-phenylpropionate*	3.0	0.3
142-96-1	n-Butyl ether	2.9	0.5
40771-26-4	1,5-Dihydroxy-1,2,3,4-tetrahydronaphthalene*	2.8	0.4
4370-02-9	1H-Indene-1,2-diol, 2,3-dihydro-*	2.8	0.5
10574-37-5	2-Pentene, 2,3-dimethyl	2.7	0.7
109-67-1	1-Pentene	2.7	0.9

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UL ID:	SV2TFD
Sample Date:	November 20, 2020
Volume (L):	18.2

CAS Number	Compound	Concentration	
		µg/m³	ppb
42781-12-4	2-Propanone, 1-(1-methylethoxy)-*	2.7	0.6
121-33-5	Vanillin (Benzaldehyde, 4-hydroxy-3-methoxy-)*	2.7	0.4
19150-21-1	3-Decene, trans*	2.6	0.4
123-91-1	1,4-Dioxane	2.5	0.7
3102-33-8	3-Penten-2-one, (E)-*	2.4	0.7
106-21-8	1-Octanol, 3,7-dimethyl	2.3	0.4
5911-04-6	Nonane, 3-methyl	2.2	0.4
631-61-8	Ammonium acetate*	2.2	0.7
544-10-5	Hexane, 1-chloro*	2.1	0.4
1002-69-3	Decane, 1-chloro*	2.1	0.3
5921-82-4	2-Heptanol, acetate*	2.1	0.3
600-22-6	Propanoic acid, 2-oxo-, methyl ester*	2.0	0.5

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UL ID:	SV3TFD
Sample Date:	November 20, 2020
Volume (L):	21.9

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description		B17_BR_04_HZA	
Total Volatile Organic Compounds		6,460 µg/m³	
CAS Number	Compound	Concentration	
		µg/m³	ppb
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	189	21.4
71-43-2	Benzene	189	59.0
107-06-2	Ethane, 1,2-dichloro	185	45.7
64-19-7	Acetic acid	179	73.0
91-10-1	Phenol, 2,6-dimethoxy*	146	23.1
92-52-4	1,1'-Biphenyl*	143	22.7
91-20-3	Naphthalene	140	26.8
120-80-9	1,2-Benzenediol*	130	28.9
93-51-6	Phenol, 2-methoxy-4-methyl*	124	21.9
98-01-1	Furfural (2-Furaldehyde)	118	30.1
5932-68-3	trans-Isoeugenol*	112	16.7
100-42-5	Styrene	110	25.7
621-58-9	Phenol, 5-ethenyl-2-methoxy-*	108	17.7
1330-20-7	Xylenes (Total)	101	23.2
108-88-3	Toluene (Methylbenzene)	101	26.7
109-99-9	Furan, tetrahydro (THF)	99.1	33.6
208-96-8	Acenaphthylene*	98.1	15.8
100-52-7	Benzaldehyde	96.0	22.1
80-71-7	2-Cyclopenten-1-one, 2-hydroxy-3-methyl-*	94.6	20.6
90-05-1	Phenol, 2-methoxy*	93.4	18.4
6638-05-7	3,5-Dimethoxy-4-hydroxytoluene*	93.4	13.6
20481-17-8	5-tert-Butylpyrogallol*	93.1	12.5
108-95-2	Phenol	92.7	24.1
106-44-5	Phenol, 4-methyl (p-Cresol)*	92.2	20.9
65-85-0	Benzoic Acid*	89.8	18.0
598-32-3	3-Buten-2-ol*	83.4	28.3
95-13-6	Indene*	82.4	17.4
2295-58-1	Flopropione*	78.9	10.6
98-86-2	Acetophenone (Ethanone, 1-phenyl)*	74.6	15.2
98-00-0	2-Furanmethanol*	74.5	18.6
90-00-6	Phenol, 2-ethyl*	72.0	14.4
120-92-3	Cyclopentanone	69.0	20.1
1117-96-0	Ethane, diazo*	68.8	30.0
579-07-7	1,2-Propanedione, 1-phenyl	67.7	11.2
100-41-4	Benzene, ethyl	66.4	15.3
130876-97-0	8-Decen-2-one, 9-methyl-5-methylene-*	65.3	8.9
271-89-6	Benzofuran*	64.8	13.4

