

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: 1,2,4-Tribromobenzene

CAS REGISTRY NUMBER: 615-54-3

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

A search of relevant databases revealed little information on 1,2,4-tribromobenzene (TBB).

- USEPA (1986) calculated an oral RfD of .005 mg/kg/day on the basis of a 45-90 day study in rats dosed with 0, 2.5, 5 or 10 mg TBB/kg bw/day. Increases in liver to body weight ratios and liver hepatic microsomal enzyme activity were noted at 10 mg/kg/day (Carlson and Tardiff, 1977). A follow-up study by Carlson (1979) confirmed the above findings. Tribromobenzene's toxicity is discussed in a Health and Environmental Effects Profile (USEPA, 1988).
- Insufficient information exists to determine the carcinogenicity of this compound.

1,2,4-TBB is in a principal organic contaminant class (class 3, halobenzenes and substituted benzenes) as defined in 6 NYCRR 700.1.

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 1,2,4-tribromobenzene. Therefore, the ambient surface water quality value for 1,2,4-tribromobenzene is 5 ug/L.

Groundwater

The principal organic contaminant (POC) groundwater standard of 5 ug/L (6 NYCRR 703.5) applies to 1,2,4-tribromobenzene. 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

Carlson, G.P. 1979. Brominated benzene induction of hepatic porphyria. *Experimentia* 35(4):513-514.

Carlson, G.P. and R.G. Tordiff. 1977. Effect of 1,4-dibromobenzene and 1,2,4-tribromobenzene on xenobiotic metabolism. *Toxicol. Appl. Pharmacol.* 42:189-196

NYSDEC. 1991. 6 NYCRR Chapter X. Parts 700-705. Water Quality Regulations for Surface Waters and Groundwater.

SEARCH STRATEGY

IRIS. 1993.

RTECS. 1993.

Database search on NTIS, TOXLINE, BIOSIS 1965 to March 1993.

New York State Department of Environmental Conservation
Division of Water
AS
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