FC-PF-236

PESTICIDE FORMULATION & RESIDUE ANALYTICAL CENTRE

PMD, NIPHM, HYDERABAD

Sr. No. in Scope

NABL / NON NABL

Flow Chart for Analysis of Triazophos Content in formulation sample

Date of Analysis	

Sl. No.	Step		Execution	Executed By
1.	Sample No.			
2.	Name of Sample			
	Sample Description			
3.	**Procedure**			
	3.1 Preparation of Mobile Phase			
	3.1.1	Mix Iso-octane and 1,4 Dioxane (saturated with 0.15% water) in the proportion of 90:10 (v/v).		
	3.1.2	Pass through membrane filter under vacuum.		
	3.1.3	Homogenize the mixture using a magnetic stirrer.		
	3.1.4	Allow the mixture to attain room temperature.		
	3.3 Preparation of Standard			
	3.3.1	Weigh standard equivalent to 110 mg of active ingredient in 50 ml volumetric flask.	g	
	3.3.2	Note the Purity of standard	%	
	3.3.3	Add to it 10 ml of Toluene an dissolve the standard.		
	3.3.4	Dilute up to the mark with mobile phase (3.1.4).		
	3.3.5	Volume of solution (3.1.4) pipette out to a 25 ml volumetric flask.	ml	
	3.3.6	Dilute up to the mark with solvent mixture (3.1.4).		
	3.4 Preparation of Sample			
	3.4.1	Note the Purity of sample	%	
	3.4.2	Weigh accurately sample equivalent to 110 mg of active ingredient in 50 ml volumetric flask.	g	
	3.4.3	Add to it 10 ml of Toluene to dissolve the sample		
	3.4.4	Dilute up to the mark with solvent mixture (3.1.4)		
	3.4.5	Volume of solution (3.4.4) pipette out to a 25 ml volumetric flask	ml	
	3.4.7	Dilute up to the mark with solvent mixture (3.1.4)		
	3.4.10	Dilute to the mark with solvent mixture (3.1.4)		
4.	**HPLC Parameters**			
	4.1 Column			
	4.1.1	Stainless Steel Packed with Silica particle size 5um		
	4.1.2	Length: 250 mm		

FC-PF-236

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	4.1.3	I.D.: 4.6 mm		
	4.2 Mobile Phase			
	4.2.1	Iso-octane and 1,4 Dioxane (90 : 10)		
	4.2.2	Flow Rate: 2.0 ml/min		
	4.3 Detector:	UV		
	4.4 Wave Length:	254 nm		
	4.5 Injection Volume:	20 µl		
5.	**Result**			
	Sample Chromatogram no.			
	Standard Chromatogram no.			

6. Calculation:

Triazophos content, % by mass = $\frac{A_2 \times M_1}{A_1 \times M_2} \times P$	**Where,** M_1 =Mass in 'g' of Triazophos standard M_2 = Mass in 'g' of sample taken for test A_1 = Peak area of Triazophos in the standard solution A_2 = Peak area of Triazophos in the sample solution P = Percent purity of Triazophos in the standard

Result:

Sl. No.	Name of test	Result	Unit	Method of Analysis
1.	Active ingredient		%	IS 14936 : 2001 (Reaffirmed 2007)
Remark / Reference :				

Analyzed by	Name	
	Dated signature	
Checked by	Name	
	Dated signature	

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