

DATE OUT: 25/FEB/2000

SUBJECT: PRODUCT CHEMISTRY REVIEW OF MP [] EP [X]
DP BARCODE No.: D261547 REG./File Symbol No.: 65331-L
PRODUCT NAME: Frontline Plus for Dogs

FROM: Shyam Mathur, Chemist
Product Chemistry Team
Technical Review Branch/RD (7505C)

S Mathur
02-25-00

TO: Arnold Layne, PM 03
Insecticide Branch/RD(7505C)

INTRODUCTION:

The registrant has submitted the product chemistry data to support the registration of the subject product.

SUMMARY OF FINDINGS:

1. The subject product contains Fipronil [REDACTED] and Methoprene [REDACTED] as the active ingredients with product label claims of 9.80% and 8.80% respectively.
2. The CSF for the basic formulation (dated 09-27-99) is not filled out correctly, is not in compliance with PR Notice 91-2 and does not agree with the label claim nominal concentration. The data submitted corresponding to the guideline reference 830.1550 (Product Identity) and 830.1750 (Certified limits) does not satisfy the data requirements of 40CFR§158.155 and 158.175 respectively.
3. The data submitted corresponding to the guideline reference 830.1650 (Description of formulation process) and 830.1670 (Discussion on the formation of impurities) satisfy the data requirements of 40CFR158.165 and 158.167 respectively.
4. The data submitted corresponding to the guideline reference 830.1800 (Enforcement of analytical method) satisfy the data requirements of 40CFR§158.180.
5. The data submitted corresponding to the guideline reference Physical state (830.6303), density (830.7300), pH (830.7000), Oxidation/Reduction (830.6314), Flammability (830.6315), Explodability (830.6316), Storage stability (830.6317), Viscosity (830.7100), Miscibility (830.6319), Corrosion characteristics (830.6320), & Dielectric breakdown voltage (830.6321) satisfy the data requirements of 40CFR§158.190.

6. The registrant has submitted the results of 3 months storage stability (830.6317) study and 1 month corrosion characteristics (830.6320) study. The registrant is required to submit minimum of 12 months storage stability data. The corrosion characteristics study is usually done along with one year storage stability study.

CONCLUSIONS:

The TRB has reviewed the product chemistry data submitted for the subject end-use product and has concluded that:

1. The CSF for the basic formulation (dated 09-27-99) is not filled out correctly, is not in compliance with PR Notice 91-2 and does not agree with the label claim nominal concentration. The data submitted corresponding to the guideline reference 830.1550 (Product Identity) and 830.1750 (Certified limits) does not satisfy the data requirements of 40CFR§158.155 and 158.175 respectively and is not acceptable. The data submitted under MRID No. 449421-01 [Formulation process, 830.1650] do not concur with the CSF (dated 09-27-99). The registrant must submit the revised CSF which must be in compliance with PR Notice 91-2 and the information provided on the CSF must concur with that in the study. Two alternate inert ingredients used in the formulation are not cleared by the Agency.
2. The data submitted corresponding to the guideline reference 830.1650 (Description of formulation process) and 830.1670 (Discussion on the formation of impurities) satisfy the data requirements of 40CFR158.165 and 158.167 respectively and are acceptable.
3. The data submitted corresponding to the guideline reference 830.1800 (Enforcement of analytical method) satisfy the data requirements of 40CFR§158.180 and are acceptable.
4. The registrant is required to submit the results of corrosion characteristics (830.6320) and one year storage stability (830.6317) studies to the Agency on completion.
5. The data submitted corresponding to the guideline reference Physical state (830.6303), density (830.7300), pH (830.7000), Oxidation/Reduction (830.6314), Flammability (830.6315), Explodability (830.6316), Viscosity (830.7100), Miscibility (830.6319), & Dielectric breakdown voltage (830.6321) satisfy the data requirements of 40CFR§158.190 and are acceptable.

