

AL CRIT-00187
-00188
HM CRIT-00167
-00168

BAF = CRIT-00794

TIER II ACUTE AND CHRONIC AQUATIC LIFE VALUES FOR NAPHTHALENE

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 naphthalene does not exceed 26.3 µg/L more than once every three (3) years on the average and if the one (1) hour average concentration does not exceed 201 µg/L more than once every three (3) years on the average.

Calculations:

Acute Aquatic Life:

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

$$\text{Lowest GMAV} = 3216 \mu\text{g/L}$$

$$SAF = 8.0$$

$$SAV = 3216/8.0 = 401.9 \mu\text{g/L}$$

$$SMC = SAV/2 = 401.9/2 = \mathbf{201 \mu\text{g/L}}$$

Chronic Aquatic Life:

$$SCV = SAV/SACR$$

$$SACR = 15.27 \text{ (Geometric mean of 18, 18, 11)}$$

$$SCV = 401.9/15.27 = \mathbf{26.3 \mu\text{g/L}}$$

Notes:

NONE

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Table 1. GMAVs and SMAVs for naphthalene

<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>
5219	Fathead Minnow <u>Pimephales promelas</u>	5219	11	1,3,5,7,8
3216	Rainbow Trout <u>Salmo gairdneri</u>	3216		1,2
3524	Cladoceran <u>Daphnia magna</u>	3441		6,7,9
	Cladoceran <u>Daphnia pulex</u>	3610		4,10

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