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

JAN 24 1992

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Diazinon Product and Residue Chemistry Reregistration Standard Updates: CBRS Nos. 6496 & 6783: No DP Barcode.

FROM: Edward Zager, Chief
Chemistry Branch II - Reregistration Support (CBRS)
Health Effects Division (H7509C)

TO: Lois Rossi, Chief
Reregistration Branch
Special Review & Reregistration Division (H7508W)

and

William Burnam, Ph.D., Chief
Science Analysis and Coordination Branch
Health Effects Division (H7509C)

Attached are the updates to the Product and Residue Chemistry Chapters of the Diazinon Reregistration Standard. These updates were prepared by Dynamac Corporation under supervision of CBRS, HED. They have undergone secondary review in the Branch and have been revised to reflect Agency policies.

Please note that the Residue Chemistry Update contains reviews of the following data packages.

(1) No DP Barcode; MRID 41386401; CBRS #6496; Sheep metabolism study.
(2) No DP Barcode; MRID 41528901; CBRS #6783; Storage stability of residues.

If you need additional input please advise.

Attachment 1: Diazinon Residue Chemistry Reregistration Standard Update.

Attachment 2: Diazinon Product Chemistry Reregistration Standard Update.

Attachment 3: Confidential Appendices A, B, C & D of the Diazinon Product Chemistry Reregistration Standard Update.

cc (with attachments 1, 2 & 3): C. Olinger, Diazinon Registration Standard File, Diazinon Subject File, C. Furlow (PIB/FOD)

cc without attachments: RF, Circu.

DYNAMAC
CORPORATION

Final Report

DIAZINON
Shaughnessy No. 057801
Task 4: Product Chemistry
Reregistration Standard Update

August 12, 1991

Contract No. 68-D8-0080

Submitted to:
Environmental Protection Agency
Arlington, VA 22202

Submitted by:
Dynamac Corporation
The Dynamac Building
2275 Research Boulevard
Rockville, MD 20850-3268

DIAZINON

SHAUGHNESSY NO. 057801

REREGISTRATION STANDARD UPDATE

PRODUCT CHEMISTRY

TASK 4

INTRODUCTION

A Product Search Listing conducted 3/14/91 identifies the diazinon manufacturing-use products which are listed below in Table 1.

Table 1. Diazinon manufacturing-use products (MPs), and submitted data and corresponding Agency reviews.

Company Formulation	EPA Reg. No.	Data submissions (MRID Numbers)	Agency Review[a] CBRS No.	Date
Ciba-Geigy Corporation				
87% FI	100-524	40406501-03 4046507-09	4083-5	8/25/88
		40782601-02	4325-6	10/3/88
		CSFs (No MRID)	4610-12	12/16/88
23.8% FI	100-652	40911501-03	4785	2/4/89
		41115701	5453	7/27/89
5% FI	100-714	none		
Prentiss Drug and Chemical Co., Inc.				
80% FI	655-473	40488602 40783801		
50% FI	655-463	40488606 40783901		
48.7% FI	655-500	40488603 40783701		
25% FI	655-595	40488604 40783601		
10% FI	655-401	40488601 40784001		
Fairfield American Corporation				
25% FI	4816-685	none		
10.005% FI	4816-640	40449501 41757104		
5% FI	4816-245	40449301 41757102		
5% FI	4816-621	40449201 41757103		
0.71% FI	4816-181	40449401 41757101		
Southern Mill Creek Products				
70.31% FI	6720-201	none		
25% FI	6720-199	none		
12.5% FI	6720-197	none		

(Continued.)

Table 1. (Continued.)

Company Formulation	EPA Reg. No.	Data submissions (MRID Numbers)	Agency Review[a] CBRS No.	Date
Makhteshim Agan, Inc.				
92% FI	11678-6	41249901-02 41278901	6008	12/12/89
		40423501-03	4086-7	9/7/89
87% FI	11678-20	40423401-03	4086-7	9/7/89
		40833501 41359501		
Drexel Chemical Company				
87% T	19713-104	none		
Nichimen America, Inc.				
87% FI	33649-1[b]	41334601-06		
(Trans Chemic		40404301, 40404801	4082,4088	9/2/88)

[a] All Agency reviews were conducted by G. Makhijani.
[b] The Nichimen America 87% FI was transferred from Trans Chemic Industries, Inc. (EPA Reg. No. 9618-23).

The Ciba-Geigy, Makhteshim, and Nichimen FIs are manufactured from unregistered unstabilized technicals. The Prentiss and Fairfield American products are formulated from an EPA registered product; generic product chemistry requirements will be addressed by the registrant of the technical source product.

The Diazinon Registration Standard-Update #1 dated 3/24/88 requires submission of all new generic and product-specific chemistry data for the diazinon manufacturing-use products. In response to the Registration Standard-Update #1 and a Data Call-In dated 5/1/87, Ciba-Geigy, Makhteshim, and Trans Chemic submitted data which have been reviewed by the Agency. Prentiss, Fairfield American, and Makhteshim have submitted additional data for their diazinon products, and following the transfer of the 87% FI to Nichimen America, Nippon submitted all new data for the Nichimen America 87% FI and unregistered T. These data are reviewed in this Update document for their adequacy in fulfilling the outstanding data requirements. All data submissions and any corresponding Agency reviews are presented above in Table 1. Data previously reviewed by the Agency will be referenced by submission number only in the body of this document.

Corresponding to each of the Topics discussed below are the Guideline Reference Numbers from "Pesticide Assessment Guidelines - Subdivision D - Product Chemistry", referred to in Title 40 of the Code of Federal Regulations (40 CFR), Part 158, "Data Requirements for Registration", Subpart C, "Product Chemistry Data Requirements". These regulations and guidelines explain the

minimum data that the Agency needs to adequately assess the product chemistry of diazinon.

	Guidelines Reference No. from 40 CFR §158.155-190
Product Composition and Manufacture	61-(1-3)
Analysis and Certification of Product Ingredients .	62-(1-3)
Physical and Chemical Characteristics	63-(2-20)

SUMMARY

The following Diazinon Product Chemistry data are required:

- For the Ciba-Geigy 23.8% FI (EPA Reg. No. 100-652) data pertaining to certified limits and storage stability.

- For the Ciba-Geigy 5% FI (EPA Reg. No. 100-714) data pertaining to product composition, starting materials and the manufacturing process, discussion of formation of impurities, preliminary analysis, certified limits, enforcement analytical methods, and all physical/chemical characteristics.

- For the Prentiss 80% FI (EPA Reg. No. 655-473), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI (EPA Reg. No. 655-401) data pertaining to the product composition, starting materials and formulation process, preliminary analysis, certified limits, enforcement analytical methods, specific gravity, storage stability, corrosiveness, and the methods for all MP physicochemical characteristics.

- For the Prentiss 50% FI (EPA Reg. No. 655-463) data pertaining to the product composition, starting materials and formulation process, preliminary analysis, certified limits, enforcement analytical methods, storage stability, corrosiveness, and the methods for all MP physicochemical characteristics.

- For the Fairfield American 25% FI (EPA Reg. No. 4816-685) all data specified in the Diazinon Registration Standard-Update #1.

- For the Fairfield American 10.005% FI (EPA Reg. No. 4816-640) data pertaining to product composition, starting materials and manufacturing process, preliminary analysis, certified limits, enforcement analytical methods, color, corrosiveness, and the methods for all physicochemical properties of the MP.

- For the Fairfield American 5% FIs (EPA Reg. No. 4816-245 and 4816-62) and 0.71% FI (EPA Reg. No. 4816-181) data pertaining to product composition, starting materials and manufacturing process, preliminary analysis, certified limits, enforcement analytical methods, color, corrosiveness, and the methods for all physicochemical properties of the MP.

- For the Makhteshim 92% FI (EPA Reg. No. 11678-6) data pertaining to preliminary analysis, enforcement analytical methods, stability (TGAI), storage stability, and viscosity.

- For the Makhteshim 87% FI (EPA Reg. No. 11678-20) data pertaining to preliminary analysis, certified limits, enforcement analytical methods, stability (TGAI), storage stability, and viscosity.

- For the Nichimen America 87% FI (EPA Reg. No. 33694-1) data pertaining to product composition and certified limits.

- For the Drexel 87% T (EPA Reg. No. 19713-104) all data specified in the Diazinon Registration Standard-Update #1.

- For the Southern Mill Creek 70.31% FI (EPA Reg. No. 6720-201), 25% FI (EPA Reg. No. 6720-199), and 12.5% FI (EPA Reg. No. 6720-197) all data specified in the Diazinon Registration Standard-Update #1.

PRODUCT IDENTITY AND COMPOSITION

61-1. Product Composition

The Diazinon Registration Standard-Update #1 dated 3/24/88 requires all new product-specific data concerning product composition. In response, the registrants have submitted the following data.

Ciba-Geigy submitted data (1987, 1988; MRIDs 40406501, 40406507, and 40911501) which have been reviewed by the Agency and were found to satisfy the requirements of 40 CFR §158.155 (Guideline Reference No. 61-1) regarding the product composition of the unregistered technical, the 87% FI (EPA Reg No. 100-524), and the 23.8% FI (EPA Reg. No 100-652). No additional data are required.

Prentiss has submitted data (1988; MRIDs 40488601-40488604, and 40488606) for the 80% FI (EPA Reg No. 655-473), 50% FI (EPA Reg. No. 655-463), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI (EPA Reg. No. 655-401). The registrant

indicates that Confidential Statements of Formulas (CSFs) were included in the submissions; however, these were not available for review. The submitted data are presented in the Prentiss Confidential Appendix A, and do not satisfy the requirements of 40 CFR §158.155 (Guideline Reference No. 61-1) regarding product composition of the Prentiss FIs because nominal concentrations, the purpose, and chemical names were not provided for all of the active and inert ingredients. In addition, EPA registration numbers are required for the pyrethrum and piperonyl butoxide technicals listed for the 25% and 10% FIs. Additional data are required.

Fairfield American has indicated (1987; MRIDs 40449201, 40499301, 40499401, and 40499501) that CSFs have been submitted to the Agency for the 10.005% (EPA Reg. No. 4816-640), 5% FI (EPA Reg. No. 4816-245), 5% FI (EPA Reg. No. 4816-621), and 0.71% FI (EPA Reg. No. 4816-181); however, these data are not available for review. All data requirements specified in the Diazinon Registration Standard-Update #1 pertaining to this topic remain outstanding for the Fairfield American FIs.

Makhteshim submitted data (1987, 1989; MRIDs 40423401, 40423501, and 41278901) which have been reviewed by the Agency and were found to satisfy the requirements of 40 CFR §158.155 (Guideline Reference No. 61-1) regarding product composition of the unregistered technical, and the 92% and 87% FIs (EPA Reg. Nos. 11678-6 and 11678-20, respectively). No additional data are required.

Nippon Kayaku has submitted data (1989; MRIDs 41334601, 41334602, 41334604, and 41334605) pertaining to the product composition of the unregistered T and Nichimen America 87% FI (EPA Reg. No. 33694-1). These data are presented in the Nichimen America Confidential Appendix A, and do not satisfy the requirements of 40 CFR §158.155 (Guideline Reference No. 61-1) regarding product composition of the 87% FI because the nominal concentrations of the impurities were not provided. In addition, the inert ingredients and their nominal concentrations were not provided. Additional data are required.

No data pertaining to product composition have been submitted for the Ciba-Geigy 5% FI (EPA Reg. No. 100-714), Fairfield American 25% FI (EPA Reg. No. 4816-685), Southern Mill Creek 70.31%, 25%, and 12.5% FIs (EPA Reg. Nos. 6720-201, 6720-199, and 6720-197, respectively), and Drexel 87% T (EPA Reg. No. 19713-104); all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding for these products.

