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

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AUG 29 1985

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Methomyl (EPA Registration No. 201-324) [RCB No. 311]
Additional Product Chemistry (Acc. No. 255624).

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

THRU: George Beusch, Section Head
Residue Chemistry Branch
Hazard Evaluation Division (TS-769) *G. Beusch*

TO: Amy H. Rispin, Chief
Science Integration Staff
Hazard Evaluation Division (TS-769C)

and

Jay S. Ellenberger, PM#12
Registration Division (TS-767)

In response to the Registration Division's letter dated September 28, 1984, the Shell Oil Company has submitted (Acc. No. #255624 dated November 9, 1984) additional Product Chemistry data-both generic and product specific for three methomyl products-Technical Nudrin® (Reg. No. 201-353), Nudrin® 90 Methomyl Insecticide (Reg. No. 201-324) and Nudrin® 1.8 Insecticide Solution (Reg. No. 201-347).

Product Chemistry

We have updated Tables A and B with these new data for the Technical Nudrin® (Reg. No. 201-353) which is also a manufacturing-use product. The tables indicate the remaining data gaps for this product and are attached for ready reference.

Nudrin® 90 SP Methomyl Insecticide (Reg. No. 201-324) and Nudrin® 1.8 Insecticide Solution (Reg. No. 201-347) are considered to be end-use products, and therefore the responsibility of RD.

Residue Chemistry

Shell has stated that Dupont will be submitting the remaining Residue Chemistry data in compliance with the RCB requirements.

As requested by Shell, a meeting may be arranged at a suitable time between the Shell representatives and RCB/RD staff to clarify any remaining data gaps.

Attachment 1: Tables A and B attached to all copies

cc: Circu., Reviewer, TOX, RF, SF, (Methomyl), PMSD/ISB,
Beusch, Reg. Std. (Methomyl)

ATTACHMENT I: Phase II Data Table A.

GENERIC DATA REQUIREMENTS FOR THE CHEMICAL: Technical Nudrin® (+98%), Reg No 201-353

158.120 - PRODUCT CHEMISTRY

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Additional Data Required?		Footnote Number
			Yes	No	
<u>Product Identity and Composition:</u>					
61-1 - Product Identity and Disclosure of Ingredients	TGAI	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Partial 1/</u>
61-2- Description of Beginning Materials and Manufacturing Process	TGAI	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Partial 2/</u>
61-3- Discussion of Formation of Impurities	TGAI	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Partial 3/</u>
<u>Analysis and Certification of Product Ingredients:</u>					
62-1 - Preliminary Analysis	TGAI	CR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>No data 4/</u>
62-2 - Certification of Ingredient Limits	TGAI	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Partial 5/</u>
62-3 - Analytical Methods to Verify Certified Limits	TGAI	R	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Satisfied 6/</u>
<u>Physical and Chemical Characteristics</u>					
63-2 - Color	TGAI	R	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Satisfied 6/</u>
63-3 - Physical State	TGAI	R	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Satisfied 6/</u>
63-4 - Odor	TGAI	R	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Satisfied 6/</u>

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ATTACHMENT I: Phase II Data Table A, Continued.

GENERIC DATA REQUIREMENTS FOR THE CHEMICAL: Technical Nudrin® (+98%), Reg No 201-353

158.120 - PRODUCT CHEMISTRY

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Additional Data Required? Yes <input type="checkbox"/> No <input type="checkbox"/>	Footnote Number
<u>Product Identity and Composition:</u>				
63-5 - Melting Point	TGAI	R	<input type="checkbox"/>	<u>Satisfied 6/</u> <input checked="" type="checkbox"/>
63-6 - Boiling Point	TGAI	R	<input type="checkbox"/>	<u>Not applicable</u> <input checked="" type="checkbox"/>
63-7 - Density, Bulk Density, or Specific Gravity	TGAI	R	<input type="checkbox"/>	<u>Satisfied 6/</u> <input checked="" type="checkbox"/>
63-8 - Solubility	TGAI or PAI	R	<input type="checkbox"/>	<u>Satisfied 6/</u> <input checked="" type="checkbox"/>
63-9 - Vapor Pressure	PAI	R	<input type="checkbox"/>	<u>Satisfied 6/</u> <input checked="" type="checkbox"/>
63-10- Dissociation Constant	PAI	R	<input checked="" type="checkbox"/>	<u>No data 7/</u> <input type="checkbox"/>
63-11- Octanol/water Partition Coefficient	PAI	R	<input checked="" type="checkbox"/>	<u>No data 7/</u> <input type="checkbox"/>
63-12- pH	TGAI	R	<input type="checkbox"/>	<u>Satisfied 6/</u> <input checked="" type="checkbox"/> at 68°F - 1% soln in reagent water, 7.28; -5% soln in reagent water, 7.14 8/
63-13- Stability	TGAI	R	<input type="checkbox"/>	<u>Satisfied 6/</u> <input checked="" type="checkbox"/>

