

Table A.4.a
Vapor Analytical Table - Sub Slab Results
Former Minocqua Cleaners
8576 Highway 51 North
Minocqua, WI 54460
BRRTS# 02-44-000113

Sample Location-->						VP-1		VP-2	
Collected By-->						REI Engineering, Inc.			
Sample Date-->						4/2/2021	5/15/2024	4/2/2021	5/15/2024
Exposure Scenario-->						Small Commercial			
TO-15 VOC's (µg/m³)	CAS Number	carcinogen	Sub-Slab VRSL						
			Residential [R] (AF = 0.03)	Small Commercial [SC] (AF = 0.03)	Large Commercial/ Industrial [LC/I] (AF = 0.01)				
Acetone	67-64-1	n	1,070,000	4,500,000	13,500,000	230	<40	174	33
Benzene	71-43-2	c	120	524	1,570	2.7	<1.36	2.8	<1.36
Benzyl chloride	100-44-7	c	19.1	83.4	250	<1.4	<2.09	<1.3	<2.09
Bromodichloromethane	75-27-4	c	25.3	110	331	<0.36	<3.74	<0.33	<3.74
Bromoform	75-25-2	c	851	3,720	11,100	<2.5	<4.14	<2.3	<4.14
Bromomethane	74-83-9	n	174	730	2,190	<0.23	<2.00	<0.21	<2.00
1,3-Butadiene	106-99-0	c	31.2	136	409	<0.18	<1.43	<0.17	<1.43
2-Butanone (MEK)	78-93-3	n	174,000	730,000	2,190,000	15.2	<1.78	9.8	<1.78
Carbon disulfide	75-15-0	c	24,300	102,000	307,000	<0.20	<1.38	3.4	<1.38
Carbon tetrachloride	56-23-5	c	156	681	2,040	<0.43	<3.07	<0.39	<3.07
Chlorobenzene	108-90-7	c	1,740	7,300	21,900	<0.24	<2.51	<0.22	<2.51
Chloroethane	75-00-3	--	--	--	--	<0.34	<1.59	<0.32	<1.59
Chloroform	67-66-3	c	40.7	178	533	<0.28	<3.00	<0.26	<3.00
Chloromethane	74-87-3	n	3,130	13,100	39,400	<0.13	<8.31	<0.12	<8.31
Chlorohexane	544-10-5	--	--	--	--	<0.34	<2.12	<0.31	<2.12
Dibromochloromethane	124-48-1	--	--	--	--	<0.78	<3.76	<0.73	<3.76
1,2-Dibromoethane (EDB)	106-93-4	c	1.56	6.81	20	<0.46	<3.42	<0.42	<3.42
1,2-Dichlorobenzene	95-50-1	n	6,950	29,200	87,600	<0.62	<2.35	<0.57	<2.35
1,3-Dichlorobenzene	541-73-1	--	--	--	--	<0.77	<3.02	1.2 ^j	<3.02
1,4-Dichlorobenzene	106-46-7	c	85	372	1,110	<1.3	<3.02	<1.2	<3.02
Dichlorodifluoromethane	75-71-8	n	3,480	14,600	43,800	252	750	138	259
1,1-Dichloroethane	75-34-3	c	585	2,560	7,670	<0.25	<1.87	<0.23	<1.87
1,2-Dichloroethane	107-06-2	c	36	157	472	<0.29	<2.4	<0.27	<2.4
1,1-Dichloroethene	75-35-4	n	6,950	29,200	87,600	<0.21	<2.1	<0.19	<2.1
cis-1,2-Dichloroethene	156-59-2	--	--	--	--	<0.30	<1.97	<0.27	<1.97
trans-1,2-Dichloroethene	156-60-5	c	--	--	--	<0.26	<2.31	0.24 ^j	<2.31
1,2-Dichloropropane	78-87-5	n	139	584	1,750	<0.41	<2.8	<0.38	<2.8
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	<0.39	<2.34	<0.36	<2.34
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	<0.83	<1.98	<0.77	<1.98
Dichlorotetrafluoroethane (1,2-)	76-14-2	--	--	--	--	<0.31	<4.46	<0.28	<4.46
Ethanol	64-17-5	--	--	--	--	208	57	145	24.7
Ethyl acetate	141-78-6	n	2,430	10,200	30,700	<0.20	<1.76	<0.18	<1.76
Ethylbenzene	100-41-4	c	374	1,640	4,910	12.0	<2.03	7.9	<2.03