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CAS Number	Compound	Concentration	
		µg/m³	ppb
98-83-9	a-Methylstyrene (iso-Propenylbenzene; (1-Methylethenyl)benzene)	63.1	13.0
80-62-6	Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)	62.8	15.3
100-47-0	Benzonitrile	60.8	14.4
59832-96-1	Guaiacol, 4-butyl-*	57.1	7.8
827-54-3	Naphthalene, 2-vinyl	57.1	9.1
934-00-9	1,2-Benzenediol, 3-methoxy-*	57.0	9.9
2785-89-9	Phenol, 4-ethyl-2-methoxy*	55.4	8.9
930-27-8	Furan, 3-methyl*	55.3	16.5
1638-16-0	2-Propanol, 1,1'-[(1-methyl-1,2-ethanediyl)bis(oxy)]bis*	54.8	7.0
91337-07-4	2-Isopropyl-5-methyl-1-heptanol*	54.6	7.7
91-57-6	Naphthalene, 2-methyl	53.3	9.2
501-19-9	3-Allyl-6-methoxyphenol*	52.7	7.8
102-96-5	Benzene, (2-nitroethenyl)-*	51.5	8.4
3913-02-8	1-Octanol, 2-butyl-*	51.1	6.7
110-86-1	Pyridine	50.5	15.6
95-48-7	Phenol, 2-methyl*	46.1	10.4
95-65-8	Phenol, 3,4-dimethyl-*	44.6	8.9
80-56-8	Pinene, alpha (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	43.2	7.7
1000098-14-8	1,4:3,6-Dianhydro-.alpha.-d-glucopyranose*	42.3	7.2
611-15-4	Benzene, 1-ethenyl-2-methyl-*	42.0	8.7
1000373-16-5	1-Piperidin-1-ylpropan-2-yl acetate*	40.8	5.4
1000282-66-9	Bromoacetic acid, 2-ethylcyclohexyl ester*	40.8	4.0
10059-13-9	2-Undecanethiol, 2-methyl*	39.8	4.8
5441-52-1	Cyclohexanol, 3,5-dimethyl*	38.6	7.4
3008-40-0	1,2-Cyclopentanedione*	37.7	9.4
123-31-9	1,4-Benzenediol (Hydroquinone)*	37.7	8.4
488-17-5	1,2-Benzenediol, 3-methyl-*	37.1	7.3
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	36.6	7.0
1121-05-7	2-Cyclopenten-1-one, 2,3-dimethyl-*	36.5	8.1
86711-78-6	2- Chloropropionic acid, decyl ester*	35.5	3.7
90-15-3	1-Naphthalenol*	34.8	5.9
14694-19-0	2,3-Dihydrofuro(2,3-b)quinoline*	34.6	4.9
592-20-1	2-Propanone, 1-(acetyloxy)-*	33.9	7.1
575-41-7	Naphthalene, 1,3-dimethyl-*	33.9	5.3
600-22-6	Propanoic acid, 2-oxo-, methyl ester*	33.4	8.0
52095-40-6	1-(2-Vinylphenyl)ethanone*	33.1	5.5
3544-25-0	4-Aminobenzyl cyanide*	33.1	6.1
620-02-0	2-Furancarboxaldehyde, 5-methyl*	32.5	7.2
625-86-5	Furan, 2,5-dimethyl-*	31.8	8.1
78-94-4	Methyl vinyl ketone (3-Buten-2-one)	31.7	11.1
105-67-9	Phenol, 2,4-dimethyl	31.1	6.2
6929-08-4	Undecanol-3*	30.9	4.4

