

CONFIDENTIAL



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

3 JUN 1988

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Product Chemistry Data Submitted in Response to the
Mancozeb Registration Standard

ID NO(S). 352-341
RCB NO(S). 3046
MRID NO(S). 403918-01

FROM: H. Fonouni, Ph.D., Chemist *H. E. Fonouni*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

TO: Lois Rossi (PM-21)
Herbicide/Fungicide Branch
Registration Division (TS-767C)

THRU: William J. Boodee, Section Head
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C) *WJB*

In response to the Mancozeb Registration Standard, requirement for submission of product chemistry data on the technical chemical (Guidance Document, April 1987), E. I. du Pont de Nemours & Company, Inc. has submitted a report on the unregistered technical product. The information/data provided and our conclusions are discussed below. In addition, Table A is included to reflect the remaining product chemistry data requirements.

61-1 product Identity and Disclosure of Ingredients
No additional information is required on this topic.

61-2 Description of Beginning Materials and Manufacturing Process
The information provided appears in Confidential Appendix A.

The information provided satisfies the requirement for this topic, no additional information is required.

61-3 Discussion of Formation of Impurities
The registrant has provided a discussion on the formation of impurities, no additional information is needed.

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63-Series Physical and Chemical Properties

The physical and chemical properties for mancozeb as reported by the manufacturer are as follows.

- 63-2 - Color: Yellow
- 63-3 - Physical State: Powder
- 63-4 - Odor: Slight sulfur
- 63-7 - Density: 31.6 lb/ft³
- 63-8 - Solubility: Product exists as an insoluble polymer.
- 63-9 - Vapor Pressure: N/A
- 63-10- Dissociation Constant: Dissolving the product in water results in its destruction.
- 63-11- Octanol/water Partition Coefficient: N/A, due to explanations provided for 63-8 and 63-10.
- 63-12- pH: 7.6 (10% slurry).
- 63-13- Stability: A loss of 0.5% activity/month at 28-31 degrees C, test period = 24 months.

ATTACHMENTS:

Attachment I - Table A (2 pages)

cc: Mancozeb Registration Standard File, SF, Reviewer
(H. Fonouni), RBP, TOX (R. Coberly), PMSD/ISB (E. Eldredge),
PM 21 (L. Rossi)

Attachment II - Confidential Appendix A (1 page)

cc: Mancozeb Registration Standard File, SF, Reviewer
(H. Fonouni), RBP, TOX (R. Coberly), PMSD/ISB (E. Eldredge),
PM 21 (L. Rossi).

cc: Mancozeb Registration Standard File, SF, RF, Reviewer
(H. Fonouni), RBP, TOX (R. Coberly), PMSD/ISB (E. Eldredge),
PM 21 (L. Rossi), Circu.

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TABLE A

GENERIC DATA REQUIREMENTS FOR THE UNREGISTERED TECHNICAL MANCOZEB, E. I. DU PONT DE NEMOURS & COMPANY, INC.

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Additional Data Required?		Reference Citation (MIRD No.)
			[Yes]	[No]	
<u>40 CFR 158.120 Product Chemistry</u>					
<u>Product Identity and Composition</u>					
61-1 - Identity of Ingredients	TGAI	R		X	403918-01
61-2 - Materials and Process	TGAI	R		X	403918-01
61-3 - Formation of Impurities	TGAI	R		X	403918-01
<u>Analysis and Certification of Product Ingredients</u>					
62-1 - Preliminary Analysis	TGAI	R	X ¹		
62-2 - Certification of Ingredient Limits	TGAI	R	X		
62-3 - Analytical Methods to Verify Certified Limits	TGAI	R	X ¹		
<u>Physical and Chemical Characteristics</u>					
63-2 - Color	TGAI	R		X	403918-01
63-3 - Physical State	TGAI	R		X	403918-01
63-4 - Odor	TGAI	R		X	403918-01
63-5 - Melting Point	TGAI	R		X	403918-01
63-6 - Boiling Point	TGAI	N/A ²			
63-7 - Bulk Density	TGAI	R			
63-8 - Solubility	TGAI	R		X	403918-01
63-9 - Vapor Pressure	TGAI or PAI	R	X		403918-01
63-10- Dissociation Constant	PAI	R		X	403918-01
63-11- Octanol/Water Partition Coefficient	PAI	R	X		403918-01
63-12- PH	TGAI	R		X	403918-01

(Continued, footnotes follow)

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TABLE A
GENERIC DATA REQUIREMENTS FOR THE UNREGISTERED TECHNICAL MANCOZEB, E. I. DU PONT DE NEMOURS & COMPANY, INC.

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Additional Data Required?		Reference Citation (MIRD No.)
			[Yes]	[No]	
158.120 Product Chemistry (Cont'd) <u>Physical and Chemical Characteristics</u> 63-13- Stability	TGAI	R	X		403918-01
Other Requirements 64-1 - Submittal of Samples	TGAI and PAI	CR ³		X	

TGAI = Technical Grade Active Ingredient (Technical Chemical); PAI = Purified Active Ingredient; R = Required;
CR = Conditionally Required; N/A = Not Applicable.

1/ A complete description of each analytical method used to analyze the active ingredient and each impurity present at a level $\geq 0.1\%$ (w/w) of the product must be provided. The methods used for the analysis of the active ingredient must distinguish mancozeb from other potential carbon disulfide producing contaminants.

2/ Not applicable, since the product is a solid at room temperature.

3/ If samples are needed, the Agency will request them.

Page 5 is not included in this copy.

Pages _____ through _____ are not included in this copy.

The material not included contains the following type of information:

- ☐ Identity of product inert ingredients
 - ☐ Identity of product impurities
 - ☒ Description of the product manufacturing process
 - ☐ Description of product quality control procedures
 - ☐ Identity of the source of product ingredients
 - ☐ Sales or other commercial/financial information
 - ☐ A draft product label
 - ☐ The product confidential statement of formula
 - ☐ Information about a pending registration action
 - ☐ FIFRA registration data
 - ☐ The document is a duplicate of page(s) _____
 - ☐ The document is not responsive to the request
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The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.
