Guide for Using Table C-3

Table C-3 provides information that may be beneficial for designers who choose to comply with the Indoor Air Quality Procedure of this Standard. The VOCs included in the table were reported in published, peer-reviewed surveys conducted in office buildings and in new and existing residences in North America during the period 1990–2000 C-42,C-43,C-45. Only those VOCs for which exposure guidelines for the general population have been developed by cognizant authorities are listed in Table C-3.

Reference Exposure Levels (RELs) are guidelines for acute, 8-hour and chronic inhalation exposures developed by California Office of Health Hazard Assessment (OEHHA). Minimal Risk Levels (MRLs) for hazardous substances are guidelines for acute, intermediate and chronic inhalation exposures developed by the Agency for Toxic

Substances and Disease Registry (ATSDR). Factors for µg/m³ to ppb concentration conversions are shown.

limits. Published, peer-reviewed surveys conducted in office buildings and in new and existing residences in North America since 2000 may identify several more compounds, for The table does not purport to represent (a) all possible chemicals found in nonindustrial indoor environments and (b) all concentration guidelines, standards, and regulatory some of which guidelines may be available from the cognizant authorities described above.

TABLE C-3 Concentrations of Interest for Selected Volatile Organic Compounds

CAS Chemical Lisss a pignal to Chemical Conversion Factor: Acute of 1 minute Acute of 1 minute					CA OEHHA REL C-36	REL C-36		ATSDR MRL C46	SL C-46	
75-07-0 Ald 0.554 470 300 140 3.0 107-02-8 Ald 0.436 2.5 0.7 0.35 3 107-13-1 Misc 0.460 2.5 0.7 0.35 3 71-43-2 Arom 0.313 1300 60 9 74-83-9 Halo 0.258 20 9 106-90-0 Alke 0.452 20 9 78-93-3 Ket 0.339 13,000 20 6000 111-76-2 Gly 0.207 8000 2000 1634-04-4 Ethr 0.277 800 2000 56-23-5 Halo 0.159 1900 40 1000 108-90-7 ClAro 0.207 150 40 100 106-46-7 ClAro 0.166 150 200 100	Compound	CAS Number	Chemical Class ^a	Conversion Factor: ug/m³ to ppb b	Acute c (µg/m³)	8-h ^d (µg/m³)	Chronic ^e (µg/m³)	Acute ^f (ppb)	Intermediate ^g (ppb)	Chronic h
107-02-8 Ald 6436 2.5 0.7 0.35 3 107-13-1 Mise 0.460 5.25 0.7 0.35 3 11-43-2 Arom 0.313 1300 60 9 106-99-0 Alke 0.452 2.3 13,000 5.00 111-76-2 Gly 0.207 5.00 5.00 111-76-2 Halo 0.271 6200 5.00 5.00 108-90-7 ClAro 0.215 150 150 150 100 100 100 100 100 100 1	Acetaldehyde	75-07-0	Ald	0.554	470	300	140			
107-13-1 Misc 0.460 5 100 71-43-2 Arom 0.313 1300 60 9 74-83-9 Halo 0.258 20 9 106-90-0 Alke 0.452 20 50 78-93-3 Ket 0.339 13,000 6000 6000 111-76-2 Gly 0.207 8000 2000 113-4044 Ethr 0.277 8000 2000 56-23-5 Halo 0.159 1900 40 108-90-7 ClAro 0.205 150 1000 106-46-7 ClAro 0.166 800 2000	Acrolein	107-02-8	Ald	0.436	2.5	0.7	0.35	3	0.4	