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Volume (L):	21.9

CAS Number	Compound	Concentration	
		µg/m³	ppb
496-11-7	Indane	30.9	6.4
99-94-5	Benzoic acid, 4-methyl-*	30.8	5.5
111-76-2	Ethanol, 2-butoxy	29.8	6.2
821-95-4	1-Undecene	29.7	4.7
94-33-7	1,2-Ethanediol, monobenzoate*	26.5	3.9
15677-15-3	Cycloprop[a]indene, 1,1a,6,6a-tetrahydro-*	26.2	5.0
85-41-6	1H-Isoindole-1,3(2H)-dione*	25.9	4.3
6100-74-9	Ethanone, 1-(3-hydroxy-4-methoxyphenyl)-*	25.6	3.8
42781-12-4	2-Propanone, 1-(1-methylethoxy)-*	24.7	5.2
2437-56-1	1-Tridecene	24.5	3.3
5077-67-8	1-Hydroxy-2-butanone*	24.2	6.7
1120-73-6	2-Cyclopenten-1-one, 2-methyl*	24.0	6.1
110-87-2	2H-Pyran, 3,4-dihydro*	22.5	6.5
2631-40-5	Phenol, 2-(1-methylethyl)-, methylcarbamate*	22.3	2.8
1000381-75-8	Glycerol, 1-tert-butyl ether*	22.1	3.6
78-93-3	2-Butanone (Methyl ethyl ketone, MEK)	21.1	7.2
96-54-8	1H-Pyrrole, 1-methyl-*	21.1	6.4
68-12-2	Formamide, N,N-dimethyl*	20.8	7.0
541-05-9	Cyclotrisiloxane, hexamethyl	20.5	2.3
96-33-3	2-Propenoic acid, methyl ester*	19.6	5.6
6443-69-2	Benzene, 1,2,3-trimethoxy-5-methyl-*	18.8	2.5
637-50-3	Benzene, 1-propenyl-*	18.5	3.8
34780-45-5	Cyclohexane, 1-ethenyl-2-methyl-, trans-*	18.0	3.5
6124-79-4	4-Methyl-5H-furan-2-one*	17.8	4.4
1142-85-4	Alpha-terpinyl isovalerate*	17.6	1.8
14657-22-8	Silane, trimethyl-1,2-propadienyl-*	16.9	3.7
109-08-0	Pyrazine, methyl*	16.5	4.3
1000452-56-4	DL-Lactamide, propyl ether*	16.5	3.1
66442-97-5	4,4-Ethylenedioxy-1-pentylamine*	16.4	8.9
6750-34-1	1-Dodecanol, 3,7,11-trimethyl*	16.1	1.7
66-25-1	Hexanal	16.1	3.9
124-07-2	Octanoic Acid*	15.9	2.7
814-78-8	3-Buten-2-one, 3-methyl*	15.7	4.6
105-30-6	1-Pentanol, 2-methyl*	15.0	3.6
116141-68-5	5,5-Dimethyl-1,3-dioxane-2-ethano*	15.0	2.3
502-41-0	Cycloheptanol*	14.9	3.2
105-38-4	Propanoic acid, ethenyl ester*	13.0	3.2
930-89-2	Cyclopentane, 1-ethyl-2-methyl, cis*	12.2	2.7
107-21-1	1,2-Ethanediol (Ethylene glycol)	12.2	4.8
110-47-4	Propanenitrile, 3-(1-methylethoxy)-*	12.1	2.6
4265-25-2	Benzofuran, 2-methyl*	12.1	2.2
20497-95-4	Propanoic acid, 3-nitro-, methyl ester*	11.5	8.5
627-42-9	2-Chloroethyl methyl ether*	10.8	2.8
930-52-9	1H-Imidazole, 2-ethyl-4,5-dihydro-*	9.8	2.4
67-64-1	Acetone	9.5	4.0
3208-16-0	Furan, 2-ethyl	9.3	2.4

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 Product #: 1001086264-3486287
 Report #: 1001086264-3486287
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UL ID:	SV3TFD
Sample Date:	November 20, 2020
Volume (L):	21.9

