

AMBIENT SURFACE WATER QUALITY
STANDARDS DOCUMENTATION

CHEMICAL: 2-Hexanone (Methylbutylketone, MBK)

CAS NO.(s): 591-78-6

VALUE(S) ADDED 8-08-83

BASIS (Human/Aquatic): Human

FACT SHEET REVISED 9-6-85

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

VALUE(S) REMOVED

STANDARD: 50 ug/l

Note E

REMARKS:

SUMMARY INFORMATION:

2-Hexanone, also known as methyl butyl ketone (MBK), is an asymmetric ketone used as an industrial solvent. Available toxicity information on MBK has been reviewed.¹⁻⁵ MBK has been implicated as a neurotoxin in workers exposed to relatively high airborne concentrations and has been shown to produce symptoms of nerve damage and pathological changes in cats treated by subcutaneous injection twice daily for up to 8.5 months.¹ Male rats administered MBK (660 mg/kg) by gavage 5 days a week for 90 days showed clinical and histologic evidence of neuropathy.⁶ However, insufficient data exist upon which to calculate a guideline based on chronic toxicity or aesthetic characteristics. The compound has not been adequately tested to determine oncogenic potential.

STANDARD DERIVATION

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

REFERENCES:

- (1) Spencer, P. et al., 1976, *Tox. Appl. Pharm.*, 37, 301-311.
- (2) Spencer, P. et al., 1980, *CRC Crit. Rev. Tox.*, 7(4), 279-356.
- (3) DiVincenzo, G. et al., 1976, *Tox. Appl. Pharm.*, 36, 511-522.
- (4) Abdo, K. et al., 1982, *J. Tox. Env. Health*, 2, 199-215.
- (5) Griffin, J., 1981, *Neurobehav. Toxicol. Teratol.*, 3, 437-444.
- (6) Krasavage, W., et al., 1980, *Tox. Appl. Pharm.*, 52, 433-441.

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