

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

315 (56) A
2,4-D/TOX

Releasable



JUL -2 1981

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: Proposed Section 18 exemption for the use of 2,4-D on Osoyoos Lake to control Eurasian watermilfoil.

FROM: John Worthington, Chemist *John Worthington*
Residue Chemistry Branch (TS-769)

TO: Donald Stubbs, PM#41
Process Coordination Branch
Registration Division (TS-767)

and

Toxicology Branch (TS-769)
Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Chief *CT*
Residue Chemistry Branch (TS-769)

The State of Washington and the Army Corps of engineers requests a Section 18 exemption for the emergency use of 2,4-D (2,4-dichlorophenoxyacetic acid) to control Eurasian watermilfoil in Osoyoos Lake and in the Okanogan Arm of the Columbia River.

Tolerances are currently established under Sections 193.100 of Title 21 and 180.142 of Title 40 for residues of 2,4-D in potable water at 0.1 ppm and on a variety of commodities to cover secondary residues resulting from aquatic treatments. The requested exemption is necessary because the established tolerances for potable water are restricted to specific application programs.

The proposed exemption permits the application of Aqua Kleen, a formulation containing the butoxyethanol ester of 2,4-D, at rates as high as 40 lbs. acid equivalent per surface acre. A maximum of 4,160 lbs. acid equivalent is expected to be used on approximately 200 acres. All of the treatments are to be completed within two days. The area to be treated is approximately 1/2 mile from any potable water intake. The applications will also be timed to minimize the exposure of migrating fish.

The State of Washington will monitor the residue levels and prohibit swimming and fishing and any downstream irrigation until residues are less than 0.1 ppm.

The requested use is exactly the same as the use permitted to control Eurasian watermilfoil by the Tennessee Valley Authority. The depths of the areas to be treated range from 3 to 10 feet, and assuming an average depth of 6 feet and negligible water flow, the proposed application rate is equivalent to approximately 2.4 ppm.

Some data indicating the residue levels resulting from the Tennessee Valley Authority applications were recently made available TOX. These data show that the butoxyethanol ester of 2,4-D is released slowly with significant levels remaining in the sediment for up to 10 months. The data also show that levels released into the water are far below the theoretical application rate. The highest level reported was 2 ppb three days after treatment. No detectable residues were found in fish.

Conclusions and Recommendation

1. The fate of 2,4-D in plants has been adequately delineated for the purpose of the requested exemption.
2. Adequate methodology is available to determine residues of 2,4-D in water fish and irrigated crops.
3. For the purpose of the requested exemption only, we can conclude that residues of 2,4-D in potable water and the secondary residues in various raw agricultural commodities will not exceed the established tolerances.
4. The existing tolerances for residues of 2,4-D in meat, milk, poultry or eggs are adequate to cover any residues that may result in these commodities from the proposed exemption.
6. Toxicological considerations permitting, we recommend that the requested Section 18 exemption be granted.

cc: Reading file
Circu
Reviewer
S.F. 2,4-D
Section 18
TOX

TS-769:Reviewer:JMWorthington:Typed by:JMW:LDT:X77324:CM#2:RM:810:Date:7/ /81
RDI:Section Head:RHJ:Date:7/1/81:RDS:Date: 7/1/81