CAS Number	Compound	Concentration	
		µg/m³	ppb
646-06-0	1,3-Dioxolane	8.4	2.8
6137-06-0	2-Heptanone, 4-methyl*	7.5	1.4
4432-77-3	N-tert-Butylethylamine*	7.3	1.8
98-82-8	Benzene, 1-methylethyl (Cumene)	7.2	1.5
290-37-9	Pyrazine	6.6	2.0
126-98-7	2-Propenenitrile, 2-methyl-*	6.5	2.4
109-06-8	Pyridine, 2-methyl (2-Picoline)*	6.4	1.7
7446-09-5	Sulfur dioxide	6.2	2.4
79-10-7	2-Propenoic acid (Acrylic acid)	6.0	2.0
111-84-2	Nonane	5.4	1.0
1193-11-9	1,3-Dioxolane, 2,2,4-trimethyl*	5.1	1.1
617-83-4	Diethylcyanamide*	4.9	1.2
79-20-9	Acetate, methyl (Acetic acid, methyl ester)	4.6	1.5
2384-90-9	1,2-Heptadiene*	4.5	1.1
32804-79-8	2-Methoxyisopropyl cyanoacetate*	3.6	0.6
115-11-7	1-Propene, 2-methyl	3.4	1.5
591-78-6	2-Hexanone	3.1	0.7
4177-16-6	Pyrazine, ethenyl*	2.9	0.7
78-85-3	2-Propenal, 2-methyl	2.9	1.0
623-43-8	2-Butenoic acid, methyl ester, (E)*	2.7	0.7

Date Issued: December 15, 2020
 Product #: 1001086264-3486287
 Report #: 1001086264-3486287
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UL ID:	SV4TFD
Sample Date:	November 20, 2020
Volume (L):	7.0

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description		B17_House_A_FP	
Total Volatile Organic Compounds		5,010 µg/m³	
CAS Number	Compound	Concentration	
		µg/m³	ppb
71-43-2	Benzene	468	147
100-42-5	Styrene	232	54.5
2490-48-4	1-Hexadecanol, 2-methyl-*	231	22.1
108-88-3	Toluene (Methylbenzene)	180	47.7
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	154	17.5
80-62-6	Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)	142	34.6
71-36-3	1-Butanol (N-Butyl alcohol)	115	37.9
3458-28-4	d-Mannose*	115	15.6
64-19-7	Acetic acid	110	44.7
98-01-1	Furfural (2-Furaldehyde)	96.3	24.5
91-20-3	Naphthalene	93.7	17.9
1330-20-7	Xylenes (Total)	91.8	21.1
1000130-99-3	Z-10-Tetradecen-1-ol acetate*	89.0	8.6
1000314-63-4	Carbonic acid, butyl heptyl ester*	86.0	9.7
107-06-2	Ethane, 1,2-dichloro	85.2	21.0
19549-87-2	1-Heptene, 2,4-dimethyl*	79.5	15.4
100-52-7	Benzaldehyde	76.2	17.6
65-85-0	Benzoic Acid*	71.0	14.2
116-09-6	2-Propanone, 1-hydroxy	68.5	22.6
109-69-3	Butane, 1-chloro	63.7	16.8
4170-30-3	2-Butenal	60.8	21.2
6232-48-0	Acephenanthrylene, 4,5-dihydro-*	60.4	7.2
1000279-52-8	Cyclohexanecarboxylic acid, 2-ethylcyclohexyl ester*	59.5	6.1
50-99-7	Glucose*	57.3	7.8
1638-16-0	2-Propanol, 1,1'-[(1-methyl-1,2-ethanediyl)bis(oxy)]bis*	56.3	7.2
100-41-4	Benzene, ethyl	55.7	12.8
112-27-6	Tri(ethylene glycol) (2,2'-[1,2-Ethanediylbis(oxy)]bis ethanol)*	55.5	9.0
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	54.2	10.3
18979-50-5	Phenol, 4-propoxy-*	50.7	8.2
1000210-19-4	2-Amino-6-methyl-6,7-dihydro-9H-5-oxa-9-azabenzocyclohepten-8-one*	50.1	6.4
7287-82-3	1-(2-Methylphenyl)ethanol*	49.7	8.9
108-95-2	Phenol	44.3	11.5
40123-34-0	2,6-Dimethoxyphenyl-.beta.-phenylpropionate*	41.9	3.6

