



**PRODUCT MANUAL  
FOR MONOCROTOPHOS SL ACCORDING TO IS 8074 : 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.	<b>Product</b>	:	IS 8074 : 1990
	<b>Title</b>	:	Monocrotophos SL - Specification
	<b>No. of Amendments</b>	:	02
2.	<b>Sampling Guidelines:</b>		
a)	<b>Raw material</b>	:	Monocrotophos, technical, employed in the formulation of Monocrotophos SL shall conform to IS 8025.
b)	<b>Grouping guidelines</b>	:	NA (No varieties for the product mentioned in IS)
c)	<b>Sample Size</b>	:	500 ml
3.	<b>List of Test Equipment</b>	:	Please refer ANNEX – <u>A</u>
4.	<b>Scheme of Inspection and Testing</b>	:	Please refer ANNEX – <u>B</u>
5.	<b>Possible tests in a day:</b>		
	i. Description ii. Cold test iii. Flash Point iv. Free Aceto-Acetic Acid Monomethyl-Amide (MMA) content, v. Acidity		
6.	<b>Scope of the Licence:</b>		
	“Licence is granted to use Standard Mark as per IS 8074 : 1990 with the following scope:		
	Name of the product	:	Monocrotophos (36 %) SL

**ANNEX – A**

**TO PRODUCT MANUAL  
FOR MONOCROTOPHOS SL ACCORDING TO IS 8074 : 1990**

**LIST OF TEST EQUIPMENT**

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

<b>Sr. No.</b>	<b>Test used in with clause reference</b>	<b>Test Equipment</b>
1.	Description Clause 3.2.1	Tap water, Glass beaker
2.	Cold Test Clause 3.2.2 (CI 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.
3..	Flash Point Clause 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.
4.	Monocrotophos content Clause 3.3.1 (Annex B of IS 8025)	Methanol, Standard Sodium Hydroxide solution-5 N, Nitric acid-1 N, Glacial Acetic acid, Acetic acid in methanol solution-5 %, Reference Standard of Aceto-Acetic Monomethylamide of purity not less than 98 %, Analytical balance (0-200 g, LC- 0.01 mg), Ferric Chloride Solution, Phenolphthalein Indicator solution, Sodium nitrate solution, Hydrochloric acid, Standard glass ware, Spectrophotometer capable of reading absorbance at 544nm wavelength, 1cm-cell.
5.	Free Aceto-Acetic Acid Monomethyl-Amide (MMA) content Clause 3.3.2 (Annex C of IS 8025)	Methanol, Standard Sodium Hydroxide-5 N, Nitric acid-1 N, Glacial Acetic acid, Acetic acid in methanol solution 5%, Reference Standard of Aceto-Acetic Monomethylamide 5%, Ferric chloride solution, Phenolphthalein Indicator solution, Sodium nitrate Hydrochloric acid, Analytical balance (0-200 gm, LC-0.01 mg), Standard glass ware, stop watch, Spectrophotometer capable of reading absorbance at 544nm wavelength, 1cm-cell.

6.	Acidity (as H <sub>2</sub> SO <sub>4</sub> ) Clause 3.3.3 (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°C/ Heating mantle/Water bath, Whatman filter paper, Conical Flask, 250ml Capacity, Graduated Cylinder, Range 0 to 100ml LC-1ml, Test Tube, Litmus paper.
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*Note: The list above is indicative only and may not be treated as exhaustive.*

**ANNEX - B**  
**SCHEME OF INSPECTION AND TESTING**  
**FOR MONOCROTOPHOS SL ACCORDING TO IS 8074 : 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 equipment.

**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 Monocrotophos 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](http://www.bis.gov.in)”.

**4. CONTROL UNIT** – For the purpose of this scheme, the entire quantity of the material formulated in a mixer 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.

**5.2** On the basis of tests and analysis reports, the decision regarding conformity or otherwise of a control unit to a given requirement shall be made as follows:

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

5.2.2 In case the sample taken from the control unit fails in Monocrotophos 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 used for marking.

**6. RAW MATERIAL-** Monocrotophos, technical used in the formulation of Monocrotophos SL shall conform to IS 8025. A sample from each consignment of Monocrotophos, technical shall be tested for its conformity to IS 8025. Alternatively, each consignment shall be covered by a test certification from the supplier a recognized independent laboratory guaranteeing its conformity to IS 8025.

**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**

<b>(1)</b>				<b>(2)</b>	<b>(3)</b>		
<b>Test Details</b>				<b>Test equipment requirement R: required (or)S: Subcontracting permitted</b>	<b>Levels of control</b>		
<b>Cl.</b>	<b>Requirements</b>	<b>Test Methods Cl. Ref.</b>	<b>Test Method IS</b>		<b>No. of sample</b>	<b>Frequency</b>	<b>Remarks</b>
3.2.1	Description	3.2.1	IS 8074	R	One	Each control unit	
3.2.2	Cold Test	13.1	IS 6940	R	-do-	-do-	
3.2.3	Flash Point (Abel)	-	IS 1488 (Pt-20)	R	-do-	-do-	
3.3.1	Monocrotophos content	Annex B	IS 8025	R	-do-	-do-	
3.3.2	Free Aceto-Acetic Monomethylamide (MMA) content	Annex C	IS 8025	R	-do-	-do-	
3.3.3	Acidity	13.5.4	IS 6940	R	-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. Subcontracting 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.