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RECORD NO.

SHAUGHNESSEY NO. REVIEW NO.

EEB REVIEW

DATE: IN 11-17-87 OUT 12-16-87

FILE OR REG. NO 239-2452

PETITION OR EXP. NO.

DATE OF SUBMISSION 10-1-87

DATE RECEIVED BY HED 11-16-87

RD REQUESTED COMPLETION DATE 12-16-87

EEB ESTIMATED COMPLETION DATE 12-16-87

RD ACTION CODE/TYPE OF REVIEW 352

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

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. W. Miller (16)

PRODUCT NAME(S) Methamidophos

COMPANY NAME Chevron Chemical Co.

SUBMISSION PURPOSE Protocol Review- site search:
baseline survey(Cabbage in Wisconsin)

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.

CHEMICAL NAME: Methamidophos

100.0 Purpose of Submission

The Registrant (Chevron Chemical Company) has submitted information relative to their plans to conduct a baseline (1987) and full scale avian field study (1988), at test sites near Madison, Wisconsin to determine the effects of methamidophos, when used on cabbage, to avian species.

101.0 Background Discussion

On February 13, 1986, the Agency issued a Section 3(c)(2)(b) Notice informing the Registrant that the Agency had amended the September 1982 Guidance Document for the registration of Manufacturing-Use Products and certain End-Use Products containing methamidophos as the single active ingredient. The amendment was required because the small pen (simulated field) study submitted for review was found to contain major unrepairable deficiencies. Instead of requiring that the pen study be repeated, the Agency believed that more useful data could be obtained from actual field testing and residue monitoring studies. The residue test was required to specifically address short-term, acute toxicity hazards, while the actual field test was required to address chronic, sublethal hazards and the potential for avian population reductions. Both tests are to be conducted with typical end-use products, employing normal agricultural practices and use rates. The protocols, including test site locations, must be approved by the Agency prior to test initiation (see attached D. Campt letter).

102.0 Discussion

The EEB reminds the Registrant that the full scale field study, as described in D. Campts' letter of 2/18/86, constitutes a Level 11 type study in that the purpose of the test is to determine if methamidophos, when used on cabbage, adversely impacts avian populations. The protocol must be comprehensive enough to insure that impacts can be identified and quantified.

If the protocol is submitted by early February (1988) the EEB will make every effort to review and provide comment on the adequacy of the protocol in time for the 1988 growing season.

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103.0 Conclusions

The Registrant has submitted formal notification that it intends to initiate a comprehensive residue monitoring study as well as a full scale field study to satisfy the amended data requirements for the Methamidophos Registration Standard. The Registrant also intends to conduct a preliminary study during 1987 to collect baseline data. The Registrant plans on submitting the study protocols to EEB in early February of 1988. The EEB will make every effort to review these protocols in time for the 1988 growing season.

Richard W. Felthousen, Wildlife Biologist
Ecological Effects Branch
Hazard Evaluation Division

Norm Cook, Head- Section 2
Ecological Effects Branch
Hazard Evaluation Division
1.5.88

Harry Craven, Acting Chief
Ecological Effects Branch
Hazard Evaluation Division
1.5.88

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

mailed 2/13/86

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

CERTIFIED MAIL

Dear Registrant:

Subject: Amendment to the September 1982 Guidance Document for the Reregistration of Manufacturing-Use Products and Certain End-Use Products Containing Methamidophos as the Single Active Ingredient

This Notice is to inform you that the Guidance Document for the registration of methamidophos is being amended to require registrants of manufacturing-use products to submit certain data not previously required in the September 1982 Methamidophos Guidance Document.

If you do not respond to this Notice, or if you do not satisfy EPA that you will comply with its requirements or should be exempt from doing so, then the registration(s) of your product(s) subject to this Notice will be suspended. We have provided a list of all of your products subject to this Notice (Attachment A), as well as a list of all registrants who have received this Notice (Attachment B).

The authority for this Notice is Section 3(c)(2)(B) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. §136a(c)(2)(B).

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WHY YOU ARE RECEIVING THIS NOTICE NOW

Additional data are needed to fully assess the potential hazard to avian species from the use of methamidophos. The submitted small pen (simulated field study) on birds which was required under the September 1982 Guidance Document to address this potential hazard, has been evaluated and has been found to contain major unrepairable deficiencies.