61-2. Starting Materials and Manufacturing Process

The Diazinon Registration Standard-Update #1 dated 3/24/88 requires all new generic and product-specific data for diazinon regarding starting materials and manufacturing/formulation processes. In response, the registrants have submitted the following data.

Ciba-Geigy submitted data (1987, 1988; MRIDs 40406501, 40406507, and 40911501) which have been reviewed by the Agency and were found to satisfy the requirements of 40 CFR §158.160-165 (Guideline Reference No. 61-2) concerning the starting materials and the manufacturing process for the unregistered technical, the 87% FI (EPA Reg No. 100-524), and the 23.8% FI (EPA Reg. No 100-652). No additional data are required.

Prentiss has submitted data (1988; MRIDs 40488601-40488604, and 40488606) regarding the starting materials and the formulation process for the 80% FI (EPA Reg No. 655-473), 50% FI (EPA Reg. No. 655-463), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI (EPA Reg. No. 655-401). These data are presented in the Prentiss Confidential Appendix B, but do not satisfy the requirements of 40 CFR §158.160-165 (Guideline Reference No. 61-2) regarding starting materials and the manufacturing process of the Prentiss FIs because the following were not provided: (i) EPA Reg. Nos. for the pyrethrum extract and piperonyl butoxide technicals in the 25% and 10% FIs; (ii) the name and address of the suppliers and technical specifications of the pyrethrum extract and piperonyl butoxide technicals in the 25% and 10% FIs and of the inert ingredients in all of the FIs; and (iii) a description of the manufacturing equipment used for the formulation of the 50% FI. Additional data are required.

Fairfield American has submitted data (1987; MRIDs 40449201, 40449301, 40449401, and 40449501) which are presented in the Fairfield American Confidential Appendix A. These data do not satisfy the requirements of 40 CFR §158.160-165 (Guideline Reference No. 61-2) regarding starting materials and the formulation process of the 10.005% FI (EPA Reg. No. 4816-640), 5% FI (EPA Reg. No. 4816-245), 5% FI (EPA Reg. No. 4816-621), and 0.71% FI (EPA Reg. No. 4816-181) because the registrant did not provide information on the relative amounts of the materials, a description of the equipment, and the duration of the formulation process used to produce the products. Additional data are required.

Makhteshim submitted data (1987, 1989; MRIDs 40423401, 40423501, and 41278901) which have been reviewed by the Agency and were found to satisfy the requirements of 40 CFR §158.160-165 (Guideline Reference Nos. 61-2) regarding starting materials and the manufacturing process for the unregistered technical, and the 92%

and 87% FIs (EPA Reg. Nos. 11678-6 and 11678-20, respectively). No additional data are required.

Nippon Kayaku has submitted data (1989; MRIDs 41334601 and 41334604) pertaining to the starting materials and manufacturing process of the unregistered T and Nichimen America 87% FI (EPA Reg. No. 33694-1). These data are presented in the Nichimen America Confidential Appendix B, and satisfy the requirements of 40 CFR §158.160-165 (Guideline Reference No. 61-2) regarding starting materials and the manufacturing process of the unregistered T and 87% FI. No additional data are required.

No information pertaining to the starting materials and the manufacturing process have been submitted for the Ciba-Geigy 5% FI (EPA Reg. No. 100-714), Fairfield American 25% FI (EPA Reg. No. 4816-685), Southern Mill Creek 70.31%, 25%, and 12.5% FIs (EPA Reg. Nos. 6720-201, 6720-199, and 6720-197, respectively), and Drexel 87% T (EPA Reg. No. 19713-104); all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding for these products.

61-3. Discussion of the Formation of Impurities

The Diazinon Registration Standard-Update #1 dated 3/24/88 requires all new generic and product-specific data for diazinon regarding discussion of formation of impurities. In response, the registrants have submitted the following data.

Ciba-Geigy submitted data (1987, 1988; MRIDs 40406501, 40406507, and 40911501) which have been reviewed by the Agency and were found to satisfy the requirements of 40 CFR §158.167 (Guideline Reference No. 61-3) pertaining to discussion of the formation of impurities in the unregistered technical, the 87% FI (EPA Reg No. 100-524), and the 23.8% FI (EPA Reg. No 100-652). No additional data are required.

Prentiss has submitted the discussions (1988; MRIDs 40488601-40488604, and 40488606) presented in Prentiss Confidential Appendix C for the 80% FI (EPA Reg No. 655-473), 50% FI (EPA Reg No. 655-463), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI (EPA Reg. No. 655-401). This information satisfies the requirements of 40 CFR §158.167 (Guideline Reference No. 61-3) regarding discussion of formation of impurities for the Prentiss FIs. No additional data are required.

Fairfield American has submitted discussions of the formation impurities (1987; MRIDs 40449201, 40499301, 40499401, and 40499501) which are presented in the Fairfield American Confidential Appendix B. These data satisfy the requirements 40 CFR §158.167 (Guideline Reference No. 61-3) regarding

discussion of formation of impurities in the 10.005% FI (EPA Reg. No. 4816-640), 5% FI (EPA Reg. No. 4816-245), 5% FI (EPA Reg. No. 4816-621), and 0.71% FI (EPA Reg. No. 4816-181). No additional data are required.

Makhteshim submitted information (1987, 1989; MRIDs 40423401, 40423501, and 41278901) which has been reviewed by the Agency and was found to satisfy the requirements of 40 CFR §158.167 (Guideline Reference No. 61-3) regarding discussion of the formation of impurities for the unregistered technical, and the 92% and 87% FIs (EPA Reg. Nos. 11678-6 and 11678-20, respectively). No additional data are required.

Nippon Kayaku has submitted a discussion (1989; MRIDs 41334601 and 41334604) pertaining to the formation of impurities including the potential for the formation of sulfur derivatives of tetraethyl pyrophosphate (TEPP) in the unregistered T and Nichimen America 87% FI (EPA Reg. No. 33694-1). This information is presented in the Nichimen America Confidential Appendix C, and satisfies the requirements of 40 §CFR 158.167 (Guideline Reference No. 61-3) regarding a discussion of the formation of impurities in the unregistered T and 87% FI. No additional data are required.

No discussions of the formation of impurities have been submitted for the Ciba-Geigy 5% FI (EPA Reg. No. 100-714), Fairfield American 25% FI (EPA Reg. No. 4816-685), Southern Mill Creek 70.31%, 25%, and 12.5% FIs (EPA Reg. Nos. 6720-201, 6720-199, and 6720-197, respectively), and Drexel 87% T (EPA Reg. No. 19713-104); all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding for these products.

ANALYSIS AND CERTIFICATION OF PRODUCT INGREDIENTS

62-1. Preliminary Analysis

The Diazinon Registration Standard-Update #1 dated 3/24/88 requires all new generic and product-specific data for diazinon regarding preliminary analysis. In response, the registrants have submitted the following data.

Ciba-Geigy submitted data (1987, 1988; MRIDs 40406502, 40406508, 40911502, and 41115701) which have been reviewed by the Agency and were found to satisfy the requirements of 40 CFR §158.170 (Guideline Reference No. 62-1) regarding preliminary analysis of the unregistered technical, the 87% FI (EPA Reg No. 100-524), and the 23.8% FI (EPA Reg. No 100-652). No additional data are required.

Prentiss submitted data (1988; MRIDs 40488601-40488604, and 40488606) regarding the concentration of the active ingredient in five batches of each of its FIs. These data are presented in the Prentiss Confidential Appendix D and do not satisfy the data requirements of 40 CFR §158.170 (Guideline Reference No. 62-1) pertaining to preliminary analysis because data regarding the identification and quantification of tetraethyl pyrophosphate (TEPP) or the sulfur derivatives of TEPP in the Prentiss FIs were not included. Additional data are required.

Makhteshim submitted data (1987, 1989; MRIDs 40423402, 40423502, and 41249901) which have been reviewed by the Agency and were found to satisfy the requirements regarding preliminary analysis of the unregistered technical. The registrant has submitted supplemental data (1989; MRID 41359501) pertaining to the preliminary analysis of the impurities found in the unregistered technical. These data are presented in the Makhteshim Confidential Appendix A. These data satisfy the requirements of 40 CFR §158.170 (Guideline Reference No. 62-1) regarding preliminary analysis of the unregistered technical. However, additional preliminary analysis data including the identification and quantitation of tetraethylpyrophosphate (TEPP) or sulfur derivatives of TEPP in the 92% and 87% FIs have been requested by the Agency (CBRS Memorandum No. 6008). Additional data are required.

Nippon Kayaku has submitted data (1989; MRIDs 41334602 and 41334605) pertaining to the preliminary analysis of five batches of the unregistered T and Nichimen America 87% FI (EPA Reg. No. 33694-1). These data are presented in the Nichimen America Confidential Appendix D, and satisfy the requirements of 40 CFR §158.170 (Guidelines Reference No. 62-1) regarding preliminary analysis of the unregistered T and 87% FI. No additional data are required.

No data pertaining to preliminary analysis have been submitted for any of the Ciba-Geigy 5% FI (EPA Reg. No. 100-714), the Fairfield American 25% FI (EPA Reg. No. 4816-685), 10.0005% FI (EPA Reg. No. 4816-640), 5% FIs (EPA Reg. Nos.4816-245 and 4816-621), and 0.71% FI (EPA Reg. No. 4816-181), the Southern Mill Creek 70.31%, 25%, and 12.5% FIs (EPA Reg. Nos. 6720-201, 6720-199, and 6720-197, respectively), and the Drexel 87% T (EPA Reg. No. 19713-104). All data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding, including the identification and quantification of tetraethyl pyrophosphate (TEPP) and the sulfur derivatives of TEPP in all of the FIs. Additional data are required.

62-2. Certified Limits

The Diazinon Registration Standard-Update #1 dated 3/24/88 requires all new product-specific data for diazinon regarding certification of ingredient limits. In response, the registrants have submitted the following data.

Ciba-Geigy submitted data (1987, 1988; MRIDs 40406502, 40406508 and CSFs) which have been reviewed by the Agency and were found to satisfy the requirements of 40 CFR §158.175 (Guideline Reference No. 62-2) regarding certified limits for the unregistered technical and the 87% FI (EPA Reg No. 100-524). Ciba-Geigy also submitted data (1988, 1989; MRIDs 40911502 and 41115701) which were reviewed by the Agency and were found not to satisfy the requirements of 40 CFR §158.175 (Guideline Reference No. 62-2) for the 23.8% FI (EPA Reg. No. 100-652) regarding certified limits because an upper certified limit for the active ingredient was not provided and the certified limits must be resubmitted on EPA Form 8570-4 (Rev. 2-85). No additional data are required for the unregistered technical and 87% FI. Additional data are required for the 23.8% FI.

Prentiss has submitted data (1988; MRIDs 40488601-40488604, and 40488606) for the 80% FI (EPA Reg No. 655-473), 50% FI (EPA Reg. No. 655-463), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI (EPA Reg. No. 655-401). These data are discussed in the Prentiss Confidential Appendix A, and do not satisfy the requirements of 40 CFR §158.175 (Guideline Reference No. 62-2) regarding certified limits for the Prentiss FIs because the proposed certified limits are not based on the nominal concentration (label claim) of the technical source product(s). Revised information must be submitted on EPA Form 8570-4 (Rev. 2-85). Additional data are required.

Fairfield America indicates (1987; MRIDs 40449201, 40499301, 40499401, and 40499501) that CSFs have been submitted to the Agency for the 10.005% (EPA Reg. No. 4816-640), 5% FI (EPA Reg. No. 4816-245), 5% FI (EPA Reg. No. 4816-621), and 0.71% FI (EPA Reg. No. 4816-181); however, these data are unavailable for review. The registrant explains that certified limits are based on the stability of the products, the limits of the manufacturing process and the toxicity of the products. All data requirements specified in the Diazinon Registration Standard-Update #1 pertaining to this topic remain outstanding for the Fairfield American FIs.

