



उत्पाद मानुयल
सोडियम फ़ॉर्मैलेल्डीहाइड सलफोक्सीलेट
4505:2015 के अनुसार

**Product Manual for
Sodium Formaldehyde Sulphoxylate
According to IS 4505: 2015**

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम 2018 की स्कीम-I के तहत यह उत्पाद मानुयल प्रमाणीकरणके प्रचलन में रीति और पारदर्शिता के सुसंगत सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेन्स धारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस लाइसेन्स/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है।

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.	उत्पाद Product	:	IS 4505:2015
	शीर्षक Title	:	सोडियमफ़