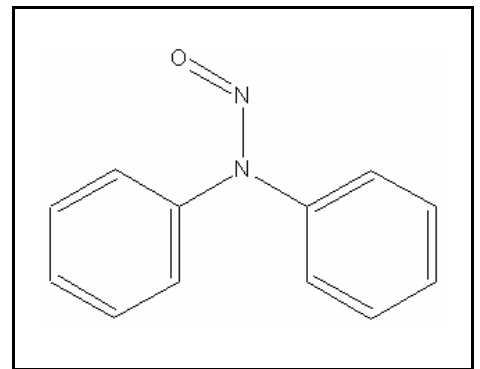




TIER II ACUTE AND CHRONIC AQUATIC LIFE VALUES

N-NITROSODIPHENYLAMINE

CAS RN: 86-30-6
Water Solubility: 0.0035 g/100 mL
Log K_{ow} : 3.16^P



Standard

The procedures described in the Tier II methodology indicate that, except possibly where a locally important species is very sensitive, aquatic organisms should not be affected unacceptably if the four (4) day average concentration of n-nitrosodiphenylamine does not exceed 25 $\mu\text{g/L}$ more than once every three (3) years on the average and if the one (1) hour average concentration does not exceed 220 $\mu\text{g/L}$ more than once every three (3) years on the average.

Calculations

Acute Aquatic Life:

$$\text{SAV} = \text{lowest GMAV/SAF}$$

$$\text{Lowest GMAV} = 5800 \mu\text{g/L}$$

$$\text{SAF} = 13.0$$

$$\text{SAV} = 5800/13.0 = 446.2 \mu\text{g/L}$$

$$\text{SMC} = \text{SAV}/2 = 446.2/2 = \mathbf{220 \mu\text{g/L}}$$

Chronic Aquatic Life:

$$SCV = SAV/SACR$$

$$SACR = 18$$

$$SCV = 446.2/2 = \mathbf{25 \mu g/L}$$

Data

Table 1. GMAVs and SMAVs for n-nitrosodiphenylamine

<u>Genus Mean Acute Value ($\mu\text{g/L}$)</u>	<u>Species</u>	<u>Species Mean Acute Value ($\mu\text{g/L}$)</u>	<u>Acute- Chronic Ratio</u>	<u>Reference Number</u>
5,800	Bluegill <u>Lepomis macrochirus</u>	5,800		1
7,800	Cladoceran <u>Daphnia magna</u>	7,800		2

References

1. Buccafusco, R.J., S.J. Ells, and G.S. LeBlanc 1981. Acute toxicity of priority pollutants to bluegill (Lepomis macrochirus). Bull. Environ. Contam. Toxicol. 26(4): 446-452.
2. LeBlanc, G.A. 1980. Acute toxicity of priority pollutants to water flea (Daphnia magna). Bull. Environ. Contam. Toxicol. 24: 684-691.

Acronyms/Abbreviations

CAS RN	Chemical Abstract Service Registry Number
K _{ow}	Octanol-Water Partition Coefficient
P (superscript)	Predicted value
SAV	Secondary Acute Value
GMAV	Genus Mean Acute Value
SAF	Secondary Acute Factor
SMC	Secondary Maximum Concentration
SCC	Secondary Continuous Concentration
SACR	Secondary Acute-Chronic Ratio
FT	Flow-through
S	Static
U	Unmeasured
M	Measured
EVISTRA	Evaluation and Interpretation of Suitable Test Results in AQUIRE (EPA quality checking method/database)

Revision History

May 7, 1997 Values first developed
September 19, 2001 New search for data. No studies added.

Contact Information

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