Makhteshim submitted data (1987; MRIDs 40423402 and 40423502) which have been reviewed by the Agency. The Agency found the data submitted for the 92% FI (EPA Reg. No. 11678-6) to satisfy the requirements of 40 CFR §158.175 (Guideline Reference No. 62-2) regarding certified limits; however, the data submitted for the 87% FI (EPA Reg. No. 11678-20) were found not to satisfy the

requirements of 40 CFR §158.175 (Guideline Reference No. 62-2) because of errors in the submission; a revised Confidential Statement of Formula (CSF) listing the active ingredient and impurities was requested. Additional data are required.

Nippon Kayaku has submitted data (1989; MRIDs 41334601, 41334602, 413346034, and 41334605) pertaining to certified limits of the unregistered T and Nichimen America 87% FI (EPA Reg. No. 33694-1). These data are presented in the Nichimen America Confidential Appendix A, and do not satisfy the requirements of 40 CFR §158.175 (Guidelines Reference No. 62-2) regarding the certified limits of the 87% FI because the inert ingredients were not provided with upper and lower certified limits and certified limits were not submitted on EPA Form 8570-4 (Rev. 2-85). Additional data are required.

No data pertaining to certified limits have been submitted for the Ciba-Geigy 5% FI (EPA Reg. No. 100-714), Fairfield American 25% FI (EPA Reg. No. 4816-685), Southern Mill Creek 70.31%, 25%, and 12.5% FIs (EPA Reg. Nos. 6720-201, 6720-199, and 6720-197, respectively), and Drexel 87% T (EPA Reg. No. 19713-104); all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding for these products.

62-3. Enforcement Analytical Methods

The Diazinon Registration Standard-Update #1 dated 3/24/88 requires all new product-specific data for diazinon regarding analytical methods to verify certified limits. In response, the registrants have submitted the following data.

Ciba-Geigy submitted data (1987, 1988; MRIDs 40406502, 40406508, 40911502, and 41115701) which have been reviewed by the Agency and were found to satisfy the requirements of 40 CFR §158.180 (Guideline Reference No 62-3) regarding enforcement analytical methods for the unregistered technical, the 87% FI (EPA Reg No. 100-524), and the 23.8% FI (EPA Reg. No 100-652). No additional data are required.

Prentiss submits (1988; MRIDs 40488601-40488604, and 40488606) that standardized methods in Williams, S., ed. 1984 "Official Methods of Analysis of the Association of Official Analytical Chemists", Association of Official Chemists Arlington, Virginia were used for determination of diazinon (Method 6.590), and the pyrethrins and piperonyl butoxide (Method 6.194). The registrant claims the precision and accuracy of these methods meet or exceed the recommendations given by EPA. This information does not satisfy the requirements of 40 CFR §158.180 (Guideline Reference No 62-3) regarding enforcement analytical methods for the 80% FI (EPA Reg No. 655-473), 50% FI (EPA Reg. No. 655-463), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI

(EPA Reg. No. 655-401) because a description of the analytical methods used to determine the active ingredients and supporting validation data were not submitted. Additional data are required.

Fairfield American submitted (1987; MRIDs 40449201, 40499301, 40499401, and 40499501) a gas-liquid chromatography method (GLC; Method FAC-7) for analysis of diazinon in formulated products. Product samples and standards are prepared in acetone with dibutyl phthalate as the internal standard. The extracts are analyzed by GC using a glass column packed with 3% Carbowax 20M on 80/100 mesh Gas Chrom Q and a flame ionization detector (FID). The registrant included a typical chromatogram and reported a relative standard deviation of 1.68%. They demonstrated satisfactory linearity for 3-100 µg sample injections. Fairfield American also submitted (1987; MRIDs 40449201, 40499301, 40499401, and 40499501) a liquid chromatography method (LC; Method FAC-13) for the determination of three other active ingredients (pyrethrin I, pyrethrin II, and piperonyl butoxide) in the diazinon FIs. Product samples and standards are prepared in methanol or ethanol. Samples are assayed on a Phenomenex C-18 reverse-phase column using a UV detector set at a wavelength of 240 or 254 nm. The registrant included a typical LC chromatogram of pyrethrin I, pyrethrin II, and piperonyl butoxide. These data do not satisfy the requirements of 40 CFR 158.180 (Guideline Reference No. 62-3) regarding enforcement analytical methods for the active ingredients in the 10.005% FI (EPA Reg. No. 4816-640), 5% FI (EPA Reg. No. 4816-245), 5% FI (EPA Reg. No. 4816-621), and 0.71% FI (EPA Reg. No. 4816-181) because incomplete validation data were submitted. Additional data are required.

Makhteshim submitted data (1987, 1989; MRIDs 40423402, 40423502, and 41249901) which have been reviewed by the Agency and were found not to satisfy the requirements of 40 CFR 158.180 (Guideline Reference No. 62-3) regarding enforcement analytical methods for the 92% and 87% FIs (EPA Reg. No. 11678-6 and 11678-20, respectively) because the registrant did not submit detailed analytical methods for the determination of the active ingredient and impurities, and complete validation data. Additional data are required.

Nippon Kayaku has submitted analytical methods (1989; MRIDs 41334602 and 41334605) for the unregistered T and Nichimen America 87% FI (EPA Reg. No. 33694-1). The enforcement methods submitted for the determination of impurities are presented in the Nichimen America Confidential Appendix E. A gas chromatography method (GC Method No. NK-1) was submitted for the determination of diazinon per se in the unregistered T and 87% FI. The samples are dissolved in n-hexane and shaken with 3N sulfuric acid. The hexane layer is treated with hydrochloric acid:water (3:1) and the resulting water soluble diazinon-hydrochloride phase is sequentially washed in n-hexane, benzene,

n-hexane, ice water, and n-hexane at <5 C. The n-hexane layer is washed with 3N sulfuric acid, dehydrated with anhydrous mirabilite, and filtered. The filtrate is poured through a carbon column and the column is repeatedly washed with n-hexane and with 3N sulfuric acid. A known amount of the sample solution and the internal standard solution, di-n-butylphthalate (DNBP) are injected into a GC equipped with a flame ionization detector and glass column packed with 5% OV-17 on Gaschrom Q 60/80 mesh. Quantification is by calculation of the peak area ratios of diazinon:DNBP. The registrant reported a standard deviation of 0.083%, accuracy of ±0.25%, and a recovery of >99% in five samples following fortification of a standard solution with diazinon. The submitted methods satisfy the requirements of 40 CFR §158.180 (Guidelines Reference No. 62-3) regarding enforcement analytical methods for the determination of the active ingredient and impurities of the 87% FI (EPA Reg. No 33694-1). No additional data are required.

No methods for the enforcement of certified limits have been submitted for the Ciba-Geigy 5% FI (EPA Reg. No. 100-714), Fairfield American 25% FI (EPA Reg. No. 4816-685), Southern Mill Creek 70.31%, 25%, and 12.5% FIs (EPA Reg. Nos. 6720-201, 6720-199, and 6720-197, respectively), and Drexel 87% T (EPA Reg. No. 19713-104); all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding for these products.

PHYSICAL AND CHEMICAL CHARACTERISTICS

The Diazinon Registration Standard-Update #1 dated 3/24/88 requires all new generic and product-specific data for all physical and chemical characteristics pertinent to the technical grade of the active ingredient and manufacturing-use products.

The physical and chemical characteristics of the diazinon purified active ingredient (PAI), technical grade of the active ingredient (TGAI), and manufacturing-use products (MPs) submitted (1987, 1988; MRIDs 40406503, 40406509, 40782602, and 40911503) by Ciba-Geigy have been reviewed by the Agency. These data satisfy the requirements of 40 CFR §158.190 (Guideline Reference Nos. 63-2 through 63-20) for the unregistered technical and the 87% FI (EPA Reg No. 100-524). These data do not satisfy the requirements of 40 CFR §158.190 (Guideline Reference No. 63-17) pertaining to the storage stability of the 23.8% FI (EPA Reg. No 100-652) because the storage stability testing must be done in the commercial packaging, and include analysis of diazinon and its sulfur derivatives at the beginning of the test period and after 1 year of storage under warehouse conditions. Additional data are required.

Since the Prentiss FIs are formulated from an EPA registered product, the physical and chemical characteristics of the diazinon purified active ingredient (PAI) and technical grade of the active ingredient (TGAI) will be addressed by the registrant of the technical source product. The physical and chemical characteristics of the Prentiss manufacturing-use products (MPs) are summarized in Table 2. The submitted data do not fully satisfy the requirements of 40 CFR §158.190 for any of the Prentiss FIs. In addition, the methods by which any of the data were obtained were not reported. The submitted data (1988; MRIDs 40488601-40488604, 40488606, 40783601, 40783701, 40783801, 40783901, and 40784001) do not satisfy the requirements of 40 CFR §158.190 (Guideline Reference Nos. 63-7, 63-17, and 63-20) because raw data, including testing conditions, must be submitted to support the statements of storage stability and corrosiveness for the 80% FI (EPA Reg No. 655-473), 50% FI (EPA Reg. No. 655-463), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI (EPA Reg. No. 655-401), and specific gravity is required on the finished product (the registrant has submitted specific gravity values for the starting materials of the liquid products: 80% FI (EPA Reg No. 655-473), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI (EPA Reg. No. 655-401)). Additional data are required.

Since the Fairfield American FIs are formulated from an EPA registered product, the physical and chemical characteristics of the diazinon purified active ingredient (PAI) and technical grade of the active ingredient (TGAI) will be addressed by the registrant of the technical source product. The physical and chemical characteristics of the Fairfield America manufacturing-use products (MPs) are summarized in Table 2. The submitted data do not fully satisfy the requirements of 40 CFR §158.190 (Guideline Reference Nos. 63-2 through 63-20) for any of the Fairfield American FIS. In addition, specific method citations for obtaining the data were not reported. The submitted data (1987; MRIDs 40449201, 40449301, 40449401, and 40449501) do not satisfy the requirements of 40 CFR §158.190 (Guideline Reference Nos. 63-2 and 63-20) for the 10.005% FI (EPA Reg. No. 4816-640), 5% FI (EPA Reg. No. 4816-245), 5% FI (EPA Reg. No. 4816-621), and 0.71% FI (EPA Reg. No. 4816-181) because the scale used for the color values and supporting data for corrosiveness were not provided. Additional information is required.

Makhteshim submitted data (1987; MRIDs 40423403, 40423503, and 41249902) which have been reviewed by the Agency and were found to partially satisfy the requirements of 40 CFR 158.190 (Guideline Reference Nos. 63-2 through 63-20). Data requirements remain outstanding for stability of the unregistered T, and storage stability and viscosity of the 92% and 87% FIs (EPA Reg. Nos. 11678-6 and 11678-20, respectively). The registrant has submitted storage stability data (1988; MRID 40833501) for the 87% FI. The product is stable for one year at ambient

temperatures when stored in glass bottles with plastic closures. The storage stability data appear to be adequate; however, the registrant must verify that glass bottles are representative of commercial storage containers. Additional data are required.

Nippon Kayaku has submitted data (1989, 1990; MRIDs 41334603, 41334606, and 41669901) pertaining to the physicochemical characteristics of the unregistered T and Nichimen America 87% FI (EPA Reg. No 33694-1) which are summarized in Table 2. These data satisfy the requirements of 40 CFR §158.190 (Guideline Reference No. 63-2 through 63-20) regarding the physical and chemical characteristics except for stability (TGAI) and explodability of the 87% FI. Trans Chemic had previously submitted data (1987; MRIDs 40404301 and 40404801) which were found adequate by the Agency (G. Makhijani; CBRS Nos. 4082 and 4088 dated 9/2/88) regarding physical and chemical characteristics of the unregistered T and 87% FI. Since the transferred product is manufactured by the same process and at the same location the earlier submitted explodability and storage stability data will apply to the Nichimen America 87% FI (EPA Reg. No. 33694-1). No additional data are required.