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 DATE: 02-24-00

1. Reviewer: S.B.Mathur 2. Company: Merial Limited
3. Type of Submission: Registration [X] Reregistration []
 New [X] Resubmission [] Amendment [] "ME-TOO" []
 Alternate Formulation [] Experimental Use Permit []
 Other (Specify) _____
4. If "Me-TOO" Registration, this product is [] is not []
 similar or substantially similar to EPA's Reg. No.: _____

If not, comment in Confidential Appendix A on the differences between the registered and the new source where significant

CONFIDENTIAL STATEMENT OF FORMULA

5. Type of formulation and the sources of active ingredients:
 • Non-integrated formulation system.....[X]
 • Are all technical grade active ingredients used registered?
 • yes [X] • no [], If no, specify _____
 • Integrated formulation system.....[]
6. Clearance of intentionally added ingredients in the formulation for the intended use (indicate in the Confidential Appendix those that are not cleared; the PC Codes should be provided by the chemist on the CSF for those that are cleared):
- 6(a) Formulation intended for food use under 40CFR§180.1001:
 • yes [] • no [X] • Some are cleared, others are not []
 Cleared under list: • c [] • d [] • e []
 Are there any limitations for use as an inert under 40CFR§180.1001?
 • yes [] • no [], If yes, specify _____
- 6(b) Formulation intended for non-food use:
 • yes [X] • no [] • Some are cleared, others are not []
- 6(c) Clearance by the FDA of certain formulations under 21CFR§170 to 199. Examples: (a) indirect food additives, such as food contact surface sanitizers; adhesives, coatings, paper and paperboard products that may contact food in packaging or holding; and (b) substances generally recognized as safe (GRAS).
 • yes [] • no [] • Some are cleared, others are not []
 If yes, the entire formulation is cleared under 21CFR§_____

PRODUCT CHEMISTRY DATA (SERIES 61, 62, 63)

<u>14. Chemical IDs/Manufacture/ Analytical Information</u> New Guideline:830.--	<u>Data Required Fulfilled</u>	<u>MRID No.</u>
1550.(61-1)Chemical Identity(CSF)	U	09-27-99
1600.(61-2a) Beginning Materials 1620.(61-2b) Formulation Process	Y	449421-01
1670.(61-3) Discussion of Impurities	Y	449421-01
1700.(62-1) Preliminary Analysis	NA	
1750.(62-2) Certified Limits(CSF)	U	09-27-99
1800.(62-3)Enforcmnt. of Anal.Method	Y	449421-01

<u>15. Physical/Chemical Properties</u> New Guideline No. 830.---	<u>Data Required Fulfilled</u>	<u>Value or Qualitat. Descrip.</u>	<u>MRID No.</u>
6303.(63-3)Physical State	Y	vis.liquid	" "-02
7300.(63-7)Density/Bulk Den.	Y	1.02 g/ml	" "
7000.(63-12) pH	Y	5.24	" "
6314.(63-14)Oxid/Red Action	Y	None	" "
6315.(63-15a)Flamm.-Flsh Pt.	Y	36.7°F	" "
6315.(63-15b) Flame Exten.	NA		
6316.(63-16)Exploability	Y	non- explosive	" "
6317.(63-17)Storage Stabltly.	PR 92-5	I(3 months report)	" "-03
7100.(63-18)Viscosity	Y	9.73 mm ² /s	" "-02
6319.(63-19) Miscibility	NA		
6320.(63-20)Corrosion Charac	I	under progress	" "-03
6321.(63-21)Dielec.Bkd.Vltg	NA		

Explanations: Y = The Requirements Were Fulfilled; N = The Requirements Were Not Fulfilled; NA = Not Applicable;
G = Data Gap; U = Requires Upgrading; I = Incomplete or In Progress; W = Waived.

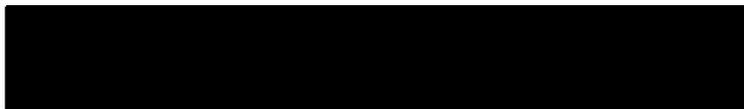
CONFIDENTIAL APPENDIX

DP BARCODE No.: D261547 REG./File Symbol No.: 65331-L

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Name of the inert ingredients not cleared by the Agency:



Inert ingredient information may be entitled to confidential treatment