VALUE(S) ADDED 6-08-83

FACT SHEET REVISED 9-6-85

VALUE(S) REMOVED

AMBIENT SURFACE WATER QUALITY STANDARDS DOCUMENTATION

CHEMICAL: Tetrahydrofuran

CAS NO.(s): 109-99-9

BASIS (Human/Aquatic): Human

WATER CLASSIFICATION: AA; AA-s; A; A-s

STANDARD: 50 ug/l Note E

REMARKS:

SUMMARY INFORMATION:

Available toxicity information on tetrahydrofuran (THF) has been reviewed.[1,2] THF is used as a solvent for polyvinyl chloride and polyvinylidene chloride during the preparation of inks, adhesives, lacquers and coatings. THF is regulated as an indirect food additive in films used for food packaging. THF has been found in some drinking water supply distribution networks as a result of leaching from PVC pipe and cement.[3] Inhalation of THF at concentrations of 200 ppm daily for 6 hours over a period of 3 weeks caused a fall in the blood pressure of dogs, but no histopathologic changes were noted.[1] Insufficient data exist upon which to calculate a guideline based on chronic toxicity or aesthetic characteristics. The National Toxicology Program has begun testing THF for oncogenic potential.

STANDARD DERIVATION:

Inadequate data base for this chemical precludes the use of any derivation method outlined in Section 701.3 through 701.7. Therefore, the general guideline of 50 ug/l is recommended as the standard.

REFERENCES:

(1) USEPA, 1980, Chemical Hazard Information Profiles, Tetrahydrofuran, 560/11-80-011.

(2) U.S. National Institute for Occupational Safety and Health, 1980, Health Hazard Evaluation Report No. HE-79-80, 81-746 (PB82-107210).

(3) Wang, T. et al., 1979, 2-Butanone and tetrahydrofuran contamination in the water supply, Bull. Env. Contam. Toxicol., 23, 620-623.

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