Name of the laboratory

Sr. No. in Scope NABL / NON NABL

I-B: Flow chart for analysis of ---------- AI 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 Mobile Phase**		
3.1.1	Mix ---------- and -------- in the proportion of ----:---- (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 to attain room temperature & degas		
3.2	**Preparation of Internal Standard Solution**		
3.2.1	Weigh ---- g of -----Internal Standard in ---- ml volumetric flask.	g	
3.2.2	*Note the serial No. of the balance log book*		
3.2.3	Add to it -- ml of mobile phase (3.1.4) or suitable solvent		
3.2.4	Keep it for 30 minute with intermittent shaking		
3.2.5	Make up to the mark with mobile phase (3.1.4)		
3.3	**Preparation of Standard Solution**		
3.3.1	Note the purity of the standard	%	
3.3.2	Weigh ---- g A.I. of standard in ---- ml volumetric flask	g	
3.3.3	*Note the serial No. of the balance log book*		
3.3.4	Add to it --- ml of mobile phase (3.1.4) or suitable solvent		
3.3.5	Keep it for 30 minute with intermittent shaking		
3.3.6	Make up to the mark with mobile phase (3.1.4)		
3.3.7	Pipette out--- ml of solution (3.3.6) to a --- ml volumetric flask if required	ml	
3.3.8	Make up to the mark with mobile phase (3.1.4) or suitable solvent		
3.3.9	Pipette out --- ml of solution (3.3.8) to a --- ml volumetric flask	ml	
3.3.10	Add --ml of internal standard solution (3.2.5)	ml	

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3.3.11	make up to the mark with mobile phase (3.1.4)		
3.4	**Preparation of Sample**		
3.4.1	Note the percent active ingredient content declared on sample	%	
3.4.2	Weigh -- g A.I. of sample in --- ml volumetric flask	g	
3.4.3	*Note the serial No. of the balance log book*		
3.4.4	Add to it --- ml of mobile phase (3.1.4)		
3.4.5	Keep it for 30 minute with intermittent shaking		
3.4.6	Male up to the mark with mobile phase (3.1.4)		
3.4.7	Pipette out --- ml of solution (3.4.6) to a --- ml volumetric flask	ml	
3.4.8	Make up to the mark with mobile phase (3.1.4)		
3.4.9	Pipette out --ml of solution (3.4.8) to a -- ml volumetric flask	ml	
3.4.10	Add --ml of internal standard solution (3.2.5)	ml	
3.4.11	Make up to the mark with mobile phase (3.1.4)		
4.	**HPLC Parameters**		
4.1	**Column**		
4.1.1	Stainless Steel Packed with ----- Stationary phase		
4.1.2	Length: ------ mm		
4.1.3	I.D.: -------mm		
4.2	**Mobile Phase**		
4.2.1	--------- : ------- (-- : --)		
4.2.2	Flow Rate: ----- ml/min		
4.3	**Detector:** UV		
4.4	**Wave Length**: ---- nm		
4.5	**Injection Volume:** **----** µl		
5.	**Result**		
	Sample chromatogram no.		
	Standard chromatogram no.		

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6. Calculation:

$$\text{Imidacloprid content, \% by mass} = \frac{A_2 \times A_3 \times M_1}{A_1 \times A_4 \times M_2} \times P$$

Where,

M_1 = Mass in 'g' of ---- Pesticide standard
M_2 = Mass in 'g' of sample taken for test
A_1 = Peak area of Pesticide AI _____ in the standard solution
A_2 = Peak area of Pesticide AI _____ in the sample solution
A_3 = Peak area of internal standard in the standard solution
A_4 = Peak area of internal standard in the sample solution
P = Percent purity of Pesticide AI _____ in the standard

Result:

Sl. No.	Name of test	Result	Unit	Method of Analysis
1.	Active ingredient		%	Method refernce)
Remark / Reference :				

Analyzed by	Name	
	Dated signature	
Checked by	Name	
	Dated signature	