No data pertaining to the physicochemical properties have been submitted for the Ciba-Geigy 5% FI (EPA Reg. No. 100-714), Fairfield American 25% FI (EPA Reg. No. 4816-685), Southern Mill Creek 70.31%, 25%, and 12.5% FIs (EPA Reg. Nos. 6720-201, 6720-199, and 6720-197, respectively), and Drexel 87% T (EPA Reg. No. 19713-104); all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding for these products.

Table 2. Physical and chemical properties of the diazinon purified active ingredient (PAI), technical grade of the active ingredient (TGAI), and manufacturing-use products (MPs).

Guidelines Reference No., 40 CFR §158.190; Name of Property	Description [Method] (Product; EPA Reg. No.; MRID)
63-2. Color	**Light amber** (80% MP; 655-473; 40488602) (48.7% MP; 655-500; 40488603) (25% MP; 655-595; 40488604) (10% MP; 655-401; 40488601) **Tan** (50% MP; 655-463; 40488606) **7-8** (10.005% MP; 4816-640; 40449501) (5% MP; 4816-245; 40449301) (5% MP; 4816-621; 40449201) **2.0** (0.71% MP; 4816-181; 40449401) **Light amber** [Gardner Index 4-9] (87% MP; 33694-1; 41334606) (Nippon TGAI; 41334603)
63-3. Physical state	**Liquid** (80% MP; 655-473; 40488602) (48.7% MP; 655-500; 40488603) (25% MP; 655-595; MRID 40488604) (10% MP; 655-401; 40488601) (10.005% MP; 4816-640; 40449501) (5% MP; 4816-245; 40449301) (5% MP; 4816-621; 40449201) (0.71% MP; 4816-181; 40449401) (87% MP; 33694-1; 41334606) (Nippon TGAI; 41334603) **Powder** (50% MP; 655-463; 40488606)
63-4. Odor	**Mild organophosphate** (80% MP; 655-473; 40488602) (48.7% MP; 655-500; 40488603) (25% MP; 655-595; 40488604) (10% MP; 655-401; 40488601) **Sight Sulfur-Like** (50% MP; 655-463; 40488606)

(Continued.)

Table 2. (Continued.)

Guidelines Reference No., 40 CFR §158.190; Name of Property		Description [Method] (Product; EPA Reg. No.; MRID)
63-2.	Odor (cont.)	**Mild (Diazinon)** (10.005% MP; 4816-640; 40449501) (5% MP; 4816-245; 40449301) (0.71% MP; 4816-181; 40449401) **Moderate/Sweet** (5% MP; 4816-621; 40449201) **faint ester-like at 20 C** (87% MP; 33694-1; 41334606) (Nippon TGAI; 41334603)
63-5.	Melting point	**N/A since diazinon is a liquid at room temperature** (Nippon TGAI; 41334603)
63-6.	Boiling point	**83-84 C/0.002 mmHg** [OECD Guidelines A80/4] (Nippon TGAI; 41334603)
63-7.	Density, Bulk Density or Specific Gravity	**Not supplied** (80% MP; 655-473; 40488602) (48.7% MP; 655-500; 40488603) (25% MP; 655-595; 40488604) (10% MP; 655-401; 40488601) **18 lb/ft^3** (50% MP; 655-463; 40488606) **0.822 at 20 C** (10.005% MP; 4816-640; 40449501) **1.059 at 20 C** (5% MP; 4816-245; 40449301) **1.059 at 20 C** (5% MP; 4816-621; 40449201) **0.768 at 20 C** (0.71% MP; 4816-181; 40449401) **≈ 1.1 at 20 C (specific gravity)** [OECD Guideline A80/11] (87% MP; 33694-1; 41334606) (Nippon TGAI; 41334603)

Table 2. (Continued.)

Guidelines Reference No., 40 CFR §158.190; Name of Property	Description [Method] (Product; EPA Reg. No.; MRID)[a]
63-8. Solubility	**Solvent** / **Solubility at 20 C** **water** 48 mg/kg **ether** >500 g/100 mL **ethanol** >500 g/100 mL **cyclohexane** >500 g/100 mL **petroleum ether** >500 g/100 mL **benzene** >500 g/100 mL **xylene** >500 g/100 mL (TGAI) [OECD Guidelines A80/6] (Nippon TGAI; 41334603)
63-9. Vapor pressure	**2.8 x 10^{-4} mmHg at 25 C** [OECD Guidelines A80/5] (Nippon TGAI; 41334603)
63-10. Dissociation constant	**N/A since diazinon does not dissociate under normal conditions** (Nippon TGAI; 41334603)
63-11. Octanol/water partition coefficient	**log P = 3.42 at 25 C** [OECD Guidelines A80/8] (Nippon PAI; 41334603)
63-12. pH	**N/A; product cannot be diluted or dispersed with water** (80% MP; 655-473; 40488602) (48.7% MP; 655-500; 40488603) (25% MP; 655-595; 40488604) (10% MP; 655-401; 40488601) **7.7** (50% MP; 655-463; 40488606) **Neutral (6-8)** (10.005% MP; 4816-640; 40449501) (5% MP; 4816-245; 40449301) (0.71% MP; 4816-181; 40449401) **7-9** (5% MP; 4816-621; 40449201) **≈ 6 at 20 C** [CIPAC MT 75-2] (87% MP; 33694-1; 41334606) (Nippon TGAI; 41334603)

(Continued.)

Table 2. (Continued.)

Guidelines Reference No., 40 CFR §158.190; Name of Property	Description [Method] (Product; EPA Reg. No.; MRID)
63-13. Stability	**stable at 70 C in a sealed ampoule for 48 hours; a rapid decomposition occurs at about 170 C in differential thermal analysis under a high atmospheric pressure (30 kg/cm^3); stable in alkaline conditions; unstable in acidic conditions** (Nippon TGAI; 41334603)
63-14. Oxidizing or reducing action	**No oxidizing or reducing ingredients are present** (80% MP; 655-473; 40488602) (50% MP; 655-463; 40488606) (48.7% MP; 655-500; 40488603) (25% MP; 655-595; 40488604) (10% MP; 655-401; 40488601) (10.005% MP; 4816-640; 40449501) (5% MP; 4816-245; 40449301) (5% MP; 4816-621; 40449201) (0.71% MP; 4816-181; 40449401) **no special reactivity in relation to oxidation or reduction** (87% MP; 33694-1; 41334606)
63-15. Flammability	**Flash point** **158 F** (80% MP; 655-473; 40488602) **N/A; MP is a solid** (50% MP; 655-463; 40488606) **105 F** (48.7% MP; 655-500; 40488603) **164 F** (25% MP; 655-595; 40488604) **170 F** (10% MP; 655-401; 40488601) **117 F** (10.005% MP; 4816-640; 40449501) **145 F** (5% MP; 4816-245; 40449301) **>200 F** (5% MP; 4816-621; 40449201) **172 F** (0.71% MP; 4816-181; 40449401) **flash point = >170 C** by open cup [CIPAC MT 12] (87% MP; 33694-1; 41334606)

(Continued.)

Table 2. (Continued.)

Guidelines Reference No., 40 CFR §158.190; Name of Property	Description [Method] (Product; EPA Reg. No.; MRID)
63-16. Explodability	**Non-explosive** (80% MP; 655-473; 40488602) (50% MP; 655-463; 40488606) (48.7% MP; 655-500; 40488603) (25% MP; 655-595; 40488604) (10% MP; 655-401; 40488601) **Product will not explode under normal conditions** (10.005% MP; 4816-640; 40449501) (5% MP; 4816-245; 40449301) (5% MP; 4816-621; 40449201) (0.71% MP; 4816-181; 40449401) **data previously submitted** (87% MP; 33694-1; 40404801)
63-17. Storage stability	**Stable for greater than one year** (80% MP; 655-473; 40488602, 40783801) (50% MP; 655-463; 40488606, 40783901) (48.7% MP; 655-500; 40488603, 40783701) (25% MP; 655-595; 40488604, 40783601) (10% MP; 655-401; 40488601, 40784001) **Chemically and physically stable for 30 days at elevated temperatures (50 C) and for one year at ambient temperatures in amber glass containers** [HPLC Method FAC-13] (10.005% MP; 4816-640; 41757104) **Chemically and physically stable for 30 days at elevated temperatures (50 C) and for one year at ambient temperatures in tinplate steel containers** [GC Method FAC-7B] (5% MP; 4816-245; 41757102) **Some loss of activity after 30 days at elevated temperatures (50 C), minor loss of activity after one year at ambient temperatures in amber glass containers** [GC Method FAC 7B] (5% MP; 4816-621; 41757103)

Table 2. (Continued.)

Guidelines Reference No., 40 CFR §158.190; Name of Property	Description [Method] (Product; EPA Reg. No.; MRID)
63-17. Storage stability (cont.)	**Stable for 30 days at elevated temperatures (50 C), minor loss of active ingredient after one-year at ambient temperatures in amber glass containers** [HPLC Method FAC-13] (0.71% MP; 4816-181; 41757101) **data previously submitted** (87% MP; 33694-1; 40404801)
63-18. Viscosity	**11.8 cps** [Brinkman Viscometer] (80% MP; 655-473; 40488602) **N/A; MP is a solid** (50% MP; 655-463; 40488606) **4.6 cps** [Brinkman Viscometer] (48.7% MP; 655-500; 40488603) **5.5 cps** [Brinkman Viscometer] (25% MP; 655-595; 40488604) **3.9 cps** [Brinkman Viscometer] (10% MP; 655-401; 40488601) **2.2 CST at 20 C** (10.005% MP; 4816-640; 40449501) **3.1 CST at 20 C** (5% MP; 4816-245; 40449301) **117.3 CST at 20 C** (5% MP; 4816-621; 40449201) **2.4 CST at 20 C** (0.71% MP; 4816-181; 40449401) **12.5 cps at 20 C** [CIPAC MT 22] (87% MP; 33694-1; 41334606)
63-19. Miscibility	**N/A; Product is not emulsifiable** (80% MP; 655-473; 40488602) (48.7% MP; 655-500; 40488603) (25% MP; 655-595; 40488604) (10% MP; 655-401; 40488601) **N/A; MP is a solid** (50% MP; 655-463; 40488606) **Partially miscible with water, miscible with most organic solvents** (10.005% MP; 4816-640; 40449501)

(Continued.)

Table 2. (Continued.)

Guidelines Reference No., 40 CFR §158.190; Name of Property	Description [Method] (Product; EPA Reg. No.; MRID)[a]
63-19. Miscibility (cont.)	**Completely miscible water and most solvents** (5% MP; 4816-621; 40449201) **N/A - Not an emulsifiable liquid** (5% MP; 4816-245; 40449301) (0.71% MP; 4816-181; 41757101) **miscible with petroleum solvents** (MP) (87% MP; 33694-1; 41334606)
63-20. Corrosiveness	**Not corrosive in the recommended packaging** (80% MP; 655-473; 40488602) (50% MP; 655-463; 40488606) (48.7% MP; 655-500; 40488603) (25% MP; 655-595; 40488604) (10% MP; 655-401; 40488601) **Non-corrosive to lined steel** (10.005% MP; 4816-640; 40449501) (5% MP; 4816-245; 40449301) (5% MP; 4816-621; 40449201) (0.71% MP; 4816-181; 40449401) **following an accelerated corrosion test at 50 C to iron test piece and storage for 0-6 months, no change was observed; following storage corrosion test using the commercial container (55 US-gallon steel drum) at ≈ 20 C for two years, no corrosion was observed** (87% MP; 33694-1; 41334606)

[a] PAI = purified active ingredient. TGAI = technical grade of the active ingredient. MP = manufacturing-use product. Hyphenated numbers represent EPA Registration Numbers. Eight digit numbers are MRID documents from the Pesticide Document Management System (PDMS).

