

VALUE(S) ADDED 7-24-85

FACT SHEET REVISED -----

VALUE(S) REMOVED -----

Date: October 9, 1984

Surface Water Quality
Standard Documentation

Chemical: Parathion and Methyl Parathion*

C.A.S. No.(s): 56-38-2; 298-00-00

Basis (Human/Aquatic): Aquatic

Standard by Water Classification:

	<u>ug/l</u>	<u>Notes</u>
Classes AA,AA-s;A;A-s;B;C	0.008	I,N
Class D		
Classes SA;SB;SC;I		
Class SD		

Remarks: *Applies to the sum of parathion and methyl parathion

Summary of Information

1. EPA, 1976 Quality Criteria for Water. EPA-440/9-76-0723. USEPA, Wash., D.C. 256 pp.
-criterion: "0.04 ug/l for freshwater and marine aquatic life."
-derived by applying a factor 0.1 to the 96hr LC₅₀ data for invertebrates.
2. IJC, 1978. Group II, new and revised specific water quality objectives. International Joint Commission, Regional Office - Windsor, Ontario 195 pp.
-"Concentrations of parathion in an unfiltered water sample should not exceed 0.008 micrograms per litre for the protection of aquatic life."
-derived applying a factor 0.2 to the lowest effect level of 0.04 ug/l for Gammarus fasciatus.

Standard Derivation

The criterion recommended by IJC (1978) is scientifically sound and satisfies NYS protocol. Therefore, 0.008 ug/l should be adopted as the standard for all freshwater classes except D.

Considering the chemical structural similarity of methyl parathion, the methyl homolog of parathion, to parathion the standard should also apply to methyl parathion.