

US EPA ARCHIVE DOCUMENT

DATE OUT: 31 Oct 2006

SUBJECT: **PRODUCT CHEMISTRY REVIEW** MP [] EP [x]
DP BARCODE No.: D330160
Reg. File Symbol No.: 63823-LU
PRODUCT NAME: TC 253
COMPANY: Management Contract Services, Inc.
Decision No.: 367048 PC CODE: 128897
FOOD USE: [] Integrated Formulation []

FROM: Bruce F. Kitchens, Chemist
Technical Review Branch
Registration Division (7505P)

Bruce F. Kitchens
31 Oct 2006

TO: RM #13, George LaRocca/Bonaventure Akinlosotu
Insecticide Branch (7505P)
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SLM 11/02/06

INTRODUCTION:

The registrant, Management Contract Services, Incorporated, is submitting an application to register the proposed end-use product, TC 252. The active ingredient in this product is lambda-Cyhalothrin [REDACTED] at a label nominal concentration of 9.7% a.i. This product is intended for use as an insecticide. In support of this request, the registrant has submitted a basic Confidential Statement of Formula (CSF) dated 12 Apr 2006, a draft label, and product chemistry data contained in MRID#s 468316-01 and 468498-01. The Technical Review Branch (TRB) has been asked to review this submission.

SUMMARY OF FINDINGS

TRB has reviewed this submission and reports the following findings:

1. This product is produced from a registered source of the active ingredient.
2. All inert ingredients are cleared for use in formulated pesticide products.
3. The nominal concentration of the active ingredient listed on the proposed CSF and the draft label are the same.
4. The draft label contains the appropriate storage and disposal statements. In addition, the draft label contains the appropriate physical and chemical hazard statement with regard to use around electrical equipment due to electric shock.
5. The active ingredient's certified limits as proposed on the basic CSF are acceptable.

PRODUCT INGREDIENT SOURCE INFORMATION IS NOT INCLUDED

CONCLUSIONS:

TRB has reviewed this submission and concludes the following:

- ✓ 1. The basic formula CSF for the proposed end-use product, TC 2531 dated 12 Apr 2006 is acceptable.
2. This submission satisfies the data requirements as specified in 40 CFR 158.155, 158.160, 158.165, 158.167, 158.175, and 158.180 with respect to product identity and composition, description of materials used to produce the product, description of formulation process, discussion of formation of impurities, certified limits, and enforcement analytical method.
3. This submission satisfies the data requirements as specified in 40 CFR 158.190 with respect to physical and chemical properties. The data requirements for storage stability and corrosion characteristics are not satisfied. The registrant indicates that studies are in progress at this time. Inform the registrant that these data must be submitted to the Agency for review upon completion.

PRODUCT CHEMISTRY DATA (SERIES 830 Subgroup A)

Subgroup A – Product Identity and Composition	<u>Data Required Fulfilled</u>	<u>MRID No.</u>
830.1550. Chemical Identity	Y	468316-01
830.1600. Beginning Materials	Y	468316-01
830.1650. Formulation Process	Y	468316-01
830.1670. Discussion of Impurities	Y	468316-01
830.1700. Preliminary Analysis	NA	
830.1750. Certified Limits	Y	see csf 4/12/06
830.1800. Enforcement Analytical Method	Y	468316-01

PRODUCT CHEMISTRY DATA (SERIES 830 Subgroup B)

Subgroup B – Physical and Chemical Properties	<u>Data Required Fulfilled</u>	<u>Value or Qualitat. Descrip.</u>	<u>MRID No.</u>
830.6302. Color	Y	Yellow-white	468498-01
830.6303. Physical State	Y	Liquid	468498-01
830.6304. Odor	Y	Typical of λ-Cyhalothrin & microcaps	468498-01
830.6314. Oxidation/Reduction Action	NA	Product does not contain oxidizing or reducing agents	
830.6315. Flammability	Y	Product did not flash up to 85°C	468498-01
830.6316. Explodability	NA	Product does not contain explosive components	
830.6317. Storage stability	I	Study in progress	
830.6319. Miscibility	NA	Product is not an EC	
830.6320. Corrosion Characteristics	I	Study in progress	
830.6321. Dielectric Breakdown Voltage	NA	Product not used around electrical equipment	
830.7000. pH	Y	7.43 @ 23.1°C	468498-01
830.7100. Viscosity	Y	482 cps @ 23°C	468498-01
830.7000. Density/Bulk Density	Y	1.0103 g/cm ³	468498-01

Explanations: A = 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.

Enforcement Analytical Method: (MRID No. 468316-01)

The active ingredient, λ -Cyhalothrin, was determined by High Performance Liquid Chromatography (HPLC) using Ultraviolet (UV) detection and an internal standard by Analytical method TC-253-1.

Equipment and Parameters

Instrument:	Perkin Elmer High Performance Liquid Chromatograph (HPLC)
Detector:	LC 235 Diode Array Ultraviolet Detector (UV)
Wavelength:	240 nm
Column:	SI-60, 25 cm x 4.5 mm i.d., 5 μ
Column Temperature:	40 $^{\circ}$ C
Internal Std.:	Dibutylphthalate
Sample Size: ul	
Mobile Phase:	Ether/Hexane (15/85) v/v
Flow Rate:	1.6 ml/min