

~~CRIT-07017~~
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CRIT-00987
-00988

TIER II ACUTE AND CHRONIC AQUATIC LIFE VALUES FOR ALACHLOR

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 alachlor does not exceed 20 µg/L more than once every three (3) years on the average and if the one (1) hour average concentration does not exceed 180 µg/L more than once every three (3) years on the average.

Calculations:

Acute Aquatic Life:

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

$$\text{Lowest GMAV} = 7,900 \text{ } \mu\text{g/L}$$

$$\text{SAF} = 21.9$$

$$\text{SAV} = 7,900/21.9 = 360.7 \text{ } \mu\text{g/L}$$

$$\text{SMC} = \text{SAV}/2 = 360.7/2 = \mathbf{180 \text{ } \mu\text{g/L}}$$

Chronic Aquatic Life:

$$\text{SCV} = \text{SAV/SACR}$$

$$\text{SACR} = 18$$

$$\text{SCV} = 360.7/18 = \mathbf{20 \text{ } \mu\text{g/L}}$$

Notes:

NONE

Table 1. GMAVs and SMAVs for alachlor

<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>
7,900	Cladoceran <u>Ceriodaphnia dubia</u>	7,900		1

References:

1. Oris, J.T., R.W. Winner, and M. Moore 1991. A four-day survival and reproduction toxicity test for Ceriodaphnia dubia. Environ. Toxicol. Chem. 10: 217-224.

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