Other Requirements:

64-1 - Submittal of Samples CR

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ATTACHMENT I: Phase II Data Table B,

PRODUCT SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING-USE PRODUCTS CONTAINING: Technical Nubdrin®(+98%), Reg No 201-353

158.120 - PRODUCT CHEMISTRY

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Additional Data Required?		Footnote Number
			Yes	No	
61-1 - Identity of Ingredients	MP	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Partial 1/</u>
61-2- Description of Beginning Materials and Manufacturing	MP	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Partial 2/</u>
61-3 - Discussion of Formation of Ingredients	MP	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Partial 3/</u>

Product Identity:

Analysis and Certification of Product Ingredients:

62-1 - Preliminary Analysis	MP	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>No data 4/</u>
62-2 - Certification of Limits	MP	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Partial 5/</u>
62-3 - Analytical Methods to Verify Certified Limits	MP	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Satisfied 6/</u>

Physical and Chemical Characteristics

63-2 - Color	MP	R	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Satisfied 6/</u>
63-3 - Physical State	MP	R	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Satisfied 6/</u>
63-4 - Odor	MP	R	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Satisfied 6/</u>

ATTACHMENT I: Phase II Data Table B Continued.

PRODUCT SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING-USE PRODUCTS CONTAINING: Technical Nudrin® (+988), Reg No 201-353
 158.120 - PRODUCT CHEMISTRY

Guideline Citation and Name of Test	Test Substance	Guidelines Status	Are Additional Data Required? Yes <input type="checkbox"/> No <input type="checkbox"/>	Footnote Number
<u>Physical and Chemical Characteristics 4/</u>				
63-7 - Density, Bulk Density, or Specific Gravity	MP	R	<input type="checkbox"/>	<u>Satisfied 6/</u>
63-12- pH	MP	R	<input type="checkbox"/>	at 68°F - 1% soln in reagent water, 7.28; -5% soln in reagent water, 7.14 <u>8/</u>
63-14- Oxidizing or Reducing Action	MP	CR	<input type="checkbox"/>	No apparent effect/ reaction for 24 hr. test period <u>8/</u>
63-15- Flammability	MP	CR	<input type="checkbox"/>	Not applicable
63-16- Explodability	MP	R	<input type="checkbox"/>	<u>Satisfied 6/</u>
63-17- Storage Stability	MP	R	<input type="checkbox"/>	Stable for 2.5 yrs at ca 72°F <u>8/</u>
63-18- Viscosity	MP	CR	<input type="checkbox"/>	Not applicable
63-19- Miscibility	MP	CR	<input type="checkbox"/>	Not applicable
63-20- Corrosion Characteristics	MP	R	<input type="checkbox"/>	Compatible with polyethylene for 2.5 yrs at ca 72°F <u>8/</u>
<u>Other Requirements:</u>				
64-1 - Submittal of samples	PAI	CR	<input type="checkbox"/>	-

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Footnotes to Tables A and B

- 1/ Unidentified impurities [REDACTED] should be characterized.
- 2/ Details of beginning materials, manufacturing process and changes in the beginning materials of manufacturing process are required as outlined in "Pesticide Assessment Guidelines Subdivision D. Product Chemistry"
- 3/ Discussion of the formation of unintended ingredients is required as outlined in the Guidelines
- 4/ Analysis of five production batches is required
- 5/ Certification of limits is required as per Guidelines
- 6/ According to data of previous submission, MRID 05012838
- 7/ Data are required for the physical/chemical properties: dissociation constant, and octanol/water partition coefficient.
- 8/ According to data of the present submission, Acc. No. 255624

The technical product is considered to be a manufacturing-use product, as well.

INFORMATION WHICH MAY REVEAL A QUALITY CONTROL PROCEDURE IS NOT INCLUDED