MASTER RECORD IDENTIFICATION NUMBERS (MRIDs)

MRID documents containing data which have been reviewed by the Agency are designated in shaded blocks in the following bibliographic listing of Product Chemistry Citations (used). A summary of the subject memoranda and their associated MRID documents is presented below.

AGENCY MEMORANDA

CBRS Nos.	4082 and 4088
Subject:	Diazinon - EPA Registration No. 9618-23 - Trans Chemic Industries, Inc. Response to the Product Chemistry Chapter - Data Call-In Notice dated May 1, 1987
From:	G. Makhijani
To:	G. LaRocca
Dated:	9/2/88
MRIDs:	40404301 and 40404801

CBRS Nos.	4083 4084 4085
Subject:	Diazinon - EPA Registration Nos. 100-577 and 100-524 - Ciba-Geigy's Response to the Product Chemistry Chapter - Data Call-In Notice dated May 1, 1987
From:	G. Makhijani
To:	G. LaRocca
Dated:	8/25/88
MRIDs:	40406501 - 40406509

CBRS Nos.	4086 and 4087
Subject:	Diazinon - EPA Registration Nos. 11678-6 and 11678-20 - Nichimen America Agan (American), Inc. Response to the Products Chapter, Data Call-In Notice Dated May 1, 1987
From:	G. Makhijani
To:	G. LaRocca
Dated:	9/7/88
MRIDs:	40423401 40423402 40423403 40423501 40423502 40423503

CBRS Nos.	4325 4326
Subject:	EPA Registration Nos. 100-577 and 100-524 - Ciba-Geigy's Response to the Product Chemistry Chapter-Data Call-In Notice dates May 1, 1987
From:	G. Makhijani
To:	G. LaRocca
Dated:	10/3/88
MRIDs:	40782602

CBRS Nos. 4610 4611 4612
Subject: EPA Registration Nos. 100-577 and 100-524 - Ciba-Geigy's Response to the Product Chemistry Chapter Data Call-In Notice dated May 1, 1987
From: G. Makhijani
To: G. LaRocca
Dated: 12/16/88
MRIDs: None Assigned

CBRS Nos. 4785
Subject: Diazinon MG-2 Manufacturing-Use Product - EPA Registration No. 100-652 - Ciba-Geigy's Response to the Product Chemistry Chapter Data Call-In Notice Dated May 1, 1987
From: G. Makhijani
To: G. LaRocca
Dated: 2/4/89
MRIDs: 40911501 - 40911503

CBRS Nos: 5453
Subject: Diazinon MG-2. Manufacturing-Use Product - EPA Registration No. 100-652 - Ciba-Geigy's Response to the Product Chemistry Chapter Data Call-In Notice Dated May 1, 1987
From: G. Makhijani
To: G. LaRocca
Dated: 7/27/89
MRID: 41115701

CBRS No. 6008
Subject: Diazinon: EPA Registration Nos. 11678-6 and 11678-20 - Nichimen America Agan (American), Inc. Response to the Product Chemistry Chapter, Data Call-In Notice dated May 1, 1987
From: G. Makhijani
To: G. LaRocca
Dated: 12/12/89
MRIDs: 41249901 41249902 41278901

Product Chemistry Citations (used)

41115701 Lall, I. (1989) Diazinon MG-2: Product Chemistry of Diazinon MG-2: Study No. PC-89-006. Unpublished study prepared by Ciba-Geigy Corp. 74 p.

40423401 Makhteshim Chemical Works Ltd. (1987) Diazol (Diazinon)--Product Chemistry Data: Laboratory Project ID: R-4771. Unpublished compilation. 25 p.

40423402 Makhteshim Chemical Works Ltd. (1987) Diazol (Diazinon)--Product Chemistry Data: Laboratory Project ID: R-4771. Unpublished compilation. 21 p.

40423403 Makhteshim Chemical Works Ltd. (1987) Diazol (Diazinon)--Product Chemistry Data: Laboratory Project ID: R-4771. Unpublished compilation. 19 p.

40423501 Makhteshim Chemical Works Ltd. (1987) Diazol (Diazinon)--Product Chemistry Data: Laboratory Project ID: R-4771. Unpublished compilation. 65 p.

40423502 Makhteshim Chemical Works Ltd. (1987) Diazol (Diazinon)--Product Chemistry Data: Laboratory Project ID: R-4771. Unpublished compilation. 106 p.

40423503 Makhteshim Chemical Works Ltd. (1987) Diazol (Diazinon)--Product Chemistry Data: Laboratory Project ID: R-4771. Unpublished compilation. 75 p.

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40404801 Noda, S.; Hasegawa, K. (1987) Product Chemistry: Dianon: Laboratory Project ID NK/Pr-Ch-DZ/87-2. Unpublished study prepared by Nippon Kayaku Co., Ltd. (Japan). 135 p.

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40406502 Brown, R.; Lail, L. (1987) Technical Diazinon: Product Chemistry of Unstabilized Diazinon: Study No. PC-87-028. Unpublished compilation prepared by Ciba-Geigy Corp. 78 p.

40406503 Brown, R.; Lail, L. (1987) Technical Diazinon: Product Chemistry of Unstabilized Diazinon: Study No. PC-87-028. Unpublished compilation prepared by Ciba-Geigy Corp. 144 p.

40406507 Brown, R.; Lail, L. (1987) Diazinon MG-8: Product Chemistry of Diazinon MG-8: Study No. PC-87-030. Unpublished compilation prepared by Ciba-Geigy Corp. 147 p.

40406508 Brown, R.; Lail, L. (1987) Diazinon MG-8: Product Chemistry of Diazinon MG-8: Study No. PC-87-030. Unpublished compilation prepared by Ciba-Geigy Corp. 87 p.

40406509 Brown, R.; Lail, L. (1987) Diazinon MG-8: Product Chemistry of Diazinon MG-8: Study No. PC-87-030. Unpublished compilation prepared by Ciba-Geigy Corp. 10 p.

40449201 Brill, J. (1987) Pyrenone Diazinon Aqueous Base... : Product Chemistry. Unpublished compilation. 35 p.

40449301 Briil, J. (1987) Pyrenone Diazinon Residual Concentrate Insecticide... : Product Chemistry. Unpublished compilation. 32 p.

40449401 Brill, J. (1987) Pyrenone Diazinon DOB... : Product Chemistry. Unpublished compilation. 21 p.

40449501 Brill, J. (1987) Pyrenone Diazinon W. B. ... : Product Chemistry. Unpublished compilation. 39 p.

40488601 Slocumb, A. (1988) Product Specific Data Requirements for Prentox Intermediate DPB 1000. Unpublished compilation prepared by Prentiss Drug & Chemical Co., Inc. 22 p.

40488602 Slocumb, A. (1988) Product Specific Data Requirements for Prentox Diazinon 80 percent Oil Concentrate. Unpublished compilation prepared by Prentiss Drug & Chemical Co., Inc. 22 p.

40488603 Slocumb, A. (1988) Product Specific Data Requirements for Prentox Diazinon 4lb. Oil Concentrate. Unpublished compilation prepared by Prentiss Drug & Chemical Co., Inc. 22 p.

40488604 Slocumb, A. (1988) Product Specific Data Requirements for Prentox Intermediate DPB 5000. Unpublished compilation prepared by Prentiss Drug & Chemical Co., Inc. 22 p.

40488606 Slocumb, A. (1988) Product Specific Data Requirements for Prentox Diazinon 50 percent Dust. Unpublished compilation prepared by Prentiss Drug & Chemical Co., Inc. 22 p.

40782602 Lail, L. (1988) Diazinon MG8: Product Chemistry: Study No. PC-88-015. Unpublished study prepared by Ciba-Geigy Corp. 5 p.

40783601 Slocumb, A. (1988) Storage Stability for Prentox Intermediate DPB-5000. Unpublished study prepared by Prentiss Drug & Chemical Co., Inc. 3 p.

40783701 Slocumb, A. (1988) Storage Stability for Prentox Diazinon 4 lb. Oil Concentration. Unpublished study prepared by Prentiss Drug & Chemical Co., Inc. 3 p.

40783801 Slocumb, A. (1988) Storage Stability for Prentox Diazinon 80% Oil Concentrate. Unpublished study prepared by Prentiss Drug & Chemical Co., Inc. 3 p.

40783901 Slocumb, A. (1988) Storage Stability for Prentox Diazinon 50% Dust. Unpublished study prepared by Prentiss Drug & Chemical Co., Inc. 3 p.

40784001 Slocumb, A. (1988) Storage Stability for Prentox Intermediate DPB-1000. Unpublished study prepared by Prentiss Drug & Chemical Co., Inc. 3 p.

40833501 Makhteshim Chemical Works Ltd. (1988) Diazol (Diazinon)--Product Chemistry Data: Laboratory Project ID R-4771. Unpublished study. 4 p.

40911501 Lail, L.; Garner, S. (1988) Product Chemistry of Diazinon MG-2: Study No. PC-88-019. Unpublished compilation prepared by Ciba-Geigy Corp. 181 p.

40911502 Lail, L.; Garner, S. (1988) Product Chemistry of Diazinon MG-2: Study No. PC-88-019. Unpublished compilation prepared by Ciba-Geigy Corp. 87 p.

40911503 Garner, S.; Lail, L. (1988) Product Chemistry of Diazinon MG-2: Study No. PC-88-019. Unpublished study prepared by Ciba-Geigy Corp. 10 p.

41249901 Makhteshim Chemical Works Ltd. (1989) Diazol (Diazinon): Unstabilized Product Chemistry Data: Project ID R-5394. Unpublished study. 109 p.

41249902 Makhteshim Chemical Works Ltd. (1989) Diazol (Diazinon): Unstabilized Product Chemistry Data: Project ID R-5394. Unpublished study. 71 p.

41278901 Makhteshim Chemical Works Ltd. (1989) Diazol (Diazinon) Unstabilized Product Chemistry Data: Lab Project Number: R/5394. Unpublished study. 64 p.

41359501 Makhteshim Chemical Works Ltd. (1989) Diazol (Diazinon) Unstabilized Supplemental Product Chemistry Data: Lab Project Number: R-5394. 70 p.

41334601 Noda, S. (1989) Technical Grade Diazinon... : Product Chemistry:Product Identity and Composition: Lab Project Number: NK/PC/DZ/89/1A. Unpublished study prepared by Nippon Kayaku Co., Ltd. 38 p.

41334602 Noda, S. (1989) Technical Grade Diazinon... : Product Chemistry:Analysis and Certification of Product Ingredients: Lab

Project Number: NK/PC/DZ/89/1B. Unpublished study prepared by Nippon Kayaku Co., Ltd. 36 p.

41334603 Noda, S.; Tojinbara, I. (1989) Technical Grade Diazinon... : Product Chemistry: Physical and Chemical Characteristics: Lab Project Number: NK/PC/DZ/89/1C. Unpublished study prepared by Nippon Kayaku Co., Ltd. 6 p.

41334604 Noda S.; Tojinbara, I. (1989) Dianon (Diazinon MUP)... : Product Chemistry: Product Identity and Composition: Lab Project Number: NK/PC/DZ/89/2A. Unpublished study prepared by Nippon Kayaku Co., Ltd. 41 p.

41334605 Noda, S.; Tojinbara, I. (1989) Dianon (Diazinon MUP)... : Product Chemistry: Analysis and Certification of Product Ingredients:Lab Project Number: NK/PC/DZ/89/2B. Unpublished study prepared by Nippon Kayaku Co., Ltd. 41 p.

