

US EPA ARCHIVE DOCUMENT

101201
SHAUGHNESSEY NO.

14
REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 12/24/80 OUT 1/9/81

FILE OR REG. NO. 239-2404, -2452

PETITION OR EXP. PERMIT NO. _____

DATE OF SUBMISSION 12/2/80

DATE RECEIVED BY HED 12/17/80

RD REQUESTED COMPLETION DATE 2/27/81

EEB ESTIMATED COMPLETION DATE _____

RD ACTION CODE/TYPE OF REVIEW 331(239-2404)/Resubmission of amendment-new use

400(239-2452)/Data submission

TYPE PRODUCT(S): I, D, H, F, N, R, S Insecticide

DATA ACCESSION NO(S). _____

PRODUCT MANAGER NO. W. Miller (16)

PRODUCT NAME(S) Monitor 4 Spray

COMPANY NAME Chevron Chemical Company

SUBMISSION PURPOSE Incremental risk assessment of proposed conditional registration
of celery use (Reply to EEB review of celery by submission of data)

| SHAUGHNESSEY NO. | CHEMICAL, & FORMULATION | % A.I. |
|------------------|--|------------|
| <u>101201</u> | <u>O,S-Dimethyl Phosphoramidothioate</u> | <u>75%</u> |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

MONITOR 4 SPRAY

100 Pesticide Label Information

100.1 Pesticide Use

An insecticide for control of leaf miners (Liriomyza Sativae) on celery in Florida.

101-102 See EEB review by N. Cook dated 8/30/78 for Monitor.

103 Toxicological Properties

See EEB review by L. Touart for Monitor dated 12/28/79 for a list of toxicity study results.

Due basic study was considered "core"; that was an aquatic invertebrate LC50 with daphnia. Two avian reproductive studies one with bobwhite the other with the mallard were also listed as "core" studies.

L. Touart, in his review on Monitor 4 dated 12/28/79, requested additional data. He also indicated that a simulated field study or field monitoring studies, could provide data that would negate concerns for unreasonable hazard.

Chevron Chemical Company responded by submitting five studies. The following is a list of those studies, their results and validation category.

| <u>Species</u> | <u>Test Type</u> | <u>Results</u> | <u>Category</u> |
|------------------------------|------------------------|-----------------|-----------------|
| <u>Daphnia Magna</u> | 48-hour acute toxicity | LC50=26ppb | Core |
| <u>Bluegill Sunfish</u> | 96-hour acute toxicity | LC50=34ppm | Core |
| <u>Rainbow Trout</u> | 96-hour acute toxicity | LC50=25ppm | Core |
| <u>Mallard Ducks</u> | 8-day dietary | LC50=1302 ppm | Core |
| <u>Bobwhite Quail (male)</u> | Acute Oral | LD50=10.1 mg/kg | |
| <u>(female)</u> | " " | LD50=11.0 mg/kg | Core |

Chevron indicated that an avian dietary study with bobwhite quail will be forwarded upon completion, and that our suggestion for field studies is under review.

103.2 Minimum Requirements

See the attached data validation records for details on the studies listed above.

104 Hazard Assessment

As indicated in EEB's review of 12/28/79, the proposed use provides for residues which exceed chronic RPAR criteria for avian species. This, of course, equates with significant chronic risks to avian species. EEB concludes, therefore, that the proposed use provides for a significant increase in chronic risks to avian species.

107 Conclusions

107.4 Data Adequacy

The five basic studies submitted with the December 10, 1980 submission were all acceptable to support registration action.

107.5 Data Requests

One basic study, the avian dietary toxicity test (preferably with bobwhite), is still required. Chevron has indicated that this study is scheduled for completion in 1981.

The EEB requirement for field studies that could produce data to negate concern for unreasonable hazards is under review by Chevron.

107.7 Recommendations

The Ecological Effects Branch has completed a 3(c)(7) finding and recommends against concurrence with the proposed use of Monitor 4 on celery in Florida. The review by L. Touart dated 12/28/79 contains the calculations showing the estimated environmental concentrations based on the proposed application rates. The residues, as presented, exceed the chronic toxicity criteria for Rebuttable Presumption Against Registration (Sec. 162.11 (a)(3)(ii)(s)). The proposed use of Monitor 4 on celery provides for a significant increase in chronic risks to avian species in the use area. Consequently, in order to rebut this finding, pertinent field research (which shows minimal risks exist) would have to be performed.

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