Cover Sheet for

ENVIRONMENTAL CHEMISTRY METHOD

Pestcide Name: Ethoprop

MRID #: 417124-01

Matrix: Soil

Analysis: GC/FPD

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If you have difficulties in downloading the method, or further questions concerning the methods, you may contact Elizabeth Flynt at 228-688-2410 or via e-mail at flynt.elizabeth@epa.gov.

MORSE LABORATORIES, INC.

CHEMICAL ANALYSES AND RESEARCH

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April 20, 1989

RHONE-POULENC, INC.

Rhone-Poulenc Analytical Method No. 172

An Analytical Residue Method for the Determination of O-Ethyl-S, S-DI-N-Propylphosphorodithioate (Ethoprop) in Soil by Gas Chromatography (August 1984)

Rhone-Poulenc Study No.: EC/P-89-0012

PROCEDURE:

1. Homogenize the soil sample such that a representative subsample may be obtained (remove stones, sticks and other extraneous materials).

2. Weigh 50 g of soil into s 500 mL erlenmeyer.

   NOTE: See the Rhone-Poulenc Protocol Study No.: EC/P-89-0012 for Soil Moistures. We will not be following Morse Labs SOP for Soil Moistures.

3. Add 100 mL MeOH to the bottle, cover with foil and tape foil around the neck of the erlenmeyer.

4. Blend on a roller mill for 15 minutes (Morse Labs uses a platform shaker).

5. Allow soil to settle out. Filter erlenmeyer contents through a buchner funnel with the aid of a mild vacuum. Rinse the erlenmeyer with 30 mL and pour into the buchner funnel.

6. Discard the filter cake.

7. Add 5 drops of 10% decanol in acetone to filtrate.

8. Rotovap at 30-35°C to approximately 30 mL.

9. Transfer to a 250 mL separatory funnel. Rinse the flask with 20 mL of MeOH and pour into the separatory funnel.

10. Add to the separatory funnel 150 mL of the 10% aqueous sodium chloride solution.

11. Partition the aqueous solution two times with 100 mL portions of hexane.

12. Drain each 100 mL of hexane through Whatman #4 filter paper containing anhydrous sodium sulfate into a 400 mL beaker.

13. Add 5 drops of 10% decanol in acetone.

14. Place on steambath to evaporate. Be sure to place the beaker on top of the watchglass. If the beaker gets too cool, the hexane will pick up H_2O.

15. Evaporate down to 1-2 mL.

16. Transfer the 1-2 mL of hexane to a test tube. Continue the transfer using ETAC.

RESIDUE - RAW DATA SHEET

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Product Ethoprop

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M.L. Project No. ML89-0095-RHP

Sponsor No. ______

Protocol No. EC/P-89-0012

DATE SAMPLE RECEIVED: 8-4-89
DATE SAMPLE GROUND/PREP: NA
DATE SAMPLE FORTIFIED (STABILITIES): 8-15-89
DATE SAMPLE EXTRACTED: 3-30-90
DATE SAMPLE ANALYZED (INSTRUMENTATION): 4-10-90

SAMPLES STORED IN FREEZER AT -20 ± 2 °C UNLESS OTHERWISE NOTED: ______
ANALYTICAL METHOD: Rhone Poulenc Analytical Method No. 172
CHEMICAL SPECIES ANALYZED FOR: Ethoprop
DETECTION LIMIT 0.01 PPM/~~PPB~~ NOTEBOOK ______ WORKING SHEET x

SAMPLE IDENTIFICATION	MATRIX	ADDED ug	ADDED PPM	gm of Sample	mL Solvent	mL Aliquot	Final Vol.	Dil. Fact.	uL Inject		Pk. Ht. A mm	Atten. B	Corr AxB	~~Std-Grv~~ Sens (nnh/ng)	ng Found	mg Inject	PARTS PER MILLION FOUND	PARTS PER MILLION CORR.	% RECOV.
Ck	Soil	-	-	50.0	150	150	5	1	2	—	0.0	—	0.0	56.2	0.000	20	0.000	0.00	
Method Spike		2.5	0.05	50.0	150	150	5	1	2	—	48.5	—	48.5	56.2	0.863	20	0.043	—	86
Stability Spike Dup A		0.5	0.01	50.0	150	150	5	1	2	—	9	—	9	56.2	0.160	20	0.0080	—	80
Stability spike Dup B		0.5	0.01	50.0	150	150	5	1	2	—	9	—	9	56.2	0.166	20	0.0080	—	80
Stability spike Dup A		1.0	0.02	50.0	150	150	5	1	2	—	18	—	18	56.2	0.320	20	0.0160	—	86
Stability spike Dup B		1.0	0.02	50.0	150	150	5	1	2	—	19	—	19	56.2	0.338	20	0.0169	—	84
Stability spike Dup A		2.5	0.05	50.0	150	150	5	1	2	—	42	—	42	56.2	0.747	20	0.037	—	74
Stability spike Dup B	↓	2.5	0.05	50.0	150	150	5	1	2	—	48	—	48	56.2	0.854	20	0.043	—	86

For soil results only: x as rec'd basis
______ dry weight basis

COMMENTS 8 month Stability Study

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Doug Reat

Reviewed by: Simon Clark

OAM by: [illegible] Date [illegible]

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