41334606 Noda, S.; Tojinbara, I. (1989) Dianon (Diazinon MUP)... : Product Chemistry: Physical and Chemical Characteristics: Lab Project Number: NK/PC/DZ/89/2C. Unpublished study prepared by Nippon Kayaku Co., Ltd. 11 p.

41669901 Noda, S. (1990) Dianon (Diazinon MUP) 0,0-Diethyl-0-(2-isopropyl-6-methyl-4-pyrmidinyl)phosphorothioate: Product Chemistry: Lab Project Number: NK/PC-DZ/8902C-1. Unpublished study prepared by Nippon Kayaku, Ltd. 9 p.

41757101 Fairfield American Corp. (1991) Pyrenone Diazinon DOB: Storage Stability Testing. Unpublished study. 6 p.

41757102 Fairfield American Corp. (1991) Pyrenone Diazinon Residual Concentrate Insecticide: Storage Stability Testing. Unpublished study. 6 p.

41757103 Fairfield American Corp. (1991) Pyrenone Diazinon Aqueous Base: Storage Stability Testing. Unpublished study. 6 p.

41757104 Fairfield American Corp. (1991) Pyrenone Diazinon W. B. : Storage Stability Testing. Unpublished study. 6 p.

<u>Product Chemistry Citations (not used)</u>
(The following MRIDs pertain to end-use products or canceled products)

<u>End-use Products</u>

40354601	40355101	40361201	40368601	40394401	40413501
40434701	40455901	40457801	40462301	40533201	40599201
40612101	40612201	40612202	40625001	40667801	40667901
40734601	40738201	40768701	40769301	40790101	40790102
40790103	40797601	40798801	40819001	40853401	40941501
40941502	40941503	41006401	41074401	41120301	41139101
41139901	41139902	41139903	41139904	41139905	41139906
41139907	41139908	41155101	41173901	41184801	41211001
41269901	41270001	41270101	41270201	41295801	41318901
41325601	41328201	41328202	41328203	41330201	41330401
41330501	41330601	41330701	41330801	41330901	41331001
41331101	41331201	41331301	41331401	41331501	41332401
41332402	41332403	41332404	41332405	41332406	41332407
41332408	41332409	41332410	41332411	41332412	41332413
41332414	41332415	41332416	41332417	41332418	41333001
41334401	41334501	41334701	41335501	41336520	41337801
41337802	41341301	41355701	41355801	41355901	41356001
41356101	41358401	41358501	41358601	41358701	41362901
41362902	41362903	41362904	41362905	41363001	41363002
41363003	41363004	41363005	41363101	41363102	41363103
41363104	41363105	41364601	41365601	41388901	41390301
41401001	41401101	41401201	41401301	41401401	41401501
41401601	41401701	41401801	41401901	41402001	41405801
41407204	41407212	41407227	41415801	41418201	41421101
41426101	41426102	41426103	41426104	41426105	41430601
41469801	41496101	41497301	41501901	41502001	41502101
41502201	41511101	41511102	41511103	41514201	41523501
41525101	41535401	41537401	41538805	41545201	41545301
41545901	41546301	41548101	41549601	41564301	41625201
41663501	41665701	41665901	41668801	41733001	41805701
41827501	41827601				

Canceled Products

40406504	40406505	40406506	40488605	40782601	40783501
41343601	41495701				

TABLE A. GENERIC DATA REQUIREMENTS FOR THE DIAZINON (CIBA-GEIGY) TECHNICAL GRADE OF THE ACTIVE INGREDIENT.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-2. Starting Materials and Manufacture Process	TGAI	Yes	40406501	No
61-3. Formation of Impurities	TGAI	Yes	40406501	No
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	TGAI	Yes	40406502	No
Physical and Chemical Characteristics[4]				
63-2. Color	TGAI	Yes	40406503	No
63-3. Physical State	TGAI	Yes	40406503	No
63-4. Odor	TGAI	Yes	40406503	No
63-5. Melting Point	TGAI	N/A	N/A	No[5]
63-6. Boiling Point	TGAI	Yes	40406503	No
63-7. Density, Bulk Density, or Specific Gravity	TGAI	Yes	40406503	No
63-8. Solubility	TGAI or PAI	Yes	40406503	No
63-9. Vapor Pressure	TGAI or PAI	Yes	40406503	No
63-10. Dissociation Constant	TGAI or PAI	Yes	40406503	No
63-11. Octanol/Water Partitioning Coefficient	PAI	Yes	40406503	No
63-12. pH	TGAI	Yes	40406503	No
63-13. Stability	TGAI	Yes	40406503	No
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the Ciba-Geigy unregistered technical.

TABLE A. (Continued).

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. As required by 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-13, data must be submitted on physicochemical characteristics (color, physical state, odor, melting point, boiling point, specific gravity, solubility, vapor pressure, dissociation constant, octanol/water partition coefficient, pH, and stability).

5. Data on melting point are not required since the TGAI is a liquid at room temperature.

TABLE B. (Continued).

7. As required in 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-20, data must be submitted on physicochemical characteristics of each manufacturing-use product (color, physical state, odor, specific gravity, pH, oxidizing or reducing action, flammability, explodability, storage stability, viscosity, miscibility, and corrosion characteristics).

8. Data on pH are required if the test substance is dispersible in water.

9. Data are required on oxidizing/reducing potential if the product contains an oxidizing or reducing agent.

10. Data are required on flammability if the product contains combustible liquids.

11. Data are required if the product is potentially explosive.

12. Ciba-Geigy has not responded for the 5% FI; all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding. Ciba-Geigy has responded for the 28.3% FI; however the storage stability testing must be done in the commercial packaging, and include analysis of diazinon and its sulfur derivatives at the beginning of the test period and after 1 year of storage under warehouse conditions. Ciba-Geigy has adequately responded for the 87% FI.

13. Data on viscosity are required if the product is a liquid.

14. Data on miscibility are required if the product is an emulsifiable liquid and is to be diluted with petroleum solvents.

TABLE A. GENERIC DATA REQUIREMENTS FOR THE DIAZINON (PRENTISS) TECHNICAL GRADE OF THE ACTIVE INGREDIENT.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-2. Starting Materials and Manufacture Process	TGAI	Yes	40406501	No
61-3. Formation of Impurities	TGAI	Yes	40406501	No
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	TGAI	Yes	40406502	No
Physical and Chemical Characteristics[4]				
63-2. Color	TGAI	Yes	40406503	No
63-3. Physical State	TGAI	Yes	40406503	No
63-4. Odor	TGAI	Yes	40406503	No
63-5. Melting Point	TGAI	N/A	N/A	No[5]
63-6. Boiling Point	TGAI	Yes	40406503	No
63-7. Density, Bulk Density, or Specific Gravity	TGAI	Yes	40406503	No
63-8. Solubility	TGAI or PAI	Yes	40406503	No
63-9. Vapor Pressure	TGAI or PAI	Yes	40406503	No
63-10. Dissociation Constant	TGAI or PAI	Yes	40406503	No
63-11. Octanol/Water Partitioning Coefficient	PAI	Yes	40406503	No
63-12. pH	TGAI	Yes	40406503	No
63-13. Stability	TGAI	Yes	40406503	No
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the TGAI of the Prentiss 80% FI (EPA Reg. No. 655-473), 50% FI (EPA Reg. No. 655-463), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI (EPA Reg. No. 655-401). Additional data requirements are listed in the following Table B, "Product Specific Data Requirements for Diazinon Manufacturing-Use Products".

TABLE A. (Continued).

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. As required by 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-13, data must be submitted on physicochemical characteristics (color, physical state, odor, melting point, boiling point, specific gravity, solubility, vapor pressure, dissociation constant, octanol/water partition coefficient, pH, and stability). There are additional data requirements listed in Table B pertaining to physicochemical characteristics of those technical products which are also manufacturing use products.

5. Data on melting point are not required since the TGAI is a liquid at room temperature.

TABLE B. PRODUCT SPECIFIC DATA REQUIREMENTS FOR DIAZINON (PRENTISS) MANUFACTURING-USE PRODUCTS.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-1. Product Composition	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[4]
61-2. Starting Materials & Manufacture/Formulation Process	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[5]
61-3. Formation of Impurities	MP	Yes	40488601 40488602 40488603 40488604 40488606	No
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[6]
62-2. Certified Limits	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[7]
62-3. Enforcement Analytical Methods	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[8]
Physical and Chemical Characteristics[9]				
63-2. Color	MP	Yes	40488601 40488602 40488603 40488604 40488606	No

(Continued, footnotes follow)

TABLE B. (Continued).

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[7]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
63-3. Physical State	MP	Yes	40488601 40488602 40488603 40488604 40488606	No
63-4. Odor	MP	Yes	40488601 40488602 40488603 40488604 40488606	No
63-7. Density, Bulk Density, or Specific Gravity	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[10]
63-12. pH	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[11]
62-14. Oxidizing or Reducing Action	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[12]
62-15. Flammability	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[13]
63-16. Explodability	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[12]
63-17. Storage Stability	MP	Partially	40488601 40488602 40488603 40488604 40488606 40783601 40783701 40783801 40783901 40784001	Yes[12,14]

(Continued, footnotes follow)

TABLE B. (Continued).

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
63-18. Viscosity	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[13]
63-19. Miscibility	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[15]
63-20. Corrosion Characteristics	MP	Partially	40488601 40488602 40488603 40488604 40488606	Yes[12,14]
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the Prentiss 80% FI (EPA Reg. No. 655-473), 50% FI (EPA Reg. No. 655-463), 48.7% FI (EPA Reg. No. 655-500), 25% FI (EPA Reg. No. 655-595), and 10% FI (EPA Reg. No. 655-401). Additional data requirements are listed in the preceding Table A, "Generic Data Requirements for the Diazinon Technical Grade of the Active Ingredient".

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. Prentiss has responded to data requirements for the 80%, 50%, 48.7%, 25%, and 10% FIs; however, the nominal concentrations, purpose, and chemical names must be submitted for all active and inert ingredients. In addition, the EPA registration numbers must be submitted for the pyrethrum and piperonyl butoxide technicals listed for the 25% and 10% FIs.

5. Prentiss has responded to data requirements for the 80%, 50%, 48.7%, 25%, and 10% FIs; however, the following are required: (i) EPA Reg. Nos. for the pyrenthrum extract and piperonyl butoxide technicals in

TABLE B. (Continued).

the 25% and 10% FIs; (ii) the name and address of the suppliers and technical specifications of the pyrethrum extract and piperonyl butoxide technicals in the 25% and 10% FIs, and of the inert ingredients in all of the FIs; and (iii) a description of the equipment used for the formulation of the 50% FI.

6. Prentiss has responded to the data requirements for the 80%, 50%, 48.7%, 25% and 10% FIs; however, data pertaining to the identification and quantification of tetraethyl pyrophosphate (TEPP) and their sulfur derivatives of TEPP must be submitted.

7. Prentiss has responded to data requirements for the 80%, 50%, 48.7%, 25%, and 10% FIs; however, the proposed certified limits must be based on the nominal concentration (label claim) of the technical source product(s). Information must be submitted on EPA Form 8570-4 (Rev. 2-85).

8. Prentiss has responded to data requirements for the 80%, 50%, 48.7%, 25%, and 10% FIs; however, a description and validation data of the analytical methods used to determine the active ingredients must be provided.

9. As required in 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-20, data must be submitted on physicochemical characteristics of each manufacturing-use product (color, physical state, odor, specific gravity, pH, oxidizing or reducing action, flammability, explodability, storage stability, viscosity, miscibility, and corrosion characteristics). Additional data requirements regarding physicochemical properties of manufacturing-use products which contain only the technical grade of the active ingredient are listed in Table A, "Generic Data Requirements for the Diazinon Technical Grade of the Active Ingredient."