Date Issued: December 15, 2020
 Product #: 1001086264-3486287
 Report #: 1001086264-3486287
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UL ID:	SV4TFD
Sample Date:	November 20, 2020
Volume (L):	7.0

CAS Number	Compound	Concentration	
		µg/m³	ppb
1000154-76-8	.alpha.-d-Riboside, 1-O-dodecyl-*	40.4	3.1
2022-85-7	Flucytosine*	39.9	7.6
85-41-6	1H-Isoindole-1,3(2H)-dione*	39.7	6.6
122210-60-0	1,3-Dimethylpiperidin-4-ol*	37.9	7.2
78-94-4	Methyl vinyl ketone (3-Buten-2-one)	37.6	13.1
77-99-6	Trimethylolpropane (1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-)*	37.5	6.8
65051-83-4	Benzene, (1-methyl-2-cyclopropen-1-yl)-*	36.5	6.9
2549-59-9	2-Oxepanone, 7-methyl-*	35.6	6.8
541-02-6	Cyclopentasiloxane, decamethyl	34.3	2.3
112-60-7	Ethanol, 2,2'-[oxybis(2,1-ethanediyl)]bis-*	33.9	4.3
1000293-41-8	4-Cyanobenzoic acid, 6-ethyl-3-octyl ester*	33.9	2.9
92-52-4	1,1'-Biphenyl*	32.5	5.2
59832-96-1	Guaiacol, 4-butyl-*	32.4	4.4
93-51-6	Phenol, 2-methoxy-4-methyl*	32.3	5.7
767-54-4	Cyclohexanol, 3,3,5-trimethyl-, trans-*	30.0	5.2
95-13-6	Indene*	29.9	6.3
203-64-5	4H-Cyclopenta[def]phenanthrene*	29.3	3.8
99-94-5	Benzoic acid, 4-methyl-*	28.6	5.1
100-47-0	Benzonitrile	28.3	6.7
17325-90-5	4-Hexen-3-one, 4,5-dimethyl-*	28.2	5.5
80-56-8	Pinene, alpha (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	27.1	4.9
1000280-48-3	Dichloroacetic acid, tridecyl ester*	26.9	2.1
3944-37-4	1-Propanol, 2-(1-methylethoxy)-*	26.9	5.6
2425-10-7	Phenol, 3,4-dimethyl-, methylcarbamate*	24.6	3.4
628-55-7	Isobutyl ether*	24.2	4.5
124-07-2	Octanoic Acid*	24.1	4.1
105-30-6	1-Pentanol, 2-methyl*	23.8	5.7
4224-70-8	Hexanoic acid, 6-bromo-*	23.7	3.0
66-25-1	Hexanal	23.6	5.7
98-86-2	Acetophenone (Ethanone, 1-phenyl)*	23.3	4.7
1000191-08-0	1-Hydroxy-4,4-dimethylcyclohexanecarbonitrile*	22.2	3.5
56500-48-2	3-Methyl-2-butenic acid, 3-phenylpropyl ester*	21.8	2.4
108-61-2	1-Propanol, 2,2'-oxybis-*	21.8	4.0
1000406-86-7	Butyric acid, 2-phenyl-, dodec-2-en-1-yl ester*	21.6	1.6
56282-27-0	2-Propanol, 1-(isooctyloxy)-2-methyl-*	21.5	2.6
121-33-5	Vanillin (Benzaldehyde, 4-hydroxy-3-methoxy-)*	21.2	3.4
3102-33-8	3-Penten-2-one, (E)-*	20.9	6.1
110-86-1	Pyridine	20.7	6.4
78-93-3	2-Butanone (Methyl ethyl ketone, MEK)	20.1	6.8
5989-27-5	D-Limonene*	20.1	3.6
57-55-6	1,2-Propanediol (Propylene glycol)	19.9	6.4
2754-27-0	Silanol, trimethyl-, acetate*	19.5	3.6
42781-12-4	2-Propanone, 1-(1-methylethoxy)-*	18.6	3.9
534-22-5	Furan, 2-methyl-*	18.6	5.5

Date Issued: December 15, 2020
 Product #: 1001086264-3486287
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UL ID:	SV4TFD
Sample Date:	November 20, 2020
Volume (L):	7.0

