

AMBIENT SURFACE WATER QUALITY
STANDARDS DOCUMENTATION

CHEMICAL: Aldicarb VALUE(S) ADDED 7-24-85
CAS NO.(S): 116-06-3 FACT SHEET REVISED _____
BASIS (Human/Aquatic): Human VALUE(S) REMOVED _____
WATER CLASSIFICATION: AA; AA-s; A; A-s
STANDARD: 7 ug/l Note B

REMARKS:

SUMMARY INFORMATION:

The toxicology of Aldicarb has been studied extensively¹ and has been reviewed by the National Academy of Sciences.^{2,3} Aldicarb is a carbamate insecticide capable of interfering with nerve transmission by inhibition of the enzyme cholinesterase. A bioassay conducted by the National Cancer Institute found no evidence of carcinogenicity in mice or rats under conditions of the test protocol.⁴ The National Academy of Sciences established a no-observed-adverse effect level of 0.1 mg/kg/day based on a 2-year feeding study in rats and dogs. An uncertainty factor of 100 was applied to derive an acceptable daily intake (ADI) of 0.001 mg/kg/day. The EPA has recently¹ initiated a special review (RPAR) of aldicarb which may lead to a modification of its registration and use.

STANDARD DERIVATION

A criterion of 7 ug/l can be calculated from the ADI by assuming 20% of aldicarb exposure is due to drinking 2 liters of water by a 70 kg adult (Section 701.5). The 7 ug/l concentration is recommended as the standard.

REFERENCES:

- (1) Federal Register. 1984. 49, No. 134, 28320.
- (2) Drinking Water and Health. 1977, Vol. 1, National Academy Press.
- (3) Drinking Water and Health. 1984. Vol. 5, National Academy Press.
- (4) National Toxicology Program, Bioassay of Alidcarb for Possible Carcinogenicity. 1979. NCI-CG-TR-136, Technical Report Series No. 136, USHEW (NIH Publ. No. 79-1391).

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