10. Prentiss has responded to data requirements for the 80%, 50%, 48.7%, 25%, and 10% FIs; however the specific gravity of the final product is required for the 80%, 48.7%, 25%, and 10% FIs and the registrant must submit the methods by which the data of all the FIs were obtained.

11. Prentiss has responded to data requirements for the 50% FI; however the registrant must submit the methods and conditions by which the data were obtained. Data pertaining to pH are not required for the liquid FIs, 80%, 48.7%, 25%, and 10% FIs because they are not dispersible in water.

12. Prentiss has responded to data requirements for the 80%, 50%, 48.7%, 25%, and 10% FIs; however, the registrant must submit the methods by which the data were obtained.

TABLE B. (Continued).

13. Prentiss has responded to the data requirements for the 80%, 48.7%, 25%, and 10% FIs; however, the registrant must submit the methods by which the data were obtained. Data are not required for the 50% FI because the product is a solid at room temperature.

14. Prentiss has responded to data requirements for the 80%, 50%, 48.7%, 25%, and 10% FIs; however the raw data, including testing conditions, must be submitted to support the statements submitted by the registrant.

15. Data are not required pertaining to the miscibility of the 80%, 48.7%, 25%, and 10% FIs as they are not emulsifiable liquids. Data are not required for the 50% FI as the product is a solid at room temperature.

TABLE A. GENERIC DATA REQUIREMENTS FOR THE DIAZINON (FAIRFIELD AMERICAN) TECHNICAL GRADE OF THE ACTIVE INGREDIENT.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-2. Starting Materials and Manufacture Process	TGAI	Yes	40406501	No
61-3. Formation of Impurities	TGAI	Yes	40406501	No
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	TGAI	Yes	40406502	No
Physical and Chemical Characteristics[4]				
63-2. Color	TGAI	Yes	40406503	No
63-3. Physical State	TGAI	Yes	40406503	No
63-4. Odor	TGAI	Yes	40406503	No
63-5. Melting Point	TGAI	N/A	N/A	No[5]
63-6. Boiling Point	TGAI	Yes	40406503	No
63-7. Density, Bulk Density, or Specific Gravity	TGAI	Yes	40406503	No
63-8. Solubility	TGAI or PAI	Yes	40406503	No
63-9. Vapor Pressure	TGAI or PAI	Yes	40406503	No
63-10. Dissociation Constant	TGAI or PAI	Yes	40406503	No
63-11. Octanol/Water Partitioning Coefficient	PAI	Yes	40406503	No
63-12. pH	TGAI	Yes	40406503	No
63-13. Stability	TGAI	Yes	40406503	No
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the TGAI of the Fairfield American 10.005% FI (EPA Reg. No. 4816-640), 5% FI (4816-245), 5% FI (EPA Reg. No. 4816-621), and 0.71% FI (EPA Reg. No. 4816-181).

TABLE A. (Continued).

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. As required by 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-13, data must be submitted on physicochemical characteristics (color, physical state, odor, melting point, boiling point, specific gravity, solubility, vapor pressure, dissociation constant, octanol/water partition coefficient, pH, and stability).

5. Data on melting point are not required since the TGAI is a liquid at room temperature.

TABLE B. PRODUCT SPECIFIC DATA REQUIREMENTS FOR DIAZINON (FAIRFIELD AMERICAN) MANUFACTURING-USE PRODUCTS.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-1. Product Composition	MP	No	40449201 40449301 40449401 40449501	Yes[4]
61-2. Starting Materials & Manufacture/Formulation Process	MP	Partially	40449201 40449301 40449401 40449501	Yes[5]
61-3. Formation of Impurities	MP	Partially	40449201 40449301 40449401 40449501	Yes[6]
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	MP	No	N/A	Yes[7]
62-2. Certified Limits	MP	No	40449201 40449301 40449401 40449501	Yes[4]
62-3. Enforcement Analytical Methods	MP	Partially	40449201 40449301 40449401 40449501	Yes[8]
Physical and Chemical Characteristics[9]				
63-2. Color	MP	Partially	40449201 40449301 40449401 40449501	Yes[10]
63-3. Physical State	MP	Partially	40449201 40449301 40449401 40449501	Yes[6]
63-4. Odor	MP	Partially	40449201 40449301 40449401 40449501	Yes[6]

(Continued, footnotes follow)

TABLE B. (Continued).

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[7]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
63-7. Density, Bulk Density, or Specific Gravity	MP	Partially	40449201 40449301 40449401 40449501	Yes[11]
63-12. pH	MP	Partially	40449201 40449301 40449401 40449501	Yes[11]
62-14. Oxidizing or Reducing Action	MP	Partially	40449201 40449301 40449401 40449501	Yes[11]
62-15. Flammability	MP	Partially	40449201 40449301 40449401 40449501	Yes[11]
63-16. Explodability	MP	Partially	40449201 40449301 40449401 40449501	Yes[11]
63-17. Storage Stability	MP	Partially	41757101 41757102 41757103 41757104	Yes[6]
63-18. Viscosity	MP	Partially	40449201 40449301 40449401 40449501	Yes[11]
63-19. Miscibility	MP	Partially	40449201 40449301 40449401 40449501	Yes[11]
63-20. Corrosion Characteristics	MP	Partially	40449201 40449301 40449401 40449501	Yes[12]
Other Requirements:				

(Continued, footnotes follow)

TABLE B. (Continued).

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the Fairfield American 25% FI (EPA Reg. No. 4816-685), 10.005% FI (EPA Reg. No. 4816-640), 5% FI (4816-245), 5% FI (EPA Reg. No. 4816-621), and 0.71% FI (EPA Reg. No. 4816-181).

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. Fairfield American has not responded to the data requirements for the 25% FI and has indicated that Confidential Statements of Formula (CSFs) have been submitted to the Agency for the 10.005%, both 5%, and 0.71% FIs; however, these data are not available for review. All data requirementsspecified in the Diazinon Registration Standard-Update #1 pertaining to this topic remain outstanding.

5. Fairfield American has not responded to the data requirements for the 25% FI; all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding. The registrant has responded for the 10.005%, both 5%, and 0.71% FIs; however, information on the relative amounts of the materials used to produce the products, a description of the equipment used, and the duration of the formulation process must be provided.

6. Fairfied American has not responded to the data requirements for the 25% FI; all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding. The registrant has adequately responded for the 10.005%, both 5%, and 0.71% FIs.

7. Fairfied American has not responded to the data requirements for the 25%, 10.005%, both 5%, and 0.71% FIs; data pertaining to the identification and quatification of tetraethyl pyrophosphate (TEPP) and sulfur derivatives of TEPP in the FIs must be submitted.

TABLE B. (Continued).

8. Fairfield American has not responded to the data requirements for the 25% FI; all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding. The registrant has responded for the 10.005%, both 5%, and 0.71% FIs; however, additional validation data must be provided.

9. As required in 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-20, data must be submitted on physicochemical characteristics of each manufacturing-use product (color, physical state, odor, specific gravity, pH, oxidizing or reducing action, flammability, explodability, storage stability, viscosity, miscibility, and corrosion characteristics).

10. Fairfield American has not responded to the data requirements for the 25% FI; all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding. The registrant has responded for the 10.005%, both 5%, and 0.71% FIs; however, the scale used for determining the color values must be provided.

11. Fairfield American has not responded to the data requirements for the 25% FI; all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding. The registrant has responded for the 10.005%, both 5%, and 0.71% FIs; however, method citations must be provided.

12. Fairfield American has not responded to the data requirements for the 25% FI; all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding. The registrant has responded for the 10.005%, both 5%, and 0.71% FIs; however, supporting raw data must be provided.

TABLE A. GENERIC DATA REQUIREMENTS FOR THE DIAZINON (MAKHTESHIM) TECHNICAL GRADE OF THE ACTIVE INGREDIENT.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-2. Starting Materials and Manufacture Process	TGAI	Yes	40423501 41278901	No
61-3. Formation of Impurities	TGAI	Yes	40423501 41278901	No
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	TGAI	Yes	41249901 41359501	No
Physical and Chemical Characteristics[4]				
63-2. Color	TGAI	Yes	40423503	No
63-3. Physical State	TGAI	Yes	40423503	No
63-4. Odor	TGAI	Yes	40423503	No[5]
63-5. Melting Point	TGAI	N/A	N/A	No
63-6. Boiling Point	TGAI	Yes	40423503	No
63-7. Density, Bulk Density, or Specific Gravity	TGAI	Yes	40423503	No
63-8. Solubility	TGAI or PAI	Yes	40423503	No
63-9. Vapor Pressure	TGAI or PAI	Yes	40423503	No[6]
63-10. Dissociation Constant	TGAI or PAI	N/A	N/A	No
63-11. Octanol/Water Partitioning Coefficient	PAI	Yes	40423503	No
63-12. pH	TGAI	Yes	40406503	No
63-13. Stability	TGAI	No	N/A	Yes[7]
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the Makhteshim unregistered unstabilized technical.

TABLE A. (Continued).

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. As required by 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-13, data must be submitted on physicochemical characteristics (color, physical state, odor, melting point, boiling point, specific gravity, solubility, vapor pressure, dissociation constant, octanol/water partition coefficient, pH, and stability).

5. Data on melting point are not required since the TGAI is a liquid at room temperature.

6. Not applicable because the TGAI does not dissociate under normal conditions.

7. Makhteshim has not responded to the data requirements for the unregistered T; all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding.

TABLE B. PRODUCT SPECIFIC DATA REQUIREMENTS FOR DIAZINON (MAKHTESHIM) MANUFACTURING-USE PRODUCTS.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-1. Product Composition	MP	Yes	40423401 40423501	No
61-2. Starting Materials & Manufacture/Formulation Process	MP	Yes	40423401 40423501	No
61-3. Formation of Impurities	MP	Yes	40423401 40423501	No
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	MP	Partially	40423402 40423502	Yes[4]
62-2. Certified Limits	MP	Partially	40423402 40423502	Yes[5]
62-3. Enforcement Analytical Methods	MP	Partially	40423402 40423502 41244901	Yes[6]
Physical and Chemical Characteristics[7]				
63-2. Color	MP	Yes	40423403 40423503	No
63-3. Physical State	MP	Yes	40423403 40423503	No
63-4. Odor	MP	Yes	40423403 40423503	No
63-7. Density, Bulk Density, or Specific Gravity	MP	Yes	40423403 40423503	No
63-12. pH	MP	Yes	40423403 40423503	No
62-14. Oxidizing or Reducing Action	MP	Yes	40423403 40423503	No
62-15. Flammability	MP	Yes	40423403 40423503	No
63-16. Explodability	MP	Yes	40423403 40423503	No
63-17. Storage Stability	MP	Partially	40833501	Yes[8]
63-18. Viscosity	MP	Partially	40423403 40423503	Yes[9]
63-19. Miscibility	MP	Yes	40423403 40423503	No
63-20. Corrosion Characteristics	MP	Yes	40423403 40423503	No

(Continued, footnotes follow)

TABLE B. (Continued).

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[7]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the Makhteshim 92% FI (EPA Reg. No. 11678-6) and 87% FI (EPA Reg. No. 11678-20). Additional data requirements are listed in the preceding Table A, "Generic Data Requirements for the Diazinon Technical Grade of the Active Ingredient".

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. Makhteshim has responded to the data requirements for the 92% and 87% FIs; however, additional preliminary analysis data including the identification and quantification of tetraethylpyrophosphate (TEPP) or sulfur derivatives of TEPP of the FIs must be submitted.

5. Makhteshim has responded to the data requirements for the 87% FI; however, a revised Confidential Statement of Formula (CSF) listing the active ingredients and impurities must be submitted. The registrant has adequately responded for the 92% FI.

6. Makhteshim has responded to the data requirements for the 92% and 87% FIs; however, detailed analytical methods for the determination of the active ingredient and impurities, and complete validation data must be submitted.

