

AMBIENT SURFACE WATER QUALITY  
STANDARDS DOCUMENTATION

CHEMICAL: Isophorone

CAS NO.(s): 75-59-1

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 isophorone has been reviewed.<sup>1,2</sup> Isophorone is an industrial chemical used commercially as a solvent for lacquers, resins, fats, oils and gums, as well as for pesticide and herbicide formulations. Like many other ketones, isophorone has a relatively high degree of toxicity by inhalation.<sup>2</sup> Exposure of humans to low levels of isophorone vapor results in irritation of mucosal membranes. Subacute 90-day feeding studies in rats and dogs have been conducted. No adverse effects were seen in dogs exposed to levels up to 150 mg/kg/day.<sup>1</sup> Insufficient data exist upon which to calculate a guideline based on chronic toxicity or aesthetic effects. The compound has not been adequately tested to determine oncogenic potential.

STANDARD DERIVATION

Inadequate data base 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 the standard.

REFERENCES:

- (1) USEPA, 1980, Ambient Water Quality Criteria Document for Isophorone, PB296798.
- (2) Samimi, B., 1982, Exposure of isophorone and other organic solvents in a screen printing plant, J. Am. Ind. Hygiene Assoc., 43, 43-48.

JS/pb

DEC 84

DEC 84

SEP - 6 1985

VALUE(S) ADDED 5-10-84

FACT SHEET REVISED 9-6-85

VALUE(S) REMOVED \_\_\_\_\_