



**PRODUCT MANUAL FOR
ALPHACYPERMETHRIN, WP
ACCORDING TO IS 15603 : 2005**

This Product Manual shall be used as reference material by all Regional/Branch 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.

1.	Product	:	IS 15603 : 2005
	Title	:	Alphacypermethrin, WP
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	Alphacypermethrin, technical employed in the formulation of Alphacypermethrin, WP shall conform to IS 15616.
b)	Grouping guidelines	:	NA (No varieties for the product mentioned in IS)
c)	Sample Size	:	500 g
3.	List of Test Equipment	:	Please refer ANNEX –A
4.	Scheme of Inspection and Testing	:	Please refer ANNEX –B
5.	Possible tests in a day :		
	i. Description ii. Sieving requirement iii. Suspensibility iv. Wettability v. Alphacypermethrin content vi. Acidity or Alkalinity		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 15603 : 2005 with the following scope:		
	Name of the product	:	Alphacypermethrin (5%) WP

ANNEX – A
TO PRODUCT MANUAL
FOR ALPHACYPERMETHRIN, WP
ACCORDING TO IS 15603 : 2005

LIST OF TEST EQUIPMENT

Major test equipment required to test as per the Indian Standard

Sl. No.	Test Equipment	Tests used in with Clause Reference
1.	Glass Beaker, Tap water	Description Clause 3.2.1
2.	<i>Beaker of 6.0 to 6.5 cm and 250 ml capacity, Pressure assembly, Rubber hose-of about 10 mm internal diameter, Wide mouth bottle with cork or rubber stopper, 4 to 6 mm diameter glass rod, Gooch crucible, Beakers, Camel hair brush or a feather, Weighing Dish, Analytical Weighing Balance (LC- 0.001g), Hot Air Oven capable of maintaining 54±1°C, LC 1°C, IS Sieve (75 micron), tap water.</i>	Sieving requirement Clause 3.2.2
3.	Analytical Balance (LC - 0.001g), Vacuum pump, Volumetric flask-100 ml, pipette, disc filter, Standard hard water, Graduated Cylinder – of capacity 250 ml with a ground glass stopper (The distance between 0 and 250-ml marks shall be 21.0 ± 0.5 cm with a clearance of 6.0 to 8.0 cm between 250-ml mark and the neck of the cylinder. Glass tube (About 40 cm long, of an internal diameter of about 5 mm, Beaker - of 6.0 to 6.5 cm and 250 ml capacity, Water bath (capable of maintaining the temperature 30 ± 1°C, Table / bench free from vibration, Thermally insulating gloves, Suitable arrangement to maintain the temperature of contents at 30 ± 1°C during the operation.	Suspensibility test Clause 3.2.3
4.	Analytical Balance, Stop watch, Beaker - of 6.0 to 6.5 cm and 250 ml capacity, Standard hard water.	Wettability Clause 3.2.4
5.	High Performance Liquid Chromatograph (HPLC) equipped with UV detector & SS column (5-micron, 250 x 4.6 mm), Standard volumetric flasks – capacity 100 ml, Bulb pipettes – 10 ml capacity, Internal Standard – Benzyl benzoate, Alphacypermethrin Ref. Std – of known purity, Di-isopropyl ether - HPLC / Spectroscopic grade, n-Pentane - HPLC / Spectroscopic grade, Toluene- AR grade, Analytical balance.	Alphacypermethrin content Clause 3.3.1, Annex A of IS 15616

6.	Quantitative test: Analytical Balance (Least count 0.1g) Heating mental / hot plate Test tube, Conical flask, Litmus paper, Sodium hydroxide- 0.05 N, Hydrochloric Acid – 0.05 N Methyl red indicator solution, Bromocresol purple indicator. Electrometric procedure: Methyl alcohol-distilled, Sodium hydroxide- 0.05 N, Hydrochloric Acid – 0.05 N, Acetone, Buffer-solution, pH meter, Analytical balance ((LC 0.1g), Stirring rod, Buchber funnel, filter flask/Conical flask.	Acidity or Alkalinity Clause 3.3.4
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The above list is indicative only and may not be treated as exhaustive.

ANNEX - B

**SCHEME OF INSPECTION AND TESTING
FOR ALPHACYPERMETHRIN, WP
ACCORDING TO IS 15603 : 2005**

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 RECORDS – 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 the container of Alphacypermethrin, WP, or printed on the label applied to it, as the case may be, provided always that the material 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”.

4. CONTROL UNIT – For the purpose of this scheme, entire quantity of the material mixed in a mixer at a time 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.

5.2 On the basis of tests and analysis reports, the decision regarding conformity or otherwise of the control unit to a given requirement shall be made as follows:

5.2.1 The sample taken for test from the control unit shall satisfy all the requirements of the specification. If the sample fails in any of the requirements tested other than Alphacypermethrin content, the entire control unit represented by the sample shall be considered as unfit for the purpose of marking.

5.2.2 In case the sample taken from the control unit fails in Alphacypermethrin Content, but passes in other requirements the entire quantity of the material may be suitably reprocessed and the defect rectified. Such reprocessed material, when tested again shall satisfy all the requirements of specification before it is marked.

6. RAW MATERIAL – The Alphacypermethrin technical used in the manufacture of Alphacypermethrin WP shall conform to IS 15616. A test certificate to that effect shall be obtained from the supplier for each consignment of Alphacypermethrin technical received. Alternatively, a sample from each consignment of the material received shall be tested for its conformity to IS 15616 or ISI marked Alphacypermethrin 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		
Cl.	Requirement	Test Methods Cl. Ref.	Test method IS		No. of Sample	Frequency	Remarks
3.2.1	Description	3.2.1	IS 15603	R	One	Each control unit	See clause 5 of STI
3.2.2	Sieving Requirements	11.1	IS 6940	R	One	Each control unit	
3.2.3	Suspensibility Test	Annex A	IS 15603	R	One	Each control unit	
3.2.4	Wettability	11.4	IS 6940	R	One	Each control unit	
3.3.1	Alphacypermethrin content	Annex A	IS 15616	R	One	Each control unit	
3.3.2	Acidity or Alkalinity	11.3	IS 6940	R	One	Each control unit	

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-2: 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.