CAS Number	Compound	Concentration	
		µg/m³	ppb
1000349-09-2	Malonic acid, 2-decyl hexyl ester*	18.5	1.4
65080-66-2	Cyclohexanecarboxaldehyde, 3,3-dimethyl-5-oxo-*	18.5	2.9
20407-84-5	2-Dodecenal, (E)-*	18.5	2.5
21078-65-9	1-Decanol, 2-ethyl	17.4	2.3
452-86-8	1,2-Benzenediol, 4-methyl-*	17.2	3.4
29911-28-2	2-Propanol, 1-(2-butoxy-1-methylethoxy)-(Dipropylene glycol monobutyl ether)	17.1	2.2
1000129-98-9	2,3-Anhydro-d-galactosan*	16.9	2.9
10574-37-5	2-Pentene, 2,3-dimethyl	16.9	4.2
625-86-5	Furan, 2,5-dimethyl-*	16.6	4.2
111-76-2	Ethanol, 2-butoxy	16.5	3.4
79-10-7	2-Propenoic acid (Acrylic acid)	16.0	5.4
24199-46-0	6-Methyl-5-octen-2-one*	15.8	2.7
814-78-8	3-Buten-2-one, 3-methyl*	15.7	4.6
27583-37-5	1,2-Cyclopentanediol, 3-methyl-*	15.7	3.3
2936-08-5	2,2-di-n-Propylacetyl chloride*	15.6	2.3
91-57-6	Naphthalene, 2-methyl	15.2	2.6
99-93-4	Acetophenone, 4'-hydroxy-*	14.9	2.7
2785-89-9	Phenol, 4-ethyl-2-methoxy*	14.6	2.3
55170-80-4	1-Decene, 2,4-dimethyl*	13.2	1.9
111-14-8	Heptanoic acid*	12.9	2.4
102-96-5	Benzene, (2-nitroethenyl)-*	12.7	2.1
930-89-2	Cyclopentane, 1-ethyl-2-methyl, cis*	12.7	2.8
98-82-8	Benzene, 1-methylethyl (Cumene)	12.5	2.5
930-27-8	Furan, 3-methyl*	12.3	3.7
7785-53-7	3-Cyclohexene-1-methanol, .alpha.,.alpha.,4-trimethyl-, (R)-*	11.1	1.8
5947-36-4	Bicyclo[3.1.1]heptan-3-ol, 6,6-dimethyl-2-methylene-*	10.9	1.7
290-37-9	Pyrazine	10.9	3.3
6137-06-0	2-Heptanone, 4-methyl*	10.7	2.0
645-92-1	1,3,5-Triazin-2(1H)-one, 4,6-diamino-*	10.6	2.0
140-11-4	Acetic acid, phenylmethyl ester (Benzyl acetate)	10.3	1.7
120-92-3	Cyclopentanone	10.0	2.9
589-53-7	Heptane, 4-methyl	9.5	2.0
78-85-3	2-Propenal, 2-methyl	8.7	3.0
106-44-5	Phenol, 4-methyl (p-Cresol)*	8.7	2.0
496-11-7	Indane	8.7	1.8
6975-85-5	2-Butanone, 4-methoxy-*	8.4	2.0
1000372-75-0	(Z)-Hex-3-enyl isobutyl carbonate*	8.4	1.0
3208-16-0	Furan, 2-ethyl	7.6	1.9
1703-52-2	Furan, 2-ethyl-5-methyl-*	7.3	1.6
96-33-3	2-Propenoic acid, methyl ester*	6.8	1.9
1120-73-6	2-Cyclopenten-1-one, 2-methyl*	6.7	1.7
32749-94-3	Pentanal, 2,3-dimethyl*	6.3	1.3

Date Issued: December 15, 2020
 Product #: 1001086264-3486287
 Report #: 1001086264-3486287
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UL ID:	SV4TFD
Sample Date:	November 20, 2020
Volume (L):	7.0

