Benzidine and salts
CAS  92-87-5

Current North Carolina AAL = $1.5 \times 10^{-8}$ mg/m$^3$ (annual, carcinogen)

AAL Documentation

Inhalation Unit Risk (IUR) $^1 = 6.7 \times 10^{-2}$ per µg/m$^3$

Known human carcinogen by EPA, Group A
AAL based on $10^{-6}$ risk

\[
\frac{1}{6.7 \times 10^{-2} \text{ per µg/m}^3} = \frac{x}{1 \times 10^{-6}}
\]

\[
x = \frac{1 \times 10^{-6}}{6.7 \times 10^{-2}}
\]

\[
x = 1.5 \times 10^{-5} \text{ µg/m}^3
\]

AAL for benzidine and salts$^2 = 1.5 \times 10^{-8}$ mg/m$^3$

This information has been reconstructed using the decision matrix established by the North Carolina Academy of Sciences Air Toxics Panel, September, 1986.

Final version- June 2013 (CMP)

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$^1$ EPA Ambient Water Quality Criteria Document for Benzidine, 1980. EPA-440/5-80-023. Estimated from an oral cancer slope factor of 234.13(mg/kg-day)$^1$ using standard conversion assumptions of 20 m$^3$ daily breathing rate and 70 kg average body weight.

$^2$ 1 µg/m$^3 = 10^{-3}$ mg/m$^3$