PRODUCT MANUAL
FOR CAPTAN WETTABLE POWDER
ACCORDING TO IS 11785 : 1986

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 11785 : 1986
	Title	:	Captan Wettable Powder
	No. of Amendments	:	03
2.	**Sampling Guidelines:**		
a)	**Raw material**	:	Captan technical employed in the formulation of Captan Wettable Powder shall conform to IS 14251.
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) Captan content (iii)Suspensibility (iv)Wettability (v) Acidity/Alkalinity		
6.	**Scope of the Licence :**		
	"Licence is granted to use Standard Mark as per IS 11785 : 1986 with the following scope:		
	Name of the product		Captan (50 %) Wettable Powder

ANNEX - A

TO PRODUCT MANUAL
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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.	Captan content Cl 2.3 & Table 1 (Appendix A of IS 11785)	**Gas Liquid Chromatography method (Refree Method):** Gas Liquid chromatograph fitted with flame ionized detector, Injection volume 2µl ,Microlitre syringe 5/10µl capacity, Acetone – AR grade or equivalent, Di-n-butyl phthalate (DBP) AR grade or equivalent, Dichloromethane, Captan reference Standard of known purity, Analytical balance (0-200 gm, LC-0.01 mg), Standard glassware.
2.	Sieveing requirement Cl 2.3 & 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 ^{0}C, LC 1^{0}C, tap water, Test sieve (75 micron IS sieve).
3.	Suspensibility Cl 2.3 & Table 1 (Cl 11.2 of IS 6940)	Beaker (6 to 6.5 cm and 250 ml capacity), Pressure assembly.(25 g/sq cm), Graduated cylinder capacity 250 ml with ground glass stopper, Glass tube , 40 cm long and with an internal diameter of 5 mm, Vacuum pump, Water Bath, Analytical Balance, Calcium Chloride Anhydrous, Magnesium Chloride Hexahydrate, Distilled Water.
4.	Wettability Cl 2.3 & Table 1 (Cl 11.4 of IS 6940)	Analytical Balance, Stop watch, Beaker - of 6·0 to 6.5 cm and 250 ml capacity, Standard hard water.
5.	Acidity /Alkalinity Cl 2.3 & Table 1 (Cl 11.3 of IS 6940)	Acetone, Hotplate, Weighing Balance (0-200 gm, LC-0.01 mg), Titrator / Burette / pipette, Methyl red indicators solution aqueous-one percent, Bromocresol

		purple indicator solution- one percent (m/v) in ethyl alcohol, Standard Sodium Hydroxide solution -0.05N, Standard hydrochloric acid -0.05N, Litmus Paper

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

ANNEX - B

SCHEME OF INSPECTION AND TESTING FOR CAPTAN WETTABLE POWDER ACCORDING TO IS 11785 : 1986

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 stenciled/printed on each container of Captan Wettable Powder 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".

4. CONTROL UNIT –For the purpose of this scheme, the entire quantity of material blended in a mixer in one operation shall constitute a control unit in case of batch process (BP) and Every 100 containers of 50 Kg each of the material or part thereof manufactured continuously, not exceeding a day's production shall constitute a control unit in case of continuous process (CP).

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 test results, decision regarding conformity or otherwise of a control unit to the given requirements shall be made as follows:

5.2.1 A sample shall be drawn from each control unit and tested for all the requirements of the specification. In case the sample fails in any of the requirements, except suspensibility and alkalinity, the material represented by the control unit may be suitably reprocessed and defect (s) rectified. Such reprocessed material shall be tested as per Table 1 and the material shall satisfy all the requirements of the specification.

4.1.2 In case the sample fails in suspensibility and alkalinity, the control unit shall be considered as unfit for the purpose of marking.

6. RAW MATERIAL – Captan technical used in the formulation of Captan Wettable Powder shall confirm to IS 14251. A test certificate to that effect shall be obtained from the supplier for each consignment of Captan 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**
2.1	Description	2.1 Visual	IS 11785	R	One	Each Control unit	
2.3 & Table 1	Captan content	Appendix A	IS 11785	R	Five	-do-	
-do-	Sieving requirement	11.1	IS 6940	R	Two	-do-	
-do-	Suspensibility	11.2	IS 6940	R	Five	-do-	
-do-	Wettability	11.4	IS 6940	R	Five	-do-	
-do-	Acidity/Alkalinity	11.3.2/ 11.3.3	IS 6940	R	One composite sample	-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 at regular intervals from the control unit.