



# GREENGUARD Certification Criteria for Building Products and Interior Finishes

Criteria	CAS Numbers	Maximum Allowable Predicted Concentrations		Units
		GREENGUARD Tier Compliance Criteria		
		Certified	Gold	
TVOC <sup>A</sup>	-	500	220	µg/m <sup>3</sup>
Formaldehyde	50-00-0	61.3 (50 ppb)	9 (7.3 ppb)	µg/m <sup>3</sup>
Total Aldehydes <sup>B</sup>	-	100	43	ppb
Individual VOCs <sup>C</sup>	-	1/10th TLV	1/100th TLV	
4-Phenylcyclohexene	4994-16-5	6.5	-	µg/m <sup>3</sup>
Particle Matter less than 10 µm <sup>D</sup>	-	50	20	µg/m <sup>3</sup>
<b>Individual VOC Criteria<sup>E</sup></b>				
Acetaldehyde	75-07-0	-	70	µg/m <sup>3</sup>
Benzene	71-43-2	-	1.5	µg/m <sup>3</sup>
Carbon disulfide	75-15-0	-	310 <sup>F</sup>	µg/m <sup>3</sup>
Carbon tetrachloride	56-23-5	-	20	µg/m <sup>3</sup>
Chlorobenzene	108-90-7	-	460 <sup>F</sup>	µg/m <sup>3</sup>
Chloroform	67-66-3	-	150	µg/m <sup>3</sup>
Dichlorobenzene (1,4-)	106-46-7	-	400	µg/m <sup>3</sup>
Dichloroethylene (1,1)	75-35-4	-	35	µg/m <sup>3</sup>
Dimethylformamide (N,N-)	68-12-2	-	40	µg/m <sup>3</sup>
Dioxane (1,4-)	123-91-1	-	720 <sup>F</sup>	µg/m <sup>3</sup>
Epichlorohydrin	106-89-8	-	1.5	µg/m <sup>3</sup>
Ethylbenzene	100-41-4	-	1,000	µg/m <sup>3</sup>
Ethylene glycol	107-21-1	-	200	µg/m <sup>3</sup>
Ethylene glycol monoethyl ether	110-80-5	-	35	µg/m <sup>3</sup>
Ethylene glycol monoethyl ether acetate	111-15-9	-	150	µg/m <sup>3</sup>
Ethylene glycol monomethyl ether	109-86-4	-	30	µg/m <sup>3</sup>
Ethylene glycol monomethyl ether acetate	110-49-6	-	45	µg/m <sup>3</sup>
Hexane (n-)	110-54-3	-	1,760 <sup>F</sup>	µg/m <sup>3</sup>
Isophorone	78-59-1	-	280 <sup>F</sup>	µg/m <sup>3</sup>
Isopropanol	67-63-0	-	3,500	µg/m <sup>3</sup>
Methyl chloroform	71-55-6	-	500	µg/m <sup>3</sup>
Methylene chloride	75-09-2	-	200	µg/m <sup>3</sup>
Methyl t-butyl ether	1634-04-4	-	1,800 <sup>F</sup>	µg/m <sup>3</sup>
Naphthalene	91-20-3	-	4.5	µg/m <sup>3</sup>
Phenol	108-95-2	-	100	µg/m <sup>3</sup>
Propylene glycol monomethyl ether	107-98-2	-	3,500	µg/m <sup>3</sup>
Styrene	100-42-5	-	450	µg/m <sup>3</sup>
Tetrachloroethylene	127-18-4	-	17.5	µg/m <sup>3</sup>
Toluene	108-88-3	-	150	µg/m <sup>3</sup>
Trichloroethylene	79-01-6	-	300	µg/m <sup>3</sup>
Vinyl acetate	108-05-4	-	100	µg/m <sup>3</sup>
Xylenes (m-, o-, p- combined)	-	-	350	µg/m <sup>3</sup>
1-Methyl-2-pyrrolidinone <sup>G</sup>	872-50-4	-	160	µg/m <sup>3</sup>

- A. Defined to be the total response of measured VOCs falling within the  $C_6 - C_{16}$  range, with responses calibrated to a toluene surrogate.
- B. The sum of all measured normal aldehydes from formaldehyde through nonanal, plus benzaldehyde, individually calibrated to a compound specific standard. Heptanal through nonanal are measured via TD/GC/MS analysis and the remaining aldehydes are measured using HPLC/UV analysis.
- C. Any VOC not listed must produce an air concentration level no greater than the acceptable fraction of the Threshold Limit Value (TLV) industrial work place standard (Reference: American Conference of Government Industrial Hygienists, 6500 Glenway, Building D-7, and Cincinnati, OH 45211-4438).
- D. Particle emission requirement only applicable to HVAC Duct Products with exposed surface area in air streams (a forced air test with specific test method) and for wood finishing (sanding) systems.
- E. Individual VOC levels derived from the lower of 1/2 the California Office of Environmental Health Hazard Assessment (OEHHA) Chronic Reference Exposure Level (CREL) as required per the CDPH/EHLB/Standard Method v1.2.
- F. Individual VOC levels for these chemicals are derived from the 1/100th TLV criteria which results in a lower threshold than the CREL.
- G. Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200  $\mu\text{g}/\text{day}$  and an inhalation rate of 20  $\text{m}^3/\text{day}$ .