



**PRODUCT MANUAL  
FOR PESTICIDE – BIFENTHRIN WETTABLE POWDER  
ACCORDING TO IS 15939 : 2011**

This Product manual shall be used as reference material by all regional/Brach Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme – I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

<b>1.</b>	<b>Product</b>	:	IS 15939 : 2011
	<b>Title</b>	:	Pesticide – Bifenthrin Wettable Powder
	<b>No. of Amendments</b>	:	Nil
<b>2.</b>	<b>Sampling Guidelines:</b>		
a)	<b>Raw material</b>	:	Bifenthrin technical employed in the formulation of Bifenthrin WP shall conform to IS 15936.
b)	<b>Grouping guidelines</b>	:	NA (No varieties for the product mentioned in IS)
c)	<b>Sample Size</b>	:	500 g
<b>3.</b>	<b>List of test equipment</b>	:	Please refer Annex A
<b>4.</b>	<b>Scheme of Inspection and Testing</b>	:	Please refer Annex B
<b>5.</b>	<b>Possible tests in a day</b> :		
	i) Description ii) Bifenthrin content iii) Sieve test iv) Wettability v) pH of 5 percent suspension vi) Alkalinity vii) Suspensibility		
<b>6.</b>	<b>Scope of the licence</b> :		
	Licence is granted to use Standard Mark as per IS 15939 : 2011 with the following scope		
	Name of the product	:	Bifenthrin (10%) WP

**ANNEX - A**  
**TO PRODUCT MANUAL**  
**FOR PESTICIDE – BIFENTHRIN WETTABLE POWDER**  
**ACCORDING TO IS 15939 : 2011**

**LIST OF TEST EQUIPMENT**

*Major test equipment required to test as per the Indian Standard*

S.No	Test used in with clause reference	Test equipment
1.	Bifenthrin Content (Clause 3.3, Table 1, (i))	Gas chromatography with flame ionization detector (GLC-FID), Microliter syringe- 5/10 µl, Injection volume-1 µl, Acetone, Internal standard-Docosane AR grade, Bifenthrin Reference Standard — of known purity, Analytical balance, Volumetric flasks,
2.	Sieve test (Clause 3.3, Table 1, (ii))	Test sieve as per IS 460 (Part 1), <i>Beaker</i> of 6.0 to 6.5 cm and 250 ml capacity, Pressure assembly, Rubber hose, wide mouth bottle with cork or rubber stopper, 4 to 6 mm diameter glass rod, Gooch crucible, Beakers, weighing balance, Oven, Brush, Weighing Dish.
3.	Wettability (Clause 3.3, Table 1, (iii))	Standard hard water, stop watch, Distilled Water, Volumetric flasks, Weighing Balance Beaker.
4.	pH of 5 percent suspension in distilled water (Clause 3.3, Table 1, (iv))	Analytical balance (0.1 g), pH meter, Buffer tablets of pH 4.0, 7.0 and 9.2, Beaker, Wash bottle, Distilled water,
5.	Alkalinity (Clause 3.3, Table 1, (v))	Analytical balance, litmus paper, Methyl red indicator solution - aqueous, one percent ( m/v), Bromocresol purple indicator solution - one percent (mlv) in ethyl alcohol, Standard hydrochloric acid - 0.05 N, Standard sodium hydroxide solution - 0.05 N, conical flask, water bath.
6.	Suspensibility (Clause 3.3, Table 1, (vi))	Beaker, Pressure assembly, Graduated cylinder of 250 ml capacity with a ground glass stopper, Glass tube about 40 cm long, standard hard water, glass rod (4-6 mm dia), water bath.

*The above list is indicative only and may not be treated as exhaustive.*

## ANNEX - B

### SCHEME OF INSPECTION AND TESTING PESTICIDES – BIFENTHRIN WP ACCORDING TO IS 15939 : 2011

**1. LABORATORY** - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

**1.1** The manufacturer shall prepare a calibration plan for the test equipments.

**2. TEST RECORD** - The manufacturer shall maintain test records for the tests carried out to establish conformity.

**3. PACKING AND MARKING** – The Standard Mark, as given in the Schedule of the licence, shall be stencilled/printed on each container of Bifenthrin WP or printed on the label applied to it, as the case may be, provided always that the material in each container to which this mark is thus applied, conform to every requirement of the specification.

**3.1** Packing and marking shall be done as per the provision of the Indian Standard. In addition, the following details shall be mentioned on each container legibly and indelibly:

a) BIS Licence No. CM/L\_\_\_\_\_.

b) BIS website details i.e – “For details of BIS certification please visit [www.bis.gov.in](http://www.bis.gov.in)”.

**4. CONTROL UNIT** – For the purpose of this scheme, the quantity of Bifenthrin WP mixed in a mixer at a time from the same consignment of raw materials shall constitute a control unit.

**5. LEVELS OF CONTROL** - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

**5.1** All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

**6. Raw Material** - Bifenthrin Technical, used in the manufactured of Bifenthrin WP shall conform to IS 15936. A test certificate to that effect shall be obtained from the supplier for each consignment of Bifenthrin technical received. Alternatively, a sample form each consignment of material received shall be tested for its conformity to IS 15936 or ISI marked Bifenthrin technical may be used.

**7. REJECTIONS** – Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

**TABLE 1**  
**LEVELS OF CONTROL**

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Clause	Requirement	Test Method Cl. Ref.	Test Method IS		No. of Sample	Frequency	Remarks
3.2	Description	3.2	IS 15939	R	One	Each control unit	
3.3 & Table 1	Bifenthrin content	Annex A	IS 15936	R	One	Each control unit	
3.3 & Table 1	Sieve test	11.1	IS 6940	R	One	Each control unit	
3.3 & Table 1	Wettability	11.4	IS 6940	R	One	Each control unit	
3.3 & Table 1	pH of 5 percent suspension	Annex A	IS 15939	R	One	Each control unit	
3.3 & Table 1	Alkalinity	11.3	IS 6940	R	One	Each control unit	
3.3 & Table 1	Suspensibility	11.2	IS 6940	R	One	Each control unit	

Note-1: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.

Note-2: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Subcontracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.