PRODUCT MANUAL
FOR
PESTICIDE - CARTAP HYDROCHLORIDE G
ACCORDING TO IS 14184:1994

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 14184 : 1994
	Title	:	Pesticide - Cartap Hydrochloride G- Specification
	No. of Amendments	:	02
2.	**Sampling Guidelines:**		
a)	**Raw material**	:	Cartap Hydrochloride technical employed in the formulation of Cartap Hydrochloride G shall conform to IS 14159.
b)	**Grouping guidelines**	:	NA (No varieties for the product mention 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) Particle Size (iii) Dust (iv) pH (v) Moisture content (vi) Cartap Hydrochloride content		
6.	**Scope of the Licence :**		
	"Licence is granted to use Standard Mark as per IS 14184 : 1994 with the following scope:		
	Name of the product	Cartap Hydrochloride G	

ANNEX-A
TO PRODUCT MANUAL
FOR PESTICIDE - CARTAP HYDROCHLORIDE G
ACCORDING TO IS 14184:1994

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	Particle Size (Cl. 3.2.2)	Test Sieves as per IS 460 (part 1), Ro-tap/similar machine, Weighing balance, small square rubber cubes, brush, weighing dish.
3	Dust (Cl. 3.2.3)	75 micron IS sieve, Ro-tap/similar machine, Weighing balance, Other requirements same for cartap hydrochloride content test.
4	Moisture Content (Cl. 3.2.4)	**Karl Fischer Method** Karl Fisher instrument with automatic burette and titration flask, Weighing balance with LC 0.1 mg, Drying Oven, Desiccator, Thermometer, Ice-bath, Methanol, 2-methoxy ethanol, Karl Fischer Reagent, Iodine, Pyridine, Sulphur Dioxide, Sodium tartrate crystalline, Aluminium Sodium Silicate/ Activated silica gel, Silicone base grease. **Dean and Stark Method** Dean and stark apparatus consisting of distillation flak, reflux condenser and receiver, Heat Source, Copper Wire, Chromic acid cleaning solution, Petroleum naphtha/n-Heptane/Toluene as solvent, Weighing balance.
5	Cartap Hydrochloride Content (Cl. 3.3.1)	**Spectrophotometric Method;** Spectrophotometer, Mechanical Shaker, Cartap Hydrochloride reference standard of known purity, 5,5-dithiobis [2-nitrobenzoic acid (DTNB)], Phosphoric acid- 0.5 M, Boric acid- 0.5 M, Acetic acid- 0.5 M, Sodium hydroxide- 0.2 N, Buffer solution of pH

		9.0 (mixture of phosphoric acid + boric acid + acetic acid in distilled water + Sodium hydroxide) **Iodimetric Method;** Potassium hydroxide solution- 1N, Sulphuric acid- 5 N, Starch Reagent, Standard Iodine solution, Potassium Iodide solution- 40 % (m/v), Disodium or tetrasodium salt of EDTA solution- 0.01 M, Methanol- 20 % (v/v), Dilute Hydrochloric acid, Erlenmeyer Flask, Titration Glassware.
6	pH of 1 % aq. Extract (Cl. 3.3.2)	Buffer Solution (Acetic acid + Sodium hydroxide + demineralized water), Acetone, pH meter, Conical flask, Buchner funnel & Filter Flask, Sodium hydroxide - 0.05 N, Hydrochloric acid - 0.05 N .

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

ANNEX -B
SCHEME OF INSPECTION AND TESTING

FOR CARTAP HYDROCHLORIDE G
ACCORDING TO IS 14184:1994

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 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 Cartap Hydrochloride G 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, **t**he entire quantity of material blended and coated in a blender at a time in one operation 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. 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

(1)				(2)	(3)		
Test Details				**Test equipment requirement R: required (or) S: Sub-contracting permitted**	**Levels of Control**		
Cl.	**Requirement**	**Test Method**			**No. of Sample**	**Frequency**	**Remarks**
		Clause	**Reference**				
3.1	Constituents	3.1.1 & 3.1.2	IS 14184 & IS 14159	S	One	Each consignment	Alternately, each consignment shall be accompanied by a test certificate from the supplier or a BIS recognized lab guaranteeing its conformity to IS 14159 or shall be BIS certified product.
3.2.1	Description	3.2.1	IS 14184	R	One	Each Control Unit	
3.2.2	Particle Size	12.1	IS 6940	R	One	-do-	
3.2.3	Dust i) Sieving	12.1	IS 6940	R	One	-do-	
	ii) AI in retained mass	Annex A	IS 14159	R	One	-do-	
3.2.4	Moisture Content	4	IS 6940	R	One	-do-	
3.3.1	Cartap Hydrochloride Content	Annex A	IS 14159	R	One	-do-	
3.3.2	pH of 1 % aq. Extract	13.5.4.2	IS 6940	R	One	-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 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.