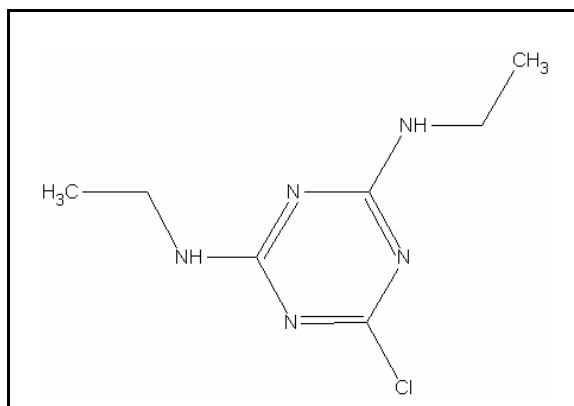




## TIER II ACUTE AND CHRONIC AQUATIC LIFE VALUES

### SIMAZINE

CAS RN: 122-34-9  
Water Solubility: 0.0005 g/100 mL  
Log K<sub>ow</sub>: 2.087<sup>P</sup>



### 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 simazine does not exceed 9 µg/L more than once every three (3) years on the average and if the one (1) hour average concentration does not exceed 80 µg/L more than once every three (3) years on the average.

### Calculations

#### Acute Aquatic Life:

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

$$\begin{aligned}\text{Lowest GMAV} &= 3,500 \text{ } \mu\text{g/L} \\ \text{SAF} &= 21.9\end{aligned}$$

$$\text{SAV} = 3,500/21.9 = 159.8 \text{ } \mu\text{g/L}$$

$$\text{SMC} = \text{SAV}/2 = 159.8/2 = \mathbf{80 \text{ } \mu\text{g/L}}$$

#### Chronic Aquatic Life:

$$SCV = SAV/SACR$$

$$SACR = 18$$

$$SCV = 159.8/18 = 9 \mu\text{g/L}$$

## Data

Table 1. GMAVs and SMAVs for simazine

<u>Genus Mean Acute Value (<math>\mu\text{g/L}</math>)</u>	<u>Species</u>	<u>Species Mean Acute Value (<math>\mu\text{g/L}</math>)</u>	<u>Acute- Chronic Ratio</u>	<u>Reference Number</u>
>3,500	Cladoceran <u>Daphnia magna</u>	>3,500		1

## References

1. Marchini, S., L. Passerini, D. Cesareo, and M.L. Tosato 1988. Herbicidal triazines: acute toxicity on Daphnia, fish, and plants and analysis of its relationships with structural factors. Ecotox. Environ. Saf. 16: 148-157.

## Acronyms/Abbreviations

CAS RN	Chemical Abstract Service Registry Number
K <sub>ow</sub>	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

February 19, 1999    Values first developed  
September 19, 2001    New search for data. No studies added.

## Contact Information

David B. Kallander  
Water Quality Standards Section  
Indiana Department of Environmental Management  
100 North Senate Ave., P.O. Box 6015  
Indianapolis, IN 46206-6015  
(317) 233-2472  
Email: [dkalland@dem.state.in.us](mailto:dkalland@dem.state.in.us)