CAS Number	Compound	Concentration	
		µg/m³	ppb
3681-71-8	3-Hexen-1-ol, acetate, (Z)-*	5.7	1.0
542-59-6	Ethylene glycol monoacetate	5.6	1.3
6443-92-1	(Z)-2-Heptene*	5.0	1.3
2384-90-9	1,2-Heptadiene*	4.9	1.3
554-12-1	Propanoic acid, methyl ester*	4.7	1.3
1193-11-9	1,3-Dioxolane, 2,2,4-trimethyl*	4.6	1.0
96-35-5	Acetic acid, hydroxy-, methyl ester*	4.6	1.2
29022-29-5	3-Heptyne, 2,2-dimethyl-*	4.5	0.9
108-94-1	Cyclohexanone	4.1	1.0
67-64-1	Acetone	4.0	1.7
1000373-42-6	1-Acetyl-4,5-dihydro-1H-pyrazole*	3.8	0.8
75-91-2	tert-Butyl Hydroperoxide*	3.7	1.0
1487-18-9	Vinylfuran*	2.7	0.7
71-23-8	1-Propanol (Propyl alcohol)	2.6	1.1
1117-97-1	Methanamine, N-methoxy-*	2.6	1.0
126-98-7	2-Propenenitrile, 2-methyl-*	2.2	0.8

Individual compounds and 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 individual VOCs.

Date Issued: December 15, 2020
Product #: 1001086264-3486287
Report #: 1001086264-3486287
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Project # 2011006NY B171001086264-3486287

ACTIVE CHEMICAL SAMPLING CHAIN OF CUSTODY								
Company: ULVS (Healthy Buildings)			Contact: CARERESULTS@UL.COM			Project/P.O./Job Number: 2011006NY_B17		
Address: 3251 Old Lee Highway #100 Fairfax, VA 22030			Phone: 571.655.7919			Sample Date: 20 Nov 2020		
			Fax: 703.323.4440			Investigator: SAM.HORNER		
Please check the appropriate fields; Use separate COC for each sample method.	VOLATILE ORGANICS: IVOC SCAN: <u>x</u> TOP 20 IVOC <u> </u> TVOC ONLY <u> </u> OTHER <u>B.T.E.X.</u>							
	ALDEHYDE SCAN: <u> </u> FORMALDEHYDE ONLY <u> </u>				ANALYSIS: LEED V4 <u> </u> LEED V4.1 <u> </u> OTHER <u>B.T.E.X.</u>			
	TAT: Standard <u>X</u> Next Day Rush* <u> </u> * Rush charges apply; please call in advance to confirm availability							
Comments: Two (2) Week TAT Please – Looking for results December 8th. Thank you								
UL ID	SAMPLE ID/ TUBE ID	SAMPLE LOCATION/ DESCRIPTION	START TIME	STOP TIME	TIME SAMPLED (MIN)	PUMP ID #	FLOW RATE (L/MIN)	VOLUME (L)
<u>Vfid 01</u>	2011006NY-17A/ s/n B26433	B17_BR_04_Pre	08:13	09:13	60	4257	0.2923	17.5353
<u>Vfid 02</u>	2011006NY-17B/ s/n B26167	B17_BR_04_Post	11:44	12:44	60	4257	0.3028	18.1695
<u>Vfid 03</u>	2011006NY-17C/ s/n B27029	B17_BR_04_HZA	11:01	11:36	35	5516	0.6242	21.8467
<u>Vfid 04</u>	2011006NY-17D/ s/n B27012	B17_BR_04_Field Blank						n/a
<u>Vfid 04</u>	2011006NY-17E/ s/n B26919	B17_House_A_FP	10:55	11:06	11	5102	0.6338	6.9714
Released By: SAM HORNER (Print/Sign) <u>[Signature]</u>			Date/Time: 23Nov2020		Method of Shipment: UPS Next D			
Received By: <u>[Signature]</u>			Date/Time: <u>11/24/20 11:53 AM</u>		Sample Condition: <u>Acceptable</u>			

3486287Description
2011006NY_B17
3486287

Customer: UL Verification Services, Inc.
 Received Date: Aurora Project No.: 1001086264
 Order No.:
 2020-NOV-24 12:01:53 PM Oracle Project No.:

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