

Office of Environmental Health Hazard Assessment  
Weighting Scheme for Polyaromatic Hydrocarbons (PAH's)

<u>PAH or derivative</u>	<u>CAS number</u>	<u>Suggested PEF</u>
benzo[a]pyrene	50-32-8	1.0 (index compound)
benz[a]anthracene	56-55-3	0.1
benzo[b]fluoranthene	205-99-2	0.1
benzo[j]fluoranthene	205-82-3	0.1
benzo[k]fluoranthene	207-08-9	0.1
dibenz[a,j]acridine	224-42-0	0.1
dibenz[a,h]acridine	226-36-8	0.1
7H-dibenzo[c,g]carbazole	194-59-2	1.0
dibenzo[a,e]pyrene	192-65-4	1.0
dibenzo[a,h]pyrene	189-64-0	10
dibenzo[a,i]pyrene	189-55-9	10
dibenzo[a,l]pyrene	191-30-0	10
indeno[1,2,3-c,d]pyrene	193-39-5	0.1
5-methylchrysene	3697-24-3	1.0
1-nitropyrene	5522-43-0	0.1
4-nitropyrene	57835-92-4	0.1
1,6-dinitropyrene	42397-64-8	10
1,8-dinitropyrene	42397-65-9	1.0
6-nitrocrysene	7496-02-8	10
2-nitrofluorene	607-57-8	0.01
chrysene	218-01-9	0.01

This weighting scheme for PAH's was developed by the Air Toxicology and Epidemiology Section (ATES) of the Office of Environmental Health Hazard Assessment (OEHHA) in the document entitled Health Effects of Benzo[a]pyrene. The nitro PAHs are those listed as IARC class 2B. Although chrysene is an IARC class 3 carcinogen, USEPA classifies it as B2. The justification for each PEF is detailed in Appendix A of the document entitled the Health Effects of Benzo[a]pyrene.

These PEF's may be used for both inhalation and oral exposure pathways, although data used for their development was prioritized so inhalation exposure was given higher priority than other routes of exposure. When a specific potency value is developed for a chemical it should be used in place of the PEF.

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