Instead of requiring that the pen study be repeated, the Agency believes that more useful data can be obtained from actual field testing and residue monitoring studies. Therefore, the Agency is requiring residue monitoring and actual field testing to address the potential hazard to avian species resulting from the use of methamidophos.

The residue test is required to specifically address short-term, acute toxicity hazards, and the actual field test is required to address chronic, sublethal hazard and potential for avian population reduction. Both tests are to be conducted with typical end-use products, employing normal agricultural practices and maximum use rates. The protocols, including test site selection, must be approved by the Agency prior to test initiation.

DATA REQUIRED

A. Data Needed

1. §70-1: Special Tests: Field Residue Monitoring.

This study will involve monitoring of methamidophos residues on avian food items in selected field crops. A major objective of this study is to determine the acute, short-term hazard to birds from methamidophos residues on avian food items. Soil, vegetation, nontarget insects and water should be monitored for residues over a full year's time on a minimum of the following five crops: cotton, cabbage, celery, sugarbeets, and potatoes. Free-living, nontarget wildlife will be collected on a regular basis in these crops, and analyzed for brain and blood cholinesterase, and residue levels. Selected avian species sampling will be of special emphasis.

2. §71-5: Actual Field Testing.

This study will involve a full-scale actual field test of avian population in selected field crops. A major objective of this study is to determine the

chronic, sublethal effects and the population reduction hazard to birds from use of methamidophos. The multiple-year study should be conducted on a minimum of the following two crops: cotton and cabbage. These crops are selected as representative of, in the case of cotton, a large acreage crop with potential for nontarget risk to both aquatic and terrestrial organisms. Cabbage is selected as a representative of a potentially important forage source for birds and one that is found in ecologically diverse areas with considerable interspersion of wildlife habitat throughout the production areas. Cabbage also is important because it is grown year round in areas frequented by nesting and/or migratory birds. Minimum test parameters should include nest box monitoring for sublethal, chronic effects, avian brain, blood and carcass analysis for residues and/or cholinesterase depression, behavioral monitoring for sublethal, chronic effects, and individual fate determinations for selected, marked individuals of avian populations on the study sites.

This study will entail a one-year baseline study wherein nest boxes are established and the nontarget wildlife community is characterized and quantified. No methamidophos will be used the first year. In the second and third year methamidophos will be used and the wildlife, soil, vegetation, water and nest boxes monitored for the appropriate parameters. The data thus generated will permit comparison between a pre- and post-treatment data set to statistically determine chronic risk and population reduction hazards.

B. Schedules for Submission of Data

Data must be submitted according to the following schedules:

1. §70-1 Special Tests - Field Residue Monitoring

Your proposed protocol for this study must be submitted within 6 months from date of receipt of this Notice. The study must be submitted within 15 months from date of acceptance of the protocol by the Agency.

2. §71-5 Actual Field Testing

Your proposed protocol for this study must be submitted within 6 months from date of receipt of this Notice. The study must be submitted within 42 months from date of acceptance of the protocol by the Agency.

COMPLIANCE WITH REQUIREMENTS OF THIS NOTICE

Within 90 days of receiving this Notice, you must submit for each of your products subject to this Notice a completed copy of the "FIFRA section 3(c)(2)(B) Summary Sheet," (EPA Form 8580-1, Attachment C). On that sheet you must state which option(s) you have selected to comply with this Notice. At the same time, you must also submit any additional documents required to support the option(s) chosen. The Summary Sheet and other attachments are provided to assist you in accurately and quickly responding to this Notice. Do not alter the printed material.

INQUIRIES AND RESPONSES TO THIS NOTICE

All correspondence or questions concerning this Notice should be directed to:

William H. Miller
Product Manager (16)
Registration Division (TS-767)
U.S. Environmental Protection Agency,
401 M Street SW.,
Washington, DC 20460.
(703) 557-2600

Sincerely,

for Douglas D. Campt, Director
Registration Division

Enclosures:

Attachment A = List of Registrant's Products Containing Methamidophos
B = List of all Registrants Receiving This Notice
C = Section 3(c)(2)(B) Summary Sheet