

Chemical	Formic Acid
CAS Number	64-18-6
Category	Category III
Cancer Classification	EPA: Not Evaluated IARC: Not Evaluated NTP: No Report Tox Study TOX-19 (inhalation) F344/N rats and B6C3F ₁ mice. Overall, effects were consistent with inhalation of irritant chemicals administered by inhalation. No significant evidence of systemic toxicity was found in these studies.
Proposed HAAS	35.84 ug/m ³
Basis of Proposed HAAS	NTP TOX-19 Report. 32 ppm (60204.5 ug/m ³) identified as NOAEL for respiratory injury in rats and mice.
Basis of Value used to derive Proposed HAAS	Critical Effect: Respiratory injury Study Animal: F344/N rats and B6C3F ₁ mice Exposure Route: Subchronic, Inhalation 6 hours per day, 5 days per week for 91 days
Dose Extrapolation Method	NOAEL,LOAEL
Notes	
Additional Tox and/or Occupational Values	HEAST,1997 Table 1 Chronic oral Reference Dose 2 (mg/kg-d) Uncertainty Factor=100 VOSHA 1910.1 PEL 9,000 ug/m ³ (5 ppm) TWA NIOSH REL 9,000 ug/m ³ (5 ppm) TWA IDLH 56,466 ug/m ³ (30 ppm) ACGIH TLV-TWA 9,400 ug/m ³ (5 ppm) STEL 19,000 ug/m ³ (10 ppm)
Comparison Values	
Derivation of HAAS: 600204.5 ug/m ³ × (6h/24h) × (5d/7d) = 10750.8 ug/m ³ $HAAS (ug/m^3) = \frac{NOAEL}{UF \times TF}$ UF = 10 for inter-species variability UF = 10 for intra-species (inter-individual) variability UF = 3 for less than chronic study/data $= \frac{10750.8}{10 \times 10 \times 3}$ $\cong 35.84 \text{ ug/m}^3$	