71-43-2 Arom 0.313 1300 60 9 74-83-9 Halo 0.258 20 50 106-99-0 Alke 0.452 20 20 78-93-3 Ket 0.339 13,000 6000 111-76-2 Gly 0.207 6000 2000 1634-04-4 Ethr 0.277 8000 2000 56-23-5 Halo 0.159 1900 40 108-90-7 ClAro 0.205 150 1000 106-46-7 ClAro 0.166 800 2000	Acrylonitrile	107-13-1	Misc	0.460			S	100		
74-83-9 Halo 0.258 50 106-99-0 Alke 0.452 20 78-93-3 Ket 0.339 13,000 6000 111-76-2 Gly 0.207 6000 2000 0 75-15-0 Misc 0.277 800 2000 56-23-5 Halo 0.159 1900 40 100 108-90-7 ClAro 0.217 1000 100 100 106-46-7 ClAro 0.166 800 2000 2000	Benzene	71-43-2	Arom	0.313	1300		09	6	9	3
106-99-0 Alke 0.452 13,000 207 111-76-2 Gly 0.207 8000 2000 11534-04-4 Ethr 0.277 8000 2000 155-15-0 Misc 0.321 6200 800 2000 108-90-7 ClAro 0.217 1000 150 1000 2000 106-46-7 ClAro 0.166 800 2000 2000	Bromomethane (Methyl bromide)	74-83-9	Halo	0.258				50	50	Ś
78-93-3 Ket 0.339 13,000 111-76-2 Gly 0.207 6000 1634-04-4 Ethr 0.277 8000 2000 75-15-0 Misc 0.321 6200 800 2000 56-23-5 Halo 0.159 1900 40 1000 108-90-7 ClAro 0.217 150 100 100 106-46-7 ClAro 0.166 800 2000	1,3-Butadiene	106-99-0	Alke	0.452			20			
111-76-2 Gly 0.207 8000 2000 1634-04-4 Ethr 0.277 8000 2000 75-15-0 Misc 0.321 6200 800 56-23-5 Halo 0.159 1900 40 108-90-7 ClAro 0.217 150 1000 106-46-7 ClAro 0.166 800 2000	2-Butanone	78-93-3	Ket	0.339	13,000					
1634-04-4 Ethr 0.277 8000 2000 2000 2000 2000 2000 2000 2	2-Butoxyethanol	111-76-2	Gly	0.207				0009	3000	200
75-15-0 Misc 0.321 6200 800 56-23-5 Halo 0.159 1900 40 108-90-7 ClAro 0.217 1000 1000 67-66-3 Halo 0.205 150 300 100 106-46-7 ClAro 0.166 800 2000	t-Butyl methyl ether (Methyl-t-butyl ether)	1634-04-4	Ethr	0.277			8000	2000	700	700
56-23-5 Halo 0.159 1900 40 108-90-7 ClAro 0.217 1000 67-66-3 Halo 0.205 150 300 100 106-46-7 ClAro 0.166 800 2000	Carbon disulfide	75-15-0	Misc	0.321	6200		800			300
one 108-90-7 CIAro 0.217 1000 67-66-3 Halo 0.205 150 300 100 obenzene 106-46-7 CIAro 0.166 800 2000	Carbon tetrachloride	56-23-5	Halo	0.159	1900		40		30	30
67-66-3 Halo 0.205 150 300 100 bbenzene 106-46-7 ClAro 0.166 800 2000	Chlorobenzene	108-90-7	ClAro	0.217			1000			
106-46-7 ClAro 0.166 800 2000	Chloroform	67-66-3	Halo	0.205	150		300	100	50	20
	1,4-Dichlorobenzene	106-46-7	ClAro	0.166			800	2000	200	10

a. Ate = alcohol; Ethr = ether; Gly = glycol ether; Ket = ketone; Ald = aldehyde; Estr = acetates and other esters; Acid = carboxylic acid; Alka = alkane HC; Alke = alkene HC; Cycl = cyclic HC; Terp = terpene HC; Arom = aromatic HC; ClAro = chlorinated aromatic HC; Misc = miscellaneous category

b. Conversion factors from μg/m³ to ppb

c. Exposure averaging time is 1 hour

d. Exposure averaging time is 8 hours and which may be repeated

e. Designed to address continuous exposures for up to a lifetime: the exposure metric used is the annual average exposure

f. Exposure to a chemical for a duration of 14 days or less, as specified in the toxicological profiles