



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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

APR 5 1988

MEMORANDUM

SUBJECT: Telone - EPA Registration No. 464-511 - Dow Chemical Company's Response to the Product Chemistry Chapter (MRID Nos. 404838-01 to -06 and 405042-01) Dated January 20 and 29, 1987 - RCB No. 3395

FROM: Gobind P. Makhijani, Chemist *Gobind Makhijani*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

TO: Lois A. Rossi/Herman Toma, PM Team 21
Fungicide-Herbicide Branch
Registration Division (TS-767C)

and

Amy S. Rispin, Ph.D., Chief
Science Integration Staff
Hazard Evaluation Division (TS-769C)

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

In response to the 1,3-Dichloropropene (Telone) Reregistration Guidance Document (issued September 18, 1986), Dow Chemical U.S.A. has submitted additional product chemistry data dated January 20 and 29, 1987 (MRID Nos. 404838-01 to -06 and 405042-01) for Telone II, Manufacturing-Use Product (MP), EPA Registration No. 464-511.

These data and our conclusions are discussed below. Also, revised tables A and B are provided at the end of this report.

62-3 - Analytical Methods to Verify Certified Limits

The registrant has now submitted the analytical method for the determination of the active ingredient and other impurities in Telone II, MP (MRID No. 405042-01). This procedure is discussed in Confidential Appendix A. The method has been validated by the registrant and no further information is required.

In light of the present submission of the analytical method the results of the preliminary analyses for six batches of 1,3-dichloropropene MP submitted earlier by the registrant and reviewed previously by RCB (memorandum dated January 26, 1988 by G.P. Makhijani) are acceptable and no further information on this topic (62-1) is required.

Physical and Chemical Characteristics

The physical and chemical characteristics for cis- and trans-dichloropropene have been updated by the registrant and are summarized below:

- 63-8 - Solubility - In water--cis-1,3-dichloropropene - (HPLC grade)--0.218 g/100 mL at 25 °C
trans-1,3-dichloropropene--0.232 g/100 mL at 25 °C
- 63-9 - Vapor Pressure - cis-1,3-dichloropropene--26.4 mm Hg at 20 °C
cis-1,3-dichloropropene--34.4 mm Hg at 25 °C
trans-1,3-dichloropropene--17.4 mm Hg at 20 °C
trans-1,3-dichloropropene--23.0 mm Hg at 25 °C
- 63-11 - Octanol/Water Partition - cis-1,3-dichloropropene--116 Coefficient at 25 °C
trans-1,3-dichloropropene--107 at 25 °C

Attachment I - Tables A and B (4 pages)

cc: Telone Registration Standard, S.F., Reviewer, RBP,
PMSD/ISB (E. Eldredge), L. Rossi (PM 21), TOX (Coberly)

Attachment II - Confidential Appendices A (1 page)

cc: Telone Registration Standard, S.F., Reviewer, RBP,
PMSD/ISB (E. Eldredge), L. Rossi (PM 21), TOX (Coberly)

cc: Telone Registration Standard, R.F., Reviewer, PMSD/ISB
(E. Eldredge), S.F., L. Rossi (PM 21), Circu, RBP, TOX
(Coberly)

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Table A
Generic Data Requirements for Telone TGAI (Unregistered Product)

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Data Required?		Reference
			[Yes]	[No]	
<u>\$158.120 Product Chemistry</u>					
<u>Product Identity and Composition</u>					
61-2 - Description of Beginning Materials and Manufacturing Process	TGAI	R	☐	☒	MRID No. 401633-01
61-3 - Discussion of Formation of Impurities	TGAI	R	☐	☒	MRID No. 401633-01
<u>Analysis and Certification of Product Ingredients</u>					
62-1 - Preliminary Analysis of Product Samples	TGAI	CR	☐	☒	MRID No. 403985-04
62-2 - Certification of Ingredient Limits	TGAI	N/A	☐	☒	Unregistered Product
62-3 - Analytical Methods to Verify Certified Limits	TGAI	R	☐	☒	MRID No. 405042-01
<u>Physical and chemical characteristics</u>					
63-2 - Color	TGAI	R	☐	☒	MRID No. 401633-01
63-3 - Physical State	TGAI	R	☐	☒	MRID No. 401633-01
63-4 - Odor	TGAI	R	☐	☒	MRID No. 401633-01
63-5 - Melting Point	TGAI	N/A	☐	☐	
63-6 - Boiling Point	TGAI	R	☐	☒	MRID No. 401633-01

