

101201

10-25-76

(3)

EEE BRANCH REVIEW

DATE: IN 8/6/76 OUT 8/25/76 IN \_\_\_\_\_ OUT \_\_\_\_\_ IN \_\_\_\_\_ OUT \_\_\_\_\_  
FISH & WILDLIFE ENVIRONMENTAL CHEMISTRY EFFICACY

FILE OR REG. NO. 00239-OEULE

PETITION OR EXP. PERMIT NO. \_\_\_\_\_

DATE DIV. RECEIVED \_\_\_\_\_

DATE OF SUBMISSION \_\_\_\_\_

DATE SUBMISSION ACCEPTED \_\_\_\_\_

TYPE PRODUCT(S): (I) D, H, F, N, R, S \_\_\_\_\_PRODUCT MGR. NO. GEE (16)PRODUCT NAME(S) MONITORCOMPANY NAME CHEVRONSUBMISSION PURPOSE Registration - technical gradeCHEMICAL & FORMULATION O,S-dimethyl phosphoramidothioate (72%)

100.0 Pesticidal Use - Insecticide

100.3 Purpose of Submission - Register technical product for formulation use.

100.4 Environmental Precautions - This product is toxic to birds and other wildlife. Keep out of any body of water. Do not contaminate water by cleaning of equipment or disposal of wastes.

101.0 A. Chemical and Physical Properties

101.1 Chemical Name - O,S-dimethyl phosphoramid-othioate

101.2-101.6 See previous reviews

103.0 Toxicological Properties

103.1 Acute Toxicity

<u>ORGANISM</u>	<u>TEST</u>	<u>RESULT</u>	<u>MATERIAL</u>	<u>REPORT</u>
Bobwhite Quail	LC <sub>50</sub>	57.5 ppm	Monitor 75% Tech.	1
Bluegill Sunfish	LC <sub>50</sub>	46(34-62)ppm	"	2
	No discernable effect	10 ppm	"	2
Rainbow Trout	LC <sub>50</sub>	51(36-72)ppm	"	2
	No discernable effect	10 ppm	"	2

Reports Referenced:

1. Quail Toxicity of MONITOR (test S-113),  
October 18, 1968 Ref. 22, pp 482-490
2. Four-Day Fish Toxicity Study on MONITOR 75%  
Technical (Test S-112), September 27, 1968 Ref. 21, pp 469-481

The above reports are contained in Section C, MONITOR Insecticide Residue Tolerance Petition OF0956, filed April 8, 1970 (Vol. 2 of 4 volumes):

104.0 Hazard Assessment

104.1 Discussion

104.1.1 Adequacy of toxicity data.  
The referenced fish acute toxicity (96 hr. LC<sub>50</sub>) Studies are acceptable.

The referenced avian subacute dietary (LC<sub>50</sub>) study is unacceptable for the following reasons:

- (1) No data on food consumption included;
- (2) No data on pre and post test body weights included, and
- (3) Twelve weeks old birds were used rather than 2-3 week old birds.

104.1.2 Additional Data Required.

See section 104.2 - Conclusions.

104.1.3 Likelihood of Exposure to nontarget organisms

None for this use, i.e. sale of technical product for formulation of monitor insecticide products.

104.2 Conclusions.

The referenced fish acute toxicity (LC<sub>50</sub>) studies on bluegill sunfish and rainbow trout are acceptable.

However, the environmental safety staff objects to the proposed registration of technical grade Montior for the formulation of products.

Prior to further consideration of this registration, the following basic fish and wildlife studies must be submitted or referenced as per Section 3 Regulations:

- (1) Avian acute oral LD<sub>50</sub> for one species of wild waterfowl or one species of upland game bird.
- (2) Avian subacute dietary LC<sub>50</sub> for one species of wild waterfowl and one species of upland game bird.
- ~~(3) Fish acute toxicity LC<sub>50</sub> for one species of warm water fish and one species of cold water fish.~~ 12/10/76
- (3) Invertebrate acute toxicity LC<sub>50</sub> for one species of aquatic invertebrate.

With regard to number 2 above, the referenced avian subacute LC<sub>50</sub> study on bobwhite quail is unacceptable for the following reasons:

- (1) Food consumption data were not included;
- (2) Body weight data were not included; and
- (3) Twelve week old birds were used rather than 2-3 week old birds (as per section 3 Regulations).

In addition, we note that

*FSS*

Frederick S. Betz  
Fish & Wildlife Section  
Efficacy and Environmental Effects Branch