

PESTICIDE FORMULATION & RESIDUE ANALYTICAL CENTRE, PMD, NIPHM, HYDERABAD

Sr. No. in Scope

NABL / NON NABL

Flow chart for analysis of Profenofos content in formulation sample

Date of Analysis

Sl. No.	Step	Execution		Executed By
1.	Sample No.			
2.	Name of Sample			
3.	Procedure	R1	R2	
3.1	Preparation of Internal Standard			
3.1.1	Weight of di-butyl phthalate (DBP) taken in 100 ml volumetric flask	g	g	
3.1.2	Dissolve and dilute up to the mark with acetone			
3.2	Preparation of Standard			
3.2.1	Weight of the standard taken in 25 ml volumetric flask	g	g	
3.2.2	Purity of standard	%	%	
3.2.3	Add internal standard solution (3.1.2)	ml	ml	
3.2.4	Dilute up to the mark with acetone			
3.3	Sample preparation			
3.3.1	Weight of the sample taken in 25 ml volumetric flask	g	g	
3.3.2	Add internal standard solution (3.1.2)	ml	ml	
3.3.3	Dilute up to the mark with acetone			
4.	GC Parameters			
4.1	Column			
4.1.1	Length: 180 cm			
4.1.2	I.D: 2mm			
4.1.3	Packed with 3 % OV 225 on Gas chrom Q (80-100) mesh			
4.2	Gas			
4.2.1	Carrier: Nitrogen: 30 ml/min			
4.2.2	Hydrogen: 45 ml/min Air: 450 ml/min			
4.3	Temperatures			
4.3.1	Oven: 210°C			
4.3.2	Injector: 240°C			
4.3.3	Detector: 260°C			
	4.4 Injection volume: 2 µl			
	4.5 Range: 1			
	4.6 Attenuation: -3			
5.	Result			
	Sample chromatogram no.			
	Standard chromatogram no.			

6. CALCULATION:

Name of the Laboratory : Pesticide Formulation & Residue Analytical Centre, PMD, NIPHM, Hyderabad			
Document No.	:	FC-PF-208	Document Name : Flow chart for analysis of Profenofos content
Revision No.	:	01	Issue Date : 01/07/2011
Revision Date	:	26/03/2014	Next Revision Date : 26/03/2016
Prepared By		Checked By	
Ms. T. Sridevi (Deputy Technical Manager)		Mr. C.V. Rao (Technical Manager)	
Approved & Issued By			
Dr. Abhay Ekbote (Director PM & Quality Manager)			

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

Sl. No.	Name of Test	Result	Unit	Method of Analysis
1.	Active ingredient		%	GC method (IS - 15238 : 2002)
Remark / Reference :				

Analyzed by	Name	
	Dated Signature	
Checked by	Name	
	Dated Signature	

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