

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

Sr. No. in Scope

NABL / NON NABL

Flow chart for analysis of Quinalphos content in formulation sample

Date of Analysis

Sl. No.	Step	Execution	Executed By
1.	Sample No.		
2.	Name of Sample		
3.	Procedure		
	3.1 Preparation of Internal Standard		
3.1.1	Weight of Di-n-butyl Phthalate (DBP) taken in 50 ml volumetric flask		
3.1.2	Dissolve and dilute up to the mark with acetone		
	3.2 Preparation of Standard		
3.2.1	Weight of standard taken in 25 ml volumetric flask	g	
3.2.2	Purity of standard	%	
3.2.3	Add internal standard (3.1.2)	ml	
3.2.4	Dilute up to the mark with Acetone.		
	3.3 Preparation of Sample		
3.3.1	Weight of sample taken in 25 ml Volumetric flask	g	
3.3.2	Add internal standard (3.1.2)	ml	
3.3.3	Dilute up to the mark with Acetone		
4.	GC Parameters		
	4.1 Column		
4.1.1	Length: 200 cm		
4.1.2	I.D: 1/8"		
4.1.3	Packed with 3 % OV 17 on Gas Chrom Q (80-100) mesh		
	4.2 Temperature		
4.2.1	Oven: 220 ^o C		
4.2.2	Injector: 250 ^o C		
4.2.3	Detector: 250 ^o C		
	4.3 Injection volume: 2 µl		
	4.4 Range: 20		
	4.5 Attenuation: -6		
5.	Results		
	Sample chromatogram no.		
	Standard chromatogram no.		

Name of the Laboratory : Pesticide Formulation & Residue Analytical Centre, PMD, NIPHM, Hyderabad

Document No. : FC-PF-207 Document Name : Flow chart for analysis of Quinalfos content, % by mass

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Prepared By	Checked By	Approved By	Issued By
Ms. M. Jaya Devi (Deputy Technical Manager)	Mr. C.V. Rao (Technical Manager)	Dr. Abhay Ekbote (Director PM)	Dr. Abhay Ekbote (Quality Manager)

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6. Calculation:

$$\text{Quinalphos content, percent by mass} = \frac{A_1 \times A'IS'_2 \times M_1}{A'IS'_1 \times A_2 \times M_2} \times P$$

Where,

- A_1 = Peak area of quinalphos 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 quinalphos in the standard solution
 M_1 = Mass in 'g' of quinalphos in the standard solution
 M_2 = Mass in 'g' of sample taken for test
 P = Percent purity of quinalphos standard

Result:

Sl. No.	Name of test	Result	Unit	Method of Analysis
Remark / Reference :				

Analyzed by	Name	
	Dated signature	
Checked by	Name	
	Dated signature	

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