

The tables below show the emission factors for each wood species, at various temperatures. For the pollutants with emission factors varying by temperature, the linear regression equation is listed at the top of the table, for use with temperatures not included in the table.

Douglas Fir and Larch

Temperature (°F)	VOC (lb/mbf)	Methanol (lb/mbf)	Formaldehyde (lb/mbf)	Acetaldehyde (lb/mbf)	Propionaldehyde (lb/mbf)	Acrolein (lb/mbf)
Equations	$0.015x - 1.8842$	$0.00126x - 0.1766$	$0.000038x - 0.0051$	0.0430	0.0009	0.0008
170	0.666	0.0376	0.0014			
175	0.741	0.0439	0.0016			
180	0.816	0.0502	0.0017			
185	0.891	0.0565	0.0019			
190	0.966	0.0628	0.0021			
195	1.041	0.0691	0.0023			
200	1.116	0.0754	0.0025			
205	1.191	0.0817	0.0027			
210	1.266	0.0880	0.0029			
215	1.341	0.0943	0.0031			
220	1.416	0.1006	0.0033			

Hemlock

Temperature (°F)	VOC (lb/mbf)	Methanol (lb/mbf)	Formaldehyde (lb/mbf)	Acetaldehyde (lb/mbf)	Propionaldehyde (lb/mbf)	Acrolein (lb/mbf)
Equations	$0.0052x - 0.6436$	$0.00273x - 0.43628$	$0.000062x - 0.010327$	0.1128	0.0012	0.0018
170	0.240	0.028	0.0002			
175	0.266	0.041	0.0005			
180	0.292	0.055	0.0008			
185	0.318	0.069	0.0011			
190	0.344	0.082	0.0015			
195	0.370	0.096	0.0018			
200	0.396	0.110	0.0021			
205	0.422	0.123	0.0024			
210	0.448	0.137	0.0027			
215	0.474	0.151	0.0030			
220	0.500	0.164	0.0033			

Ponderosa Pine and Western White Pine

Temperature (°F)	VOC (lb/mbf)	Methanol (lb/mbf)	Formaldehyde (lb/mbf)	Acetaldehyde (lb/mbf)	Propionaldehyde (lb/mbf)	Acrolein (lb/mbf)
Equations	$0.0285x - 3.0032$	$0.0015x - 0.2083$	$0.0001x - 0.0142$			
170	1.8418	0.0467	0.0028	0.0567	0.0029	0.0039
175	1.9843	0.0542	0.0033			
180	2.1268	0.0617	0.0038			
185	2.2693	0.0692	0.0043			
190	2.4118	0.0767	0.0048			
195	2.5543	0.0842	0.0053			
200	2.6968	0.0917	0.0058			
205	2.8393	0.0992	0.0063			
210	2.9818	0.1067	0.0068			
215	3.1243	0.1142	0.0073			
220	3.2668	0.1217	0.0078			

Western True Firs¹ and Western Red Cedar

Temperature (°F)	VOC (lb/mbf)	Methanol (lb/mbf)	Formaldehyde (lb/mbf)	Acetaldehyde (lb/mbf)	Propionaldehyde (lb/mbf)	Acrolein (lb/mbf)
Equations	$0.0107x - 1.3789$	$0.005x - 0.7705$	$0.00022x - 0.0367$			
170	0.4401	0.0795	0.0007	0.0550	no data	no data
175	0.4936	0.1045	0.0018			
180	0.5471	0.1295	0.0029			
185	0.6006	0.1545	0.004			
190	0.6541	0.1795	0.0051			
195	0.7076	0.2045	0.0062			
200	0.7611	0.2295	0.0073			
205	0.8146	0.2545	0.0084			
210	0.8681	0.2795	0.0095			
215	0.9216	0.3045	0.0106			
220	0.9751	0.3295	0.0117			

¹ Western true firs consist of the following seven species classified in the same Abies genus: bristlecone fir, California red fir, grand fir, noble fir, pacific silver fir, subalpine fir and white fir.

Lodgepole Pine

Temperature (°F)	VOC (lb/mbf)	Methanol (lb/mbf)	Formaldehyde (lb/mbf)	Acetaldehyde (lb/mbf)	Propionaldehyde (lb/mbf)	Acrolein (lb/mbf)
All temps.	1.3779	0.0603	0.0040	no data	no data	no data

Engelmann Spruce

Temperature (°F)	VOC (lb/mbf)	Methanol (lb/mbf)	Formaldehyde (lb/mbf)	Acetaldehyde (lb/mbf)	Propionaldehyde (lb/mbf)	Acrolein (lb/mbf)
Equations		$0.00096x - 0.1485$	$0.000056x - 0.0088$			
170		0.0147	0.00072			
175		0.0195	0.001			
180		0.0243	0.00128			
185		0.0291	0.00156			
190	0.2157	0.0339	0.00184	0.0335	0.0005	0.0008
195		0.0387	0.00212			
200		0.0435	0.0024			
205		0.0483	0.00268			
210		0.0531	0.00296			
215		0.0579	0.00324			
220		0.0627	0.00352			

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