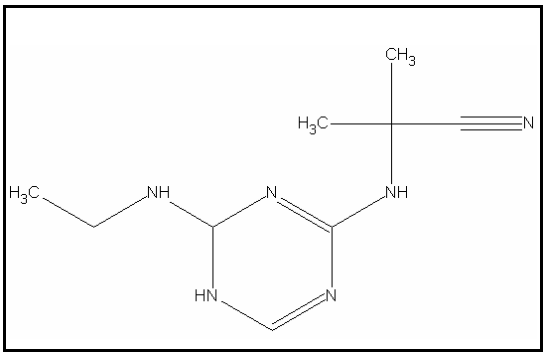
Indiana Department of Environmental Management
Office of Water - Water Quality Standards Section

TIER II ACUTE AND CHRONIC AQUATIC LIFE VALUES

CYANAZINE

CAS RN: 21725-46-2
Water Solubility: 0.0171 g/100 mL
Log K_{ow}: 2.51^{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 cyanazine does not exceed 270 µg/L more than once every three (3) years on the average and if the one (1) hour average concentration does not exceed 2,500 µg/L more than once every three (3) years on the average.

Calculations

Acute Aquatic Life:

SAV = lowest GMAV/SAF

Lowest GMAV = 106,000 µg/L
SAF = 21.9

SAV = 106,000/21.90 = 4,840 µg/L

SMC = SAV/2 = 4,840/2 = **2,420 µg/L**

Chronic Aquatic Life:

SCV = SAV/SACR

SACR = 18

SCV = 4,840/18 = 270 **µg/L**

Data

Table 1. GMAVs and SMAVs for cyanazine

Genus Mean Acute Value (µg/L)	Species	Species Mean Acute Value (µg/L)	Acute-Chronic Ratio	Reference Number
106,000	Cladoceran *Daphnia magna*	106,000		1

References

1. Nebeker, A.V., M.A. Cairns, T. Onjukka, and R. H. Titus 1986. Effect of age on sensitivity of *Daphnia magna* to cadmium, copper and cyanazine. Environ. Toxicol. Chem. 5: 527-530.

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

March 29, 2001 Values first developed

Contact Information

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