PRODUCT MANUAL
FOR ATRAZINE WP ACCORDING TO IS 12931 : 1990

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 12931 : 1990
	Title	:	Atrazine WP
	No. of Amendments	:	01
2.	**Sampling Guidelines:**		
a)	**Raw material**	:	Atrazine technical employed in the formulation of Atrazine WP shall conform to IS 12932.
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
5.	**Possible tests in a day:**		
	i. Description ii. Wettability iii. Acidity/Alkalinity iv. Atrazine Content		
6.	**Scope of the Licence:**		
	"Licence is granted to use Standard Mark as per IS 12931 : 1990 with the following scope:		
	Name of the product	Atrazine (50 %) WP	

ANNEX - A
TO PRODUCT MANUAL
FOR ATRAZINE WP ACCORDING TO IS 12931 : 1990

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.	Atrazine Content Cl 3.3.1 (Annex B of IS 12932)	**I. ALKALINE HYDROLYSIS METHOD:** Ethanol, Alcoholic Potassium Hydroxide Solution, Nitric Acid - 1 : 1, Silver Nitrate Solution – 0. 1 N, Standard Potassium Thiocyanate Solution – 0.1 N, Phenolphthalein Indicator Solution – 1% in 96 percent ethanol, Ferric Alum Indicator Solution, Analytical balance (0-200 gm, LC-0.01 mg). **II. HIGH PERFORMANCE LIQUID CHROMATOGRAPHY METHOD:** High Performance Liquid Chromatograph Equipped with a printer-plotter-cum-integrator and ultra-violet (UV) detector, Internal Standard - Diphenyl oxide, AR grade, Methyl Alcohol - Spectroscopic grade, Standard Atrazine - of known purity, Analytical Balance (0-200 gm, LC -0.01 mg).
2.	Sieving requirement, material passing through 75-micron IS sieve 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 ^{0}C, LC 1^{0}C, tap water, 75 micron IS sieve.
3.	Suspensibility Cl 3.3 & Table 1 (Cl 11.2 of IS 6940)	Analytical balance (Least count 0.01mg), Beaker – 100 ml, Standard Hard water, Glass rod – 4-6 mm in diameter, Graduated cylinder with stopper, Water bath capable of operating at 30 $\pm$ 1^{0}C, Vacuum pump, Pressure Assembly.

4.	Wettability Cl 3.3 & 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, Stop watch.
5.	Acidity/Alkalinity 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 ATRAZINE WP ACCORDING TO IS 12931 : 1990

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 Schedule of the licence shall be stenciled/printed on each container of Atrazine 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 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 finally blended in a blender at a time in one operation 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 in case of a continuous process 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.

5.2 On the basis of test and analysis reports decision regarding conformity or otherwise of a control unit for a given requirement shall be made on the following basis:

5.2.1 A sample shall be drawn from the control unit and tested for all the requirements of the specification. If the sample fails in the requirement of Acidity / Alkalinity tested, the entire control unit represented by the sample shall be unfit for the purpose of marking.

5.2.1 In case the sample taken from the control unit fails in the any one or more requirements except Acidity/Alkalinity, the entire quantity of the material in the control unit may be suitably reprocessed and the defect(s) rectified. Such reprocessed material when tested again shall satisfy all the requirements of the specification before it is used for the marking.

6. RAW MATERIAL - Atrazine technical employed in the formulation of Atrazine WP shall conform to IS 12932. A test certificate to that effect shall be obtained from the supplier for each consignment of Atrazine 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	Description	3.2	IS 12931	R	One	Each Control Unit	
3.3 & Table 1	Atrazine Content	Annex B	IS 12932	R	Five	-do-	Samples from the control unit shall be drawn at regular intervals.
-do-	Sieving requirements material passing through 75 micron IS sieve	11.1	IS 6940	R	Two	-do-	-do-
-do-	Suspensibility	11.2	-do-	R	Five	-do-	-do-
-do-	Acidity/Alkalinity	11.3.2& 11.3.3	-do-	R	One Composite sample*	-do-	*Obtained by mixing equal quantities from samples drawn for atrazine content.
-do-	Wettability	11.4	-do-	R	-do-	-do-	-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.