

## PESTICIDE FORMULATION &amp; RESIDUE ANALYTICAL CENTRE, PMD, NIPHM, HYDERABAD

Sr. No. in Scope

NABL / NON NABL

**Flow Chart for Analysis of Pretilachlor Content in Formulation Sample**

		Date of Analysis	
Sl. No.	Step	Execution	Executed By
1.	Sample No.		
2.	Name of Sample		
3.	<b>Procedure</b>		
3.1	<b>Preparation of Internal Standard Solution</b>		
3.1.1	Weigh 0.56 g of Benzoic acid 2- Naphthyl ester in 100 mL volumetric flask.	g	
3.1.2	<i>Note down the serial No. of the balance log book</i>		
3.1.3	Dissolve and make up to the mark with Acetone		
3.2	<b>Preparation of Standard Solution</b>		
3.2.1	Purity of standard	%	
3.2.2	Weigh 0.1 g a.i. of standard in 25 mL volumetric flask	g	
3.2.3	<i>Note the serial No. of the balance log book</i>		
3.2.4	Add 20mL of internal standard solution (3.1.3).	mL	
3.2.5	Dissolve and make up to the mark with acetone.		
3.3	<b>Preparation of Sample Solution</b>		
3.3.1	Note down the percent active ingredient content declared on the sample	%	
3.3.2	Weigh 0.1 g a.i. of sample in 25 mL volumetric flask	g	
3.3.3	<i>Note down the serial No. of the balance log book.</i>		
3.3.4	Add 20mL of internal standard solution (3.1.3).	mL	
3.3.5	Dissolve and make up to the mark with acetone.		
4.	<b>GC Parameters</b>		
4.1	<b>Column:</b> Packed with 3% OV-225 Gaschrome Q (80-100) mesh		
4.1.1	Length X ID : 1.8 m X 2 mm		
4.2	<b>Gas</b>		
4.2.1	Carrier: Nitrogen: 30 mL/min		
4.2.2	Hydrogen: 30 mL/min		

Name of the Laboratory : <b>Pesticide Formulation &amp; Residue Analytical Centre, PMD, NIPHM, Hyderabad</b>					
Document No.	:	FC-PF-260	Document Name	:	Flow chart for analysis of Pretilachlor content, % by mass
Revision No.	:	00	Issue Date	:	01/11/2013
Revision Date	:	--	Next Revision Date	:	01/11/2015
Prepared By		Checked By		Approved & Issued By	
Mrs. T. Sridevi (Deputy Technical Manager)		Mr. C.V. Rao (Technical Manager)		Dr. Abhay Ekbote (Director PM & Quality Manager)	

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4.2.3	Air: 300 mL/min		
4.3	<b>Temperatures</b>		
4.3.1	Oven: 225°C		
4.3.2	Injector: 250°C		
4.3.3	Detector: 280°C		
4.4	<b>Injection volume:</b> 1 µl		
5.	<b>Results</b>		
	Sample chromatogram no.		
	Standard chromatogram no.		

## 6. Calculation:

Pretilachlor content, % by mass= $\frac{A_1 \times A'IS'_2 \times M_1}{A'IS'_1 \times A_2 \times M_2} \times P$	<b>Where,</b> $A_1$ = Peak area of pretilachlor in the sample solution. $A'IS'_1$ = Peak area of internal standard in the sample solution. $A'IS'_2$ = Peak area of internal standard in the standard solution. $A_2$ = Peak area of pretilachlor in the standard solution. $M_1$ = Mass in 'g' of standard pretilachlor in the standard solution. $M_2$ = Mass in 'g' of pretilachlor sample taken for test. $P$ = Percent purity of pretilachlor standard.
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## Result:

Sr.No.	Name of test	Result	Unit	Method of Analysis
1.	Active ingredient		%	IS: 15158:2002 (Reaffirmed 2009)
Remark / Reference :				
Analyzed by	Name			
	Dated signature			
Checked by	Name			
	Dated signature			

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