

Fact Sheet Date: March 12, 1998

**NEW YORK STATE
- HUMAN HEALTH FACT SHEET -**

**Ambient Water Quality Value for
Protection of Sources of Potable Water**

SUBSTANCE: 1,1,2-Trichloro-1,2,2-trifluoroethane **CAS REGISTRY NUMBER:** 76-13-1

AMBIENT WATER QUALITY VALUE: 5 ug/L

BASIS: Surface Water: Principal Organic Contaminant Classes

 Groundwater: Former Reference to 10 NYCRR Subpart 5-1 Principal
 Organic Contaminant (POC) General Maximum
 Contaminant Level (MCL)

SUMMARY OF INFORMATION

New York State developed a guidance value for 1,1,2-trichloro-1,2,2-trifluoroethane of 50 ug/L based on a review of literature up to 1984 (NYS, 1985). This was based on subdivision 701.15(e) of 6 NYCRR that describes a general value of 50 ug/L when the database is inadequate to derive a specific value. Recent assessments (1983-1989) of health effects have been reviewed.

Very little data exist on the health effects of chronic oral exposure to 1,1,2 trichloro-1,2,2-trifluoroethane, either in humans or animals. A search of the literature revealed no studies adequate for derivation of a guidance value. 1,1,2-Trichloro-1,2,2-trifluoroethane has not been recommended for bioassay testing (NTP, 1989).

An oral RfD of 30 mg/kg/day is reported by USEPA (1990), based on psychomotor impairments in occupationally exposed workers. A specific ambient water quality value calculated using NYS procedures greatly exceeds 5 ug/L.

DERIVATION OF VALUE

Surface Water

Regulations [6 NYCRR 702.2(b)] require that the value be the most stringent of the values derived using the procedures found in sections 702.3 through 702.7. The principal organic contaminant class value of 5 ug/L (702.3(b)) represents the most stringent value that can be derived for 1,1,2-trichloro-1,2,2-trifluoroethane. Therefore, the ambient surface water quality value for 1,1,2-trichloro-1,2,2-trifluoroethane is 5 ug/L.

Groundwater

The principal organic contaminant (POC) groundwater standard of 5 ug/L (6 NYCRR 703.5) applies to 1,1,2-trichloro-1,2,2-trifluoroethane. This standard became effective on January 9, 1989 by inclusion by reference to 10 NYCRR Subpart 5-1 standards. The basis and derivation of the POC standard are described in a separate fact sheet.

REFERENCES

6NYCRR. Chapter X. Parts 700-705. Water Quality Regulations. Surface Water and Groundwater Classification and Standards.

10NYCRR. Chapter I. Part 5, Subpart 5-1. Public Water Supplies.

NYS, New York State. 1985. Ambient Surface Water Quality Standards Documentation. 1,1,2-trichloro-1,2,2-trifluoroethane. Sept. 9, 1985 (Fact Sheet Revised) Albany, N.Y.

NTP, 1989. National Toxicology Program. Review of Current DHHS, DOE and EPA Research Related to Toxicology. U.S. Department of Health and Human Services, Research Triangle Park, NC.

USEPA, 1990. U.S. Environmental Protection Agency. Integrated Risk Information System (IRIS) Database. Office of Health and Environmental Assessment. Washington, D.C.

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