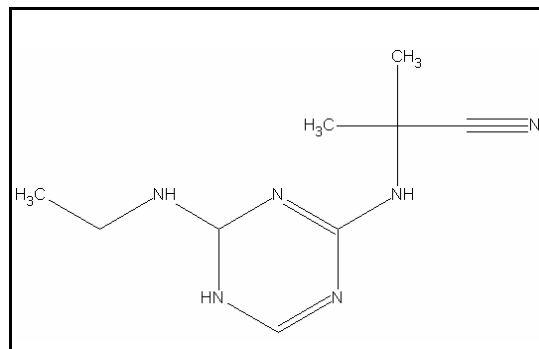




TIER II ACUTE AND CHRONIC AQUATIC LIFE VALUES

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:

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

$$\begin{aligned}\text{Lowest GMAV} &= 106,000 \text{ } \mu\text{g/L} \\ \text{SAF} &= 21.9\end{aligned}$$

$$\text{SAV} = 106,000/21.90 = 4,840 \text{ } \mu\text{g/L}$$

$$\text{SMC} = \text{SAV}/2 = 4,840/2 = \mathbf{2,420 \text{ } \mu\text{g/L}}$$

Chronic Aquatic Life:

$$SCV = SAV/SACR$$

$$SACR = 18$$

$$SCV = 4,840/18 = 270 \text{ } \mu\text{g/L}$$

Data

Table 1. GMAVs and SMAVs for cyanazine

<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>
106,000	Cladoceran <u>Daphnia magna</u>	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

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