7. As required in 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-20, data must be submitted on physicochemical characteristics of each manufacturing-use product (color, physical state, odor, specific gravity, pH, oxidizing or reducing action, flammability, explodability, storage stability, viscosity, miscibility, and corrosion characteristics).

TABLE B. (Continued).

8. Makhteshim has not responded to the data requirements for the 92% FI; all data requirements remain outstanding. The registrant has responded for the 87% FI; however, the registrant must verify that glass bottles are representative of commercial storage containers.

9. Makhteshim has responded to the data requirements for the 92% and 87% FIs; however, viscosity should be expressed in terms of poises, stokes or other conventional units.

TABLE A. GENERIC DATA REQUIREMENTS FOR THE DIAZINON (NICHIMEN AMERICA) TECHNICAL GRADE OF THE ACTIVE INGREDIENT.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-2. Starting Materials and Manufacture Process	TGAI	Yes	41334601	No
61-3. Formation of Impurities	TGAI	Yes	41334601	No
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	TGAI	Yes	41334602	No
Physical and Chemical Characteristics[4]				
63-2. Color	TGAI	Yes	41334603	No
63-3. Physical State	TGAI	Yes	41334603	No
63-4. Odor	TGAI	Yes	41334603	No
63-5. Melting Point	TGAI	N/A	N/A	No[5]
63-6. Boiling Point	TGAI	Yes	41334603	No
63-7. Density, Bulk Density, or Specific Gravity	TGAI	Yes	41334603	No
63-8. Solubility	TGAI or PAI	Yes	41334603	No
63-9. Vapor Pressure	TGAI or PAI	Yes	41334603	No
63-10. Dissociation Constant	TGAI or PAI	N/A	N/A	No[6]
63-11. Octanol/Water Partitioning Coefficient	PAI	Yes	41334603	No
63-12. pH	TGAI	Yes	41334603	No
63-13. Stability	TGAI	Yes	41334603	No
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the unregistered technical manufactured by Nippon Kayaku Company, Ltd. In response to the Registration Standard-Update #1 and a Data Call-In dated 5/1/87, Trans Chemic submitted data (1987; MRIDs 40404301 and 40404801) for its 87% FI (EPA Reg. No. 9618-23) and unregistered T, which have been reviewed by the Agency (G. Makhijani; CBRS No. 4082 and 4088, dated 9/2/88). Following the transfer of

TABLE A. (Continued).

the 87% FI to Nichimen America, Nippon Kayaku submitted all new data (1989; MRIDs 41334601-41334606) for the 87% FI (EPA Reg. No. 33649-1) and the unregistered T.

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. As required by 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-13, data must be submitted on physicochemical characteristics (color, physical state, odor, melting point, boiling point, specific gravity, solubility, vapor pressure, dissociation constant, octanol/water partition coefficient, pH, and stability).

5. Data on melting point are not required since the TGAI is a liquid at room temperature.

6. Not applicable because the TGAI does not dissociate under normal conditions.

TABLE B. PRODUCT SPECIFIC DATA REQUIREMENTS FOR DIAZINON (NICHIMEN AMERICA) MANUFACTURING-USE PRODUCTS.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-1. Product Composition	MP	Partially	41334604 41334605	Yes[4]
61-2. Starting Materials & Manufacture/Formulation Process	MP	Yes	41334604	No
61-3. Formation of Impurities	MP	Yes	41334604	No
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	MP	Yes	41334605	No
62-2. Certified Limits	MP	Partially	41334604 41334605	Yes[5]
62-3. Enforcement Analytical Methods	MP	Yes	41334605	No
Physical and Chemical Characteristics[6]				
63-2. Color	MP	Yes	41334606	No
63-3. Physical State	MP	Yes	41334606	No
63-4. Odor	MP	Yes	41334606	No
63-7. Density, Bulk Density, or Specific Gravity	MP	Yes	41334606	No
63-12. pH	MP	Yes	41334606	No
62-14. Oxidizing or Reducing Action	MP	Yes	41334606	No
62-15. Flammability	MP	Yes	41334606	No
63-16. Explodability	MP	Yes	40404801	No
63-17. Storage Stability	MP	Yes	40404801 41669901	No
63-18. Viscosity	MP	Yes	41334606	No
63-19. Miscibility	MP	Yes	41334606	No
63-20. Corrosion Characteristics	MP	Yes	41334606	No

(Continued, footnotes follow)

TABLE B. (Continued).

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the Nichimen America 87% FI (EPA Reg. No. 9618-23). In response to the Registration Standard-Update #1 and a Data Call-In dated 5/1/87, Trans Chemic submitted data (1987; MRIDs 40404301 and 40404801) for its 87% FI (EPA Reg. No. 9618-23) and unregistered T, which have been reviewed by the Agency (G. Makhijani; CBRS No. 4082 and 4088, dated 9/2/88). Following the transfer of the 87% FI to Nichimen America, Nippon Kayaku submitted all new data (1989; MRIDs 41334601-41334606) for the 87% FI (EPA Reg. No. 33649-1) and the unregistered T.

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. Nichimen America has responded to the data requirements for the 87% FI; however, the nominal concentrations of imputities of toxicological significance and a listing of inerts along with their nominal concentrations must be submitted.

5. Nichimen America has responded to the data requirements for the 87% FI; however, upper and lower certified limits must be provided for the inert ingredients. In addition, the certified limits must be submitted on EPA Form 8570-4 (Rev. 2-85).

6. As required in 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-20, data must be submitted on physicochemical characteristics of each manufacturing-use product (color, physical state, odor, specific gravity, pH, oxidizing or reducing action, flammability, explodability, storage stability, viscosity, miscibility, and corrosion characteristics).

TABLE A. GENERIC DATA REQUIREMENTS FOR THE DIAZINON (DREXEL AND SOUTHERN MILL CREEK) TECHNICAL GRADE OF THE ACTIVE INGREDIENT.[1]

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-2. Starting Materials and Manufacture Process	TGAI	No	N/A	Yes[4]
61-3. Formation of Impurities	TGAI	No	N/A	Yes[4]
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	TGAI	No	N/A	Yes[4]
Physical and Chemical Characteristics[5]				
63-2. Color	TGAI	No	N/A	Yes[4]
63-3. Physical State	TGAI	No	N/A	Yes[4]
63-4. Odor	TGAI	No	N/A	Yes[4]
63-5. Melting Point	TGAI	No	N/A	Yes[4,6]
63-6. Boiling Point	TGAI	No	N/A	Yes[4,7]
63-7. Density, Bulk Density, or Specific Gravity	TGAI	No	N/A	Yes[4]
63-8. Solubility	TGAI or PAI	No	N/A	Yes[4]
63-9. Vapor Pressure	TGAI or PAI	No	N/A	Yes[4]
63-10. Dissociation Constant	TGAI or PAI	No	N/A	Yes[4]
63-11. Octanol/Water Partitioning Coefficient	PAI	No	N/A	Yes[4,8]
63-12. pH	TGAI	No	N/A	Yes[4,9]
63-13. Stability	TGAI	No	N/A	Yes[4]
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the TGAI of the Drexel 87% T (EPA Reg. No. 19713-104) and the Southern Mill Creek 70.31% FI (EPA Reg. No. 6720-201), 25% FI (EPA Reg. No. 6720-199), and 12.5% FI (EPA Reg. No. 6720-197). Additional data requirements are listed in the following Table B, "Product Specific Data Requirements for Diazinon Manufacturing-Use Products".

TABLE A. (Continued).

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. Drexel and Southern Mill Creek have not responded for the TGAI of their their products listed in footnote 1; all data requirements specified in the Diazinon Registration Standard-Update #1 remain outstanding.

5. As required by 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-13, data must be submitted on physicochemical characteristics (color, physical state, odor, melting point, boiling point, specific gravity, solubility, vapor pressure, dissociation constant, octanol/water partition coefficient, pH, and stability). There are additional data requirements listed in Table B pertaining to physicochemical characteristics of those technical products which are also manufacturing use products.

6. Data are required if the TGAI is a solid at room temperature.

7. Data are required if the TGAI product is a liquid at room temperature.

8. Data are required if the TGAI product is organic or nonpolar.

9. Data are required if the TGAI substance is dispersible in water.

TABLE B.[1] PRODUCT SPECIFIC DATA REQUIREMENTS FOR DIAZINON (DREXEL AND SOUTHERN MILL CREEK) MANUFACTURING-USE PRODUCTS.

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
40 CFR §158.155-190 Product Chemistry				
Product Composition				
61-1. Product Composition	MP	No	N/A	Yes[4]
61-2. Starting Materials & Manufacture/Formulation Process	MP	No	N/A	Yes[4]
61-3. Formation of Impurities	MP	No	N/A	Yes[4]
Analysis and Certification of Product Ingredients				
62-1. Preliminary Analysis	MP	No	N/A	Yes[4]
62-2. Certified Limits	MP	No	N/A	Yes[4]
62-3. Enforcement Analytical Methods				
Physical and Chemical Characteristics[5]				
63-2. Color	MP	No	N/A	Yes[4]
63-3. Physical State	MP	No	N/A	Yes[4]
63-4. Odor	MP	No	N/A	Yes[4]
63-7. Density, Bulk Density, or Specific Gravity	MP	No	N/A	Yes[4]
63-12. pH	MP	No	N/A	Yes[4,6]
62-14. Oxidizing or Reducing Action	MP	No	N/A	Yes[4,7]
62-15. Flammability	MP	No	N/A	Yes[4,8]
63-16. Explodability	MP	No	N/A	Yes[4,9]
63-17. Storage Stability	MP	No	N/A	Yes[4]
63-18. Viscosity	MP	No	N/A	Yes[4,10]
63-19. Miscibility	MP	No	N/A	Yes[4,11]

(Continued, footnotes follow)

TABLE B. (Continued).

Data Requirement	Test Substance[2]	Does EPA have data to satisfy this requirement?	Bibliographic Citation[3]	Must additional data be submitted under FIFRA Sec. 3(c)(2)(B)?
63-20. Corrosion Characteristics	MP	No	N/A	Yes[4]
Other Requirements:				
64-1. Submittal of Samples	N/A	N/A	N/A	No

1. Data requirements pertain to the Drexel 87% T (EPA Reg. No. 19713-104) and the Southern Mill Creek 70.31% FI (EPA Reg. No. 6720-201), 25% FI (EPA Reg. No. 6720-199), and 12.5% FI (EPA Reg. No. 6720-197). Additional data requirements are listed in the preceding Table A, "Generic Data Requirements for the Diazinon Technical Grade of the Active Ingredient".

2. Test substance: MP = manufacturing-use product; PAI = purified active ingredient; TEP = typical end-use product; TGAI = technical grade of the active ingredient.

3. Underlining indicates documents that have been reviewed in this Update Document.

4. Drexel and Southern Mill Creek have not responded for the products listed in footnote 1; all data requirements specified in the Diazinon Registration Standard-Update remain outstanding.

5. As required in 40 CFR §158.190 and more fully described in the Pesticide Assessment Guidelines, Subdivision D, Guidelines Reference Nos. 63-2 through 63-20, data must be submitted on physicochemical characteristics of each manufacturing-use product (color, physical state, odor, specific gravity, pH, oxidizing or reducing action, flammability, explodability, storage stability, viscosity, miscibility, and corrosion characteristics). Additional data requirements regarding physicochemical properties of manufacturing-use products which contain only the technical grade of the active ingredient are listed in Table A, "Generic Data Requirements for the Diazinon Technical Grade of the Active Ingredient."

6. Data are required if the test substance is dispersible in water.

7. Data are required if the product contains oxidizing or reducing agents.

TABLE B. (Continued).

8. Data are required if the product contains combustible liquids.

9. Data are required if the product is potentially explosive.

10. Data are required if the product is a liquid.

11. Data are required if the product is a liquid and is to be diluted with petroleum solvents.