PM/ 1507/1
June 2020

PRODUCT MANUAL
FOR COPPER OXYCHLORIDE WATER DISPERSIBLE POWDER CONCENTRATES ACCORDING TO IS 1507 : 1977

1.	**Product**	:	IS 1507 : 1977
	Title	:	Copper Oxychloride Water Dispersible Powder Concentrates
	No. of Amendments	:	01
2.	**Sampling Guidelines:**		
a)	Raw material	:	Copper Oxychloride, technical employed in the manufacture of Copper Oxychloride Water Disposable Powder Concentrates shall conform to IS 1486 : 1978
b)	Grouping guidelines	:	NA (No varieties for the product mentioned in IS)
c)	Sample Size	:	500g
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) Copper content (iii)Suspensibility (iv) pH of 1% aqueous dispersion		
6.	**Scope of the Licence :**		
	"Licence is granted to use Standard Mark as per IS 1507 : 1977 with the following scope:		
	Name of the product	Copper Oxychloride Water Dispersible Powder Concentrates	

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ANNEX – A
TO PRODUCT MANUAL
FOR COPPER OXYCHLORIDE WATER DISPERSIBLE POWDER CONCENTRATES ACCORDING TO IS 1507 : 1977

LIST OF TEST EQUIPMENTS

Major test equipment required to test as per requirement of Indian Standard

S. No.	Test Equipment / Chemicals / Glassware	Tests used in with Clause Reference
1	(a) Analytical balance, L.C. 0.01g (b) Conical flask-500ml (c) Measuring flask-50 ml (d) Heating mantle (e) Burette (f) Nitric Acid sp. gr. 1.42 (g) Urea (h) Sodium Carbonate(anhydrous) (i) Dil. Acetic Acid- 10% (j) Sodium Thiosulphate solution- 0.1N, standardized with potassium iodate or potassium dichromate (k) Starch Indicator solution-1%(m/v) (l) Potassium or ammonium Thiocyanate	Copper Content Cl 2.3, Table 1 (Appendix A of IS 1506)
2	(a) Beaker- of 6·0 to 6.5 cm internal diameter and 250 ml capacity (b) Pressure assembly - a piston or disc, loosely fitting in the beaker and so formed or weighed as to exert an even pressure of 25 g/cm^3. (c) Graduated Cylinder- of capacity 250ml with a ground glass stopper. The distance between 0 and 250 ml marks shall be 21.0±0.5cm with the clearance of 6.0 to 8.0 cm between 250 ml mark and the neck of the cylinder (d) Glass Tube- About 40 cm long, of an internal diameter of about 5 mm, drawn at one end to an opening of 2 to 3mm diameter, with the other end connected to a vacuum pump. (e) Standard Hard water- dissolve 0.3040g of $CaCl_2$ anhydrous and 0.1390g of $MgCl_2.6H_2O$ in distilled water and make up to 1L in a volumetric flask.	Suspensibility Cl 2.3, Table 1 (cl 11.2 of IS 6940)
3.	(a) pH meter-equipped with glass electrode system. (b) Measured Cylinder- 100 ml Capacity (c) Volumetric flask-100 ml (d) Buffer- pH 7.0 (e) Analytical balance- L.C. 0.01g	pH of 1% aqueous dispersion Cl 2.3, Table 1 (Appendix A of IS 1507)

List above is indicative only and may not be taken as exhaustive

ANNEXE – B

SCHEME OF INSPECTION AND TESTING FOR COPPER OXYCHLORIDE WATER DISPERSIBLE POWDER CONCENTRATES ACCORDING TO IS 1507 : 1977

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 Copper oxychloride water dispersible powder concentrates 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.

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 license should be marked with Standard Mark**.**

5.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

6. RAW MATERIAL – The Copper Oxychloride, technical used in the manufacture of this product shall conform to IS 1486. Each consignment of Copper Oxychloride, technical received shall be accompanied by a test certificate from the supplier regarding its conformity to IS 1486. Alternatively a sample from each consignment received shall be tested for its conformity to the specification. Appropriate record for all these tests shall be maintained.

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		
Clause	**Requirement**	**Test Methods Cl. Ref.**	**Test method IS**		**No. of Sample**	**Frequency**	**Remarks**
2.1	Description	2.1	IS 1507	R	One	Each control unit	
2.3 & Table 1	Copper Content	Appendix A	IS 1506	R	Two	-do-	
-do-	Suspensibility	11.2	IS 6940	R	One	-do-	
-do-	pH of 1% aqueous dispersion	Appendix A	IS 1507	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.