

**Flow Chart for Analysis of Hexaconazole Content in Formulation sample**

Date of Analysis

Sl. No.	Step	Execution		Executed By
1.	Sample No.			
2.	Name of Sample			
<b>3.</b>	<b>Procedure</b>			
<b>3.1</b>	<b>Preparation of Internal Standard Solution</b>	<b>R<sub>1</sub></b>	<b>R<sub>2</sub></b>	
3.1.1	Weigh 0.6g of Di-butyl Phthalate (DBP) in 100 mL volumetric flask			
3.1.2	Note down the serial No. of the balance log book	g	g	
3.1.3	Dissolve and make up to the mark with chloroform			
<b>3.2</b>	<b>Preparation of Standard Solution</b>			
3.2.1	Purity of standard			
3.2.2	Weigh 0.1 g a.i. of standard in 50 mL volumetric flask	%	%	
3.2.3	Note the serial No. of the balance log book	g	g	
3.2.4	Add 10mL of internal standard solution (3.1.3).			
3.2.5	Dissolve and make up to the mark with chloroform	mL	mL	
<b>3.3</b>	<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 50 mL volumetric flask	%	%	
3.3.3	Note down the serial No. of the balance log book.	g	g	
3.3.4	Add 10mL of internal standard solution (3.1.3).			
3.3.5	Dissolve and make up to the mark with chloroform	mL	mL	
<b>4.</b>	<b>GC Parameters</b>			
<b>4.1</b>	<b>Column</b>			
4.1.1	Length: 100 cm			
4.1.2	I.D: 2mm			
4.1.3	Packed with 5% OV-101 Chromosorb WHP (80-100) mesh			
<b>4.2</b>	<b>Gas</b>			
4.2.1	Carrier: Nitrogen: 40 mL/min			
4.2.2	Hydrogen: 45 mL/min			
4.2.3	Air: 450 mL/min			
<b>4.3</b>	<b>Temperatures</b>			
4.3.1	Oven: 200°C			
4.3.2	Injector: 230°C			
4.3.3	Detector: 280°C			
<b>4.4</b>	<b>Injection volume:</b> 1 µl			
<b>5.</b>	<b>Results</b>			
	Sample chromatogram no.			
	Standard chromatogram Attached to			

Name of the Laboratory : <b>Pesticide Formulation &amp; Residue Analytical Centre, PMD, NIPHM, Hyderabad</b>					
Document No.	:	FC-PF-210	Document Name	:	Flow chart for analysis of Hexaconazole content, % by mass
Revision No.	:	02	Issue Date	:	01/07/2011
Revision Date	:	26/03/2014	Next Revision Date	:	26/03/2016
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)	

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

## 6. Calculation:

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

Sl. No.	Name of Test	Result	Unit	Method of Analysis
1.	Active ingredient (Hexaconazole)		%	

Remark / Reference :

Analyzed by	Name	
	Dated Signature	
Checked by	Name	
	Dated Signature	

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