



**PRODUCT MANUAL
FOR PESTICIDE - DIFLUBENZURON WP
ACCORDING TO IS 14186 : 1994**

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 14186 : 1994
	Title	:	Pesticide - Diflubenzuron WP
	No. of Amendments	:	01
2.	Sampling Guidelines:		
a)	Raw material	:	Diflubenzuron technical employed in the formulation of Diflubenzuron WP shall conform to IS 14185.
b)	Grouping guidelines	:	NA (No varieties for the product mentioned in IS)
c)	Sample Size	:	500 gm
3.	List of Test Equipment	:	Please refer ANNEX – A.
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – B (applicable for both manufacturers and repackers)
5.	Possible tests in a day :		
	i) Description ii) Sieving iii) Suspensibility iv) Wettability v) Acidity		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 14186 : 1994 with the following scope:		
	Name of the product	Diflubenzuron (25 %) WP / Repacked Diflubenzuron Wettable Powder.	

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ANNEX – A

TO PRODUCT MANUAL
FOR PESTICIDE - DIFLUBENZURON WP
ACCORDING TO IS 14186 : 1994

LIST OF TEST EQUIPMENTS

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests used in with Clause Reference	Test Equipment/Reagents/Chemicals
1.	Diflubenzuron Content Cl 3.3.1 (Annex A of IS 14185)	HPLC Apparatus, Micro syringe – 25 µl capacity, Sintered Glass Crucible, Reference Standard Diflubenzuron of known purity, Dibutyl phthalate, Dioxane- HPLC grade, Methanol- HPLC grade, Water-Glass redistilled, Analytical Balance (0-200 gm, LC -0.01 mg), Steam bath, Beakers, Pipette, Volumetric flask.
2.	Sieving Cl 3.3 & Table 1 (Cl 11.1 of IS 6940)	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, tap water, 75 micron IS sieve.
3.	Suspensibility Cl 3.3 & Table 1 (Annex A of IS 14186)	Beaker, Pressure Assembly, Graduated cylinder, Glass Tube, Standard Hard Water, Glass Rod, Air conditioner, Stop watch, Petri dish, Hot Air oven (capable of operating at 90°C), Dioxane, Analytical balance (0-200 gm, LC-0.01 mg).
4.	Wettability Cl 3.3 & Table 1 (Cl 11. of IS 6940)	Analytical Balance, Stop watch, Beaker - of 6.0 to 6.5 cm and 250 ml capacity, Standard hard water, Stop watch.
5.	Acidity Cl 3.3 & Table 1 (Cl 11.3 of IS 6940)	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, Buchner funnel, filter flask/Conical flask.

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

ANNEX – B

**SCHEME OF INSPECTION AND TESTING
FOR PESTICIDE - DIFLUBENZURON WP
ACCORDING TO IS 14186 : 1994**

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 equipment.

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 Schedule of the licence shall be stenciled/printed on each container of Diflubenzuron WP or printed on the labels applied to the container, as the case may be, provided always that the material in each container to which this mark is thus applied conforms to every requirement of the specification.

3.1 Packing: Material shall be packed as per clause 4 of IS 14186. The material shall be repacked as per requirements given in IS 8190 (Part 1), Requirements for packing of pesticides part 1 Solid pesticides.

3.2 Marking: The information as mentioned under clause 5 of IS 14186 shall be marked legibly and indelibly on each container. 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”.
- c) The minimum cautionary notice as worded in Insecticides Act, 1968 and Rules.
- d) Name and BIS licence number of original manufacturer of Diflubenzuron WP shall also be mentioned in case of repacking unit.

3.3 When bags (above 10 kg) are used for packing the material, the pictorial marking for “USE NO HOOKS”, as contained in IS 1260 (Part 1) pictorial markings for handling and labeling of goods, Part General Goods shall be marked on each bag.

4. CONTROL UNIT – For the purpose of this Scheme, any one of the following, as applicable, shall constitute a control unit:

- a) **Repacker:** The entire quantity of material packed from a single batch received with Standard Mark.
- b) **Batch Process:** The entire quantity of the material finally blended in a blender at a time in one operation.

- c) **Continuous Process:** Every 100 containers of 50 kg each, of the material or part thereof, manufactured continuously, not exceeding a day's production.

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 Standard and covered by the licence should be marked with Standard Mark.

5.2 On the basis of tests and analysis results, the decision regarding conformity or otherwise of a control unit shall be taken as follows:

5.2.1 A sample shall be drawn from each control unit and tested for all the requirements of the specification. If a sample fails in respect of Diflubenzuron content and/or sieving requirements, the control unit shall be suitably reprocessed and the defects rectified. Such reprocessed material, when tested again, shall satisfy the requirement of Diflubenzuron content and/or sieving, as the case may be, before it is used for making.

5.2.2 In case the sample fails in any requirements other than Diflubenzuron content and/or sieving requirement, the control unit shall be considered unfit for the purpose of marking.

5.3 The repacker shall maintain details of the repacked material in format under table 2.

6. RAW MATERIALS: Diflubenzuron technical used in the formulation of Diflubenzuron WP shall conform to IS 14185. A test certificate to that effect shall be obtained from the supplier for each consignment of Diflubenzuron technical received. Alternatively, a sample from each consignment shall be tested for its conformity to the Indian Standard mentioned above and a record maintained. However, no testing or test certificate may be required if the material is ISI marked.

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
3.1.2	Constituents	3.1.2	IS 14185	S	One	Each Control Unit	See clause 6 of SIT
3.2	Description	3.2	IS 14186	R	One Two for Repacker	-do-	See clause 5 of SIT
3.3	Diflubenzuron Content	Annex A	IS 14185	R	Five for CP One for BP Two for Repacker	-do-	
3.3	Material passing through 44 micron IS sieve	11.1	IS 6940	R	Two for CP and Repacker One for BP	-do-	
3.3	Suspensibility	Annex A	IS 14186	R	Five for CP One for BP Two for Repacker	-do-	
3.3	Wettability	11.4	IS 6940	R	Two for CP and Repacker One for BP	-do-	
3.3	Acidity	11.3.2	IS 6940	R	One composite sample for CP* One for BP and Two for Repacker	-do-	

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 empaneled 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.

Note-3: *A composite sample shall be prepared by mixing together the samples drawn from the control unit.

TABLE 2
Record to be maintained by Repacker of Diflubenzuron WP
According to IS 14186 : 1994

Name of the manufacturer	Particulars of the test reports received with C.U/Batch No	Bate of manufacture	Quantity received	Date of receipt	Date of repacking	Batch No.	Details of repacking		Total quantity	Details of dispatch
							Size	No.		
1	2	3	4	5	6	7	8	9	10	11