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: 3-Chloro-1,1,1-trifluoropropane **CAS REGISTRY NUMBER:** 460-35-5

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 sources revealed little information on 3-chloro-1,1,1-trifluoropropane. It is not listed on U.S. EPA's IRIS, has no U.S. EPA Office of Drinking Water Health Advisory, Drinking Water or Ambient Water Quality Criteria Document, or Agency for Toxic Substances and Disease Registry Toxicological Profile. No information was found as to its oncogenicity.

Little information was found as to its systemic toxicity. RTECS (1994) reported a TD_{Lo} (lowest published toxic dose) of 1062 mg/kg/30 weeks (= 5 mg/kg/day) in both rats and rabbits based on the work of Selyuzhitsky (1963), for behavioral and blood effects, respectively.

3-Chloro-1,1,1-trifluoropropane is in principal organic contaminant class i as defined in 6 NYCRR 700.1.

DERIVATION OF VALUE

The results of Selyuzhitsky as reported by RTECS suggest that a value more stringent than 5 ug/L could be derived. There are, however, unanswered questions concerning dosing procedure and statistical analysis of results, that do not allow confident use of the study to derive an ambient water quality 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 3-chloro-1,1,1-trifluoropropane. Therefore, the ambient surface water quality value for 3-chloro-1,1,1-trifluoropropane is 5 ug/L.

Groundwater

The principal organic contaminant (POC) groundwater standard of 5 ug/L (6 NYCRR 703.5) applies to 3-chloro-1,1,1-trifluoropropane. 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

6 NYCRR (New York State Codes, Rules and Regulations, Title 6), Chapter X, Parts 700-705. Water Quality Regulations. Surface Water and Groundwater Classifications and Standards. Albany, NY: New York State Department of Environmental Conservation.

10 NYCRR (New York State Codes, Rules and Regulations). Public Water Systems: Title 10 NYCRR, Chapter 1, State Sanitary Code, Subpart 5-1. Albany, NY: New York State Department of Health, Bureau of Water Supply Protection.

RTECS (Registry of Toxic Effects of Chemical Substances). On-line database, National Library of Medicine. Searched 6/20/94.

Selyuzhitsky, G.V. 1963. Data for substantiating the maximum permissible concentration of trifluorochloropropane in water basins. Gigiena i. Sanitariia 28(12):9-14.

SCOPE OF REVIEW

The following sources were searched:

- IRIS (U.S. EPA's Integrated Risk Information System) - Searched 6/20/94.
- RTECS (Registry of Toxic Effects of Chemical Substances) - Searched 6/20/94.
- CCRIS (Chemical Carcinogenesis Research Information System) - Searched 6/20/94.
- IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42. IARC Monographs Supplement 7. International Agency for Research on Cancer, World Health Organization, Lyon, France, 1987. Searched 6/20/94.

An on-line literature search was conducted by the New York State Library in 6/94 on the following databases:

- TOXLINE - Search Period: 1965-1994
- NTIS (National Technical Information Service) - Search Period: 1964-1994.
- BIOSIS - Search Period: 1969-1994.

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