4-Ethyltouene	622-96-8	--	--	--	--	8.2	<2.14	5.9	<2.14
n-Heptane	142-82-5	n	13,900	58,400	175,000	7.0	<2.65	4.6	<2.65
Hexachloro-1,3-butadiene	87-68-3	c	42.5	186	557	<1.9	<4.89	<1.7	<4.89
n-Hexane	110-54-3	n	24,300	102,000	307,000	2.9	<2.35	5.2	<2.35
2-Hexanone	591-78-6	n	1,040	4,380	13,100	<0.67	<2.22	<0.62	<2.22
Methylene Chloride	75-09-2	n	3,600	15,700	47,200	<0.90	10.1	<0.84	14.2
4-Methyl-2-pentanone (MIBK)	108-11-2	n	104,000	438,000	1,310,000	3.4 ^j	<1.68	1.9 ^j	<1.68
Methyl-tert-butyl ether (MTBE)	1634-04-4	c	20,900	87,600	263,000	<0.19	<1.6	<0.18	<1.6
Naphthalene	91-20-3	n	27.5	120	361	5.0	<6.75	3.9	<6.75
2-Propanol (Isopropanol)	67-63-0	n	6,950	29,200	87,600	23.2	<1.09	25.1	<1.09
Propylene	115-07-1	n	104,000	438,000	1,310,000	<0.20	<0.79	1.5	<0.79
Styrene	100-42-5	n	34,800	146,000	438,000	1.7	<1.81	3.4	<1.81
1,1,1,2-Tetrachloroethane	630-20-6	c	126	552	1,660	<0.57	<3.25	<0.52	<3.25
Tetrachloroethene (PCE)	127-18-4	n	1,390	5,840	17,500	2,640	1,910	603	760
Tetrahydrofuran	109-99-9	n	69,500	292,000	876,000	<0.27	<1.31	4.6	<1.31
Toluene	108-88-3	n	174,000	730,000	2,190,000	29.8	5.6 ^j	23.8	4.5 ^j
1,2,4-Trichlorobenzene	120-82-1	n	69.5	292	876	<7.4	<6.57	<6.9	<6.57
1,1,1-Trichloroethane	71-55-6	n	174,000	730,000	2,190,000	0.67 ^j	<2.49	<0.26	<2.49
1,1,2-Trichloroethane	79-00-5	n	6.95	29.2	87.6	<0.30	<2.58	<0.28	<2.58
Trichloroethene (TCE)	79-01-6	--	69.5	292	876	0.41 ^j	<2.37	0.42 ^j	<2.37
Trichlorofluoromethane	75-69-4	n	--	--	--	2.3	<3.37	1.5 ^j	<3.37
Trichlorotrifluoroethane (1,1,2-)	76-13-1	n	174,000	730,000	2,190,000	0.87 ^j	<4.02	0.50 ^j	<4.02
1,2,4-Trimethylbenzene (TMB)	95-63-6	n	2,090	8,760	26,300	24.5	<2.83	17.8	<2.83
1,3,5-Trimethylbenzene (TMB)	108-67-8	c	2,090	8,760	26,300	7.0	<2.32	5.3	<2.32
Vinyl acetate	108-05-4	n	6,950	29,200	87,600	<0.32	<2.03	<0.29	<2.03
Vinyl chloride	75-01-4	n	55.9	929	2,790	<0.13	<1.48	<0.12	<1.48
Xylene, m,p-	1330-20-7	n	3,480	14,600	43,800	50.0	6.9 ^j	32.9	6.1 ^j
Xylene, o-		n				20.5	<2.18	13.9	<2.18

Notes:

Indoor Air Standards based on US EPA Vapor Intrusion Screening Levels online calculator.

VRSL Calculated on Date: **3/24/2023**

AF = Attenuation Factor

VAL = Vapor Action Level

VRSL = Vapor Risk Screening Level

< = Concentration Below Laboratory Detection Limit

-- = Not Sampled/Collected

-- = No Standard/Not Applicable

^j = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ)

c = carcinogen

n = non-carcinogen

Target Risk for Carcinogens = 1.00E-05

Target Hazard Quotient for Non-Carcinogens = 1

Italics	= Exceeds US EPA Residential VRSL
Bold	= Exceeds US EPA Small Commercial VRSL
Underlined	= Exceeds US EPA Large Commercial/Industrial VRSL