# उत्पाद मानुयल

## HEXACONAZOLE + ZINEB, WETTABLE POWDER (WP)
## IS 16920 : 2018 के अनुसार

## PRODUCT MANUAL
## FOR HEXACONAZOLE + ZINEB, WETTABLE POWDER (WP)
## ACCORDING TO IS 16920 : 2018

**भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम की स्कीम-I के तहत यह उत्पाद मानुयल प्रमाणीकरण के प्रचलन मे रीति और पारदर्शिता के सुसंगता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेन्स धारियों द्वारा संदर्भ सामग्री के रूप मे उपयोग किया जाएगा। बीआईएस लाइसेन्स/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है।**

***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. | **उत्पाद**<br>**Product** | : | IS 16920 : 2018 |
| | **शीर्षक**<br>**Title** | : | हैकसाकोनाजोल + जाइनेब, आर्द्रकरणीय पाउडर (डबलु पी)<br>Hexaconazole + Zineb, Wettable Powder (WP) |
| | **संशोधन संख्या**<br>**No. of Amendments** | : | Nil |
| 2. | **नमुनाकरण दिशा निर्देश**<br>**Sampling Guidelines:** | | |
| a) | **कच्चा माल**<br>**Raw material** | : | Hexaconazole technical shall conform to IS 14549 and Zineb technical employed in the manufacture of the material shall conform to IS 3898. Each lot shall be accompanied with test certificate from manufacturer or a sample shall be tested in house/ independent lab. |
| b) | **समूहिकरण दिशा निर्देश**<br>**Grouping guidelines** | : | NA (No varieties for the product mentioned in IS) |
| c) | **नमूने का परिमाण** | : | 500 gm |

| | | | |
|---|---|---|---|
| | **Sample Size** | | |
| 3. | **परीक्षण उपकरणो की सूची**<br>**List of Test Equipment** | : | कृपया Annex-A देखें<br>Please refer ANNEX – A |
| 4. | **निरीक्षण व परीक्षण स्कीम**<br>**Scheme of Inspection and Testing** | : | कृपया Annex-B देखें<br>Please refer ANNEX – B |
| 5. | **एक दिन में संभावित परीक्षण**<br>**Possible tests in a day:** | | |
| | i. Physical Test (Description) – Cl 3.2.1<br>ii. Sieving requirement –Cl. 3.2.2<br>iii. Suspensibility – Cl. 3.2.3<br>iv. Wettability- Cl 3.2.4<br>v. Acidity or Alkalinity- Cl 3.3.2<br>vi. Determination of Hexaconazole content and Zineb content - Cl 3.3.1 | | |
| 6. | **लाइसेन्स का कार्यक्षेत्र/ Scope of the Licence:** | | |
| | IS 16920 : 2018 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेन्स निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है<br>"Licence is granted to use Standard Mark as per IS 16920 : 2018 with the following scope: | | |
| | **उत्पाद का नाम**<br>**Name of the product** | | Hexaconaxole….. % + Zineb…..%, Wettable Powder (WP) |

