

Chemical	Dibenzoyl peroxide (Benzoyl peroxide)
CAS Number	94-36-0
Category	Category III
Cancer Classification	EPA: Not Evaluated IARC: Group 3; unclassifiable as to carcinogenicity to humans NTP: TR-441 (skin painting studies) “Benzoyl peroxide, a non-phorbol ester and known promoter after DMBA initiation.”
Proposed HAAS	12.5 ug/m ³
Basis of Proposed HAAS	Information cited in ACGIH TLV documentation
Basis of Value used to derive Proposed HAAS	Critical Effects: Irritation of nose and throat Study Animal: Humans Exposure Route: Inhalation, occupational
Dose Extrapolation Method	NOAEL,LOAEL
Notes	Limited data. ACGIH cites study where irritation of nose and throat noted at exposure to concentrations greater than or equal to 12,200 ug/m ³ . No objectionable subjective symptoms noted when exposed to dust concentrations up to 5250 ug/m ³ . Value used as starting point for derivation of HAAS. Reported ability to induce skin sensitization with dermal contact indicates hypersuscpetible individuals may not be adequately protected from adverse health effects at concentrations below the TLV-TWA. Noted to be a tumor promoter in both mice and hamsters.
Additional Tox and/or Occupational Values	VOSHA 1910.1 PEL 5,000 ug/m ³ TWA NIOSH REL: 5,000 ug/m ³ TWA IDLH 1,500,000 ug/m ³ ACGIH TLV-TWA 5,000 ug/m ³
Comparison Values	
Derivation of HAAS: $\text{HAAS (ug/m}^3\text{)} = \frac{\text{NOAEL}}{\text{UF} \times \text{MF} \times \text{TF}}$ UF = 10 for intra-species (inter-individual) variability UF = 3 for less than chronic study/data MF = 3 for limited data TF = 4.2 to extrapolate from occupational to continuous exposure $= \frac{5,250}{10 \times 3 \times 3 \times 4.2}$ (For purposes of this evaluation, application of two factors of 3 is rounded to 10) $\cong 12.5 \text{ ug/m}^3$	