TIER II ACUTE AND CHRONIC AQUATIC LIFE VALUES FOR METHYLAMINE

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 methylamine does not exceed 860 μg/L more than once every three (3) years on the average and if the one (1) hour average concentration does not exceed 7,700 μg/L more than once every three (3) years on the average.

Calculations:

Acute Aquatic Life:

SAV = lowest GMAV/SAF

Lowest GMAV = 338,269 μg/L
SAF = 21.9

SAV = 338,269/21.9 = 15,446 μg/L

SMC = SAV/2 = 15,446/2 = **7,700 μg/L**

Chronic Aquatic Life:

SCV = SAV/SACR

SACR = 18

SCV = 15,446/18 = **860 μg/L**

Notes:

NONE

Table 1. GMAVs and SMAVs for methylamine

Genus Mean Acute Value (µg/L)	Species	Species Mean Acute Value (µg/L)	Acute-Chronic Ratio	Reference Number
338,269	Cladoceran Daphnia magna	163,000		1
	Cladoceran Daphnia magna	702,000		1

References:

1. Kuhn,R., M.Pattard, K.Pernak, and A.Winter 1989. Results of the Harmful Effects of Selected Water Pollutants (Anilines, Phenols, Aliphatic Compounds) to Daphnia magna Water Res. 23(4):495-499

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