## ANNEX A

## TO PRODUCT MANUAL FOR HEXACONAZOLE + ZINEB, WETTABLE POWDER (WP) ACCORDING TO IS 16920:2018

## LIST OF TEST EQUIPMENT

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

| Sl. No. | Tests used in with Clause Reference | Test Equipment |
|---|---|---|
| 1. | Sieving Requirement<br>Cl. 3.2.2 | 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 0C, LC 10C, tap water, 45 micron IS sieve. |
| 2. | Suspensibility<br>Cl. 3.2.3 | Beaker of 6·0 to 6.5 cm and 250 ml capacity, Pressure Assembly, Vacuum pump, Graduated Cylinder of capacity 250 ml with a ground glass stopper, Glass Tube, Calcium Chloride anhydrous, Magnesium Chloride Hexahydrate, Analytical Balance, Water bath, Glass rod. |
| 3. | Wettability<br>Cl. 3.2.4 | Beaker of 6·0 to 6.5 cm and 250 ml capacity, Weighing Balance, Calcium Chloride anhydrous, Magnesium Chloride Hexahydrate, Stop watch. |
| 4. | Determination of Hexaconazole Content<br>Cl. 3.3.1 (Annex A) | Gas Liquid Chromatograph, equipped with flame ionization detector coupled to chromatography software and, printer is used.<br>Analytical Balance, Microlitre Syringe- 10µl capacity, Ultrasonic Bath, Standard Glassware, Chloroform- AR grade, Internal Standard, Dioctyl Phthalate — AR grade, or equivalent, Standard Hexaconazole. |
| 5. | Determination of Zineb Content<br>Cl. 3.3.1 (Annex B) | Zineb Determination Assembly- As per IS 3898 and consists of a 200 ml flask fitted with condenser with outlet tube connected to two absorbers and a 500 ml filter flask serving as a bubbler. The latter in turn is connected to a source of mild suction. |

| | | |
|---|---|---|
| | | Glass Vial- 15mm x 25mm, Glasswares, Lead Acetate Solution- 10 percent (m/v), Sulphuric Acid- 1.1N, Solution of Potassium Hydroxide in Methanol- 2N, Dilute Acetic Acid- 30 percent (v/v), Standard Iodine Solution- 0.1N, Starch Indicator Solution- Freshly prepared, Phenolphthalein Indicator Solution- 1 percent (m/v) in 95% ethyl alcohol. |
| 6 | Acidity or Alkalinity<br>Cl. 3.3.2 | **Quantitative test:**<br><br>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.<br><br>**Electrometric procedure:**<br><br>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**
**TO PRODUCT MANUAL FOR HEXACONAZOLE + ZINEB, WETTABLE POWDER (WP) ACCORDING TO IS 16920:2018**

**SCHEME OF INSPECTION AND TESTING**

**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. PACKAGING AND MARKING** – The Standard Mark, as given in the Schedule of the licence, shall be printed/stencilled on each container of Hexaconazole + Zineb, Wettable Powder (WP), provided always that the product so marked conform to every requirement of the specification.

**3.1 PACKING -** The material shall be packed in trilaminated pouches comprising of PET/aluminium foil/LDPE. The pouches shall be heat sealed to make it leak proof and pilfer proof. The trilaminated pouches up to 1 kg capacity shall be inserted in duplex board up to 250 g mass and 3 ply CFB E — flute carton for 500 g and 1 Kg as secondary pack. All types of containers shall further be packed in corrugated fiberboard boxes as per IS 2771 (Part 1). The container shall also comply with the general requirements specified in IS 8190 (Part 1).

**3.2 MARKING –** The container shall bear legibly and indelibly the information provided under clause 5.1 of IS 16920. In addition, the following details shall be mentioned on each container:
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, the entire quantity of Hexaconazole + Zineb, Wettable Powder (WP) taken from the same consignment of raw materials, finally blended in a blender at a time in one operation shall constitute one 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 -** Hexaconazole technical and, zineb technical employed in the manufacture of the material shall conform to IS 14549 and IS 3898. A test certificate to that effect shall be obtained

from the supplier for each consignment of Hexaconazole technical and, zineb 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 Method Cl.Ref.** | **Test Method IS** | | **No. of Sample** | **Frequency** | **Remarks** |
| 3.2.1 | Description | 3.2.1 | IS 16920 | R | One | Each Control Unit | |
| 3.2.2 | Sieving Requirement | 11.1 | IS 6940 | R | One | Each Control Unit | |
| 3.2.3 | Suspensibility | 11.2 | IS 6940 | R | One | Each Control Unit | |
| 3.2.4 | Wettability | 11.4 | IS 6940 | R | One | Each Control Unit | |
| 3.3.1 | Hexaconazole Content | Annex A | IS 16920 | R | Two | Each Control Unit | |
| | Zineb Content | Annex B | IS 16920 | R | Two | 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 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.