PRODUCT MANUAL
FOR IMIDACLOPRID SL ACCORDING TO IS 15335 : 2003

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 15335 : 2003
	Title	:	Imidacloprid SL - Specification
	No. of Amendments	:	01
2.	**Sampling Guidelines:**		
a)	**Raw material**	:	Imidacloprid technical employed in the formulation of Imidacloprid SL shall conform to IS 15443.
b)	**Grouping guidelines**	:	NA (No varieties for the product mentioned in IS)
c)	**Sample Size**	:	500 ml
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. lmidacloprid content iii. Cold Test iv. Acidity/ Alkalinity v. Flash Point		
6.	**Scope of the Licence :**		
	"Licence is granted to use Standard Mark as per IS 15335 : 2003 with the following scope:		
	Name of the product	Imidacloprid (17.8 %) SL	

ANNEX – A

TO PRODUCT MANUAL
FOR IMIDACLOPRID SL ACCORDING TO IS 15335 : 2003

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.	Description Cl 3.2.1	Tap water, Glass beaker
2.	lmidacloprid content Cl 3.3.1 (Annex A of IS 15443)	High performance liquid chromatograph (HPLC) equipped with UV-VIS detector and coupled to a printer-plotter-cum-integrator. The operative conditions suggested below are typical, which can be changed provided the standardization is done: Column : 150 mm x 3.9 mm, SS, packed with Novapak – C 18 Detector : UV (278 nm) Solvent system : Acetonitrile :Water (80 :20 vh) Solvent flow rate : l.0 ml/min Temperature : Ambient Sample size : 20 µl Micro Syringe — 5/25 µl Glassware — Volumetric flask 100 ml; pipettle 10 ml. 20 ml; microsyringe 20 ml, Milipore filtration assembly Acetonitrile — HPLC grade or equivalent, Water — HPLC grade or equivalent, Internal Standard — Acenaphthene AR grade or equivalent, Reference Imidacloprid Standard of Known Purity, Magnetic Stirrer, Analytical balance, Pippette.
3.	Cold Test Cl 3.2.2 (Cl 13.1 of IS 6940)	Glass Container (100 ml)/Beaker with Cork/stopper fitted thermometer, water bath, Ice-cold water Thermometer (0 - 110°C, L.C. - 0.1 °C), Stirring rod.
4.	Flash Point Cl 3.2.3 {IS 1448 (Part 20)}	Cleaning solvent, Coolant, Lubricant, Verification Liquids, Ignitor and pilot light gas, Flash point apparatus/Abel flash point apparatus consisting of test cup, cover assembly, heating vessel, heating device, flash detector, Stirrer, Thermometers 2 (one for the oil cup of range; - 35°C to +70°C, and another for

		the water bath of the range; -30°C to +80°C), Timing device, Barometer, External cooling bath, Test cup thermal insulating cap, Abel flash point apparatus provided with a stirrer & thermometer, Heating Vessel or bath, Ethylene Glycol.
5.	Acidity Cl 3.3.2 (Cl 13.5.4 of IS 6940)	Methyl red indicator solution-aqueous – 1 % (m/v), Bromocresol purple indicator solution, Standard Sodium Hydroxide Solution – 0.5 N, Standard Hydrochloric acid, Acetone, Distilled water, Analytical Balance Range 0 to 200gms LC 0.1mg, Hot plate, Range ambient to 100^{o}C/ Heating mantle/Water bath, Whatman filter paper, Conical Flask, 250ml Capacity, Graduated Cylinder, Range 0 to 100ml LC-1ml, Test Tube, Litmus paper.

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

ANNEX - B

SCHEME OF INSPECTION AND TESTING FOR IMIDACLOPRID SL ACCORDING TO IS 15335 : 2003

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 Imidacloprid SL 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 Imidacloprid SL mixed in a mixer at a time from the same consignment of raw materials 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 Standard and covered under the scope of this licence should be marked with the Standard Mark.

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

5.1.1 A sample shall be drawn from each control unit and tested for all the requirements of the specification. If the sample fails in any of the requirement tested, other than Imidacloprid content, the entire control unit represented by the sample shall be considered unfit for the purpose of marking.

5.1.2 In case the sample drawn from the control unit fails in the requirement of Imidacloprid content, but passes in other requirements, the entire quantity of the material in the control unit may be suitably reprocessed and the defects rectified. Such reprocessed material when tested again, shall conform to all the requirements of the specification before it is marked.

6. RAW MATERIAL - Imidacloprid technical, used in the manufacture of Imidacloprid SL shall conform to IS 15443. A test certificate to that effect shall be obtained from the supplier for each consignment of Imidacloprid technical received. Alternatively, a sample from each consignment of material received shall be tested for its conformity to IS 15443 or ISI marked Imidacloprid technical may be used.

7. Rejection - 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 15335	R	One	Each Control unit	Please see clause 5 of SIT
3.2.2	Cold Test	13.1	IS 6940	R	One	-do-	
3.2.3	Flash Point	-	IS 1448(P:20)	R	One	-do-	
3.3.1	Imidacloprid Content	Annex-A	IS 15443	R	One	-do-	
3.3.2	Acidity	13.5.4	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.