Table A
Generic Data Requirements for Telone TGAI (Unregistered Product) (cont'd)

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Data Required?		Reference
			[Yes]	[No]	
<u>§158.120 Product Chemistry</u>					
<u>Physical and Chemical Characteristics</u>					
63-7 - Density, Bulk Density, or Specific Gravity	TGAI	R	☐	☒	MRID No. 401633-01
63-8 - Solubility	TGAI or PAI	R	☐	☒	MRID Nos. 401633-01 404838-01 404838-02
63-9 - Vapor Pressure	PAI	R	☐	☒	MRID Nos. 404838-03 404838-04
63-10 - Dissociation Constant	PAI	N/A	☐	☐	
63-11 - Octanol/Water Partition Coefficient	PAI	R	☐	☒	MRID Nos. 401633-01 404838-05 404838-06
63-12 - pH	TGAI	N/A	☐	☐	
63-13 - Stability	TGAI	R	☐	☒	MRID No. 401633-01
<u>Other Requirement</u>					
64-1 - Submittal of Samples	TGAI or PAI	CR	☐	☒ ^{1/}	

^{1/} If samples are needed the Agency will request them.

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Table 8
Product-Specific Data Requirements for Manufacturing-Use Product Telone II
EPA Registration No. 464-511

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Data Required?		Reference
			[Yes]	[No]	
<u>\$158.120 Product Chemistry</u>					
<u>Product Identity and Composition</u>					
61-1 - Product Identity and Disclosure of Ingredients	MP	R	☐	☒	MRID No. 403985-01
61-2 - Description of Beginning Materials and Manufacturing Process	MP	R	☐	☒	MRID No. 401633-01
61-3 - Discussion of Formation of Impurities	MP	R	☐	☒	MRID No. 401633-01
<u>Analysis and Certification of Product Ingredients</u>					
62-1 - Preliminary Analysis of Product Samples	MP	CR	☐	☒	MRID No. 403985-01
62-2 - Certification of Ingredient Limits	MP	R	☒ 1/	☐	MRID No. 403985-01 (Partial)
62-3 - Analytical Methods to Verify Certified Limits	MP	R	☐	☐	MRID No. 405042-01
<u>Physical and Chemical Characteristics</u>					
63-14 - Oxidizing or Reducing	MP	CR	☐	☒	MRID No. 401633-01
Action					
63-15 - Flammability	MP	CR	☐	☒	MRID No. 402633-01

Table B
Product-Specific Data Requirements for Manufacturing-Use Product Telone II
EPA Registration No. 464-511 (cont'd)

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Data Required?		Reference
			[Yes]	[No]	
§158.120 Product Chemistry					
<u>Physical and Chemical Characteristics</u>					
63-16 - Explodability	MP	R	☐	☒	MRID No. 401633-01
63-17 - Storage Stability	MP	R	☐	☒	MRID No. 401633-01
63-18 - Viscosity	MP	R	☐	☒	MRID No. 401633-01
63-19 - Miscibility	MP	R	☐	☒	MRID No. 401633-01
63-20 - Corrosion Characteristics	MP	N/A	☐	☒	
<u>Other Requirement</u>					
64-1 - Submittal of Samples ^{2/}	TGAI or PAI	CR			

^{1/} Certification of ingredients required on Form 8570 (Rev. 2-85)

^{2/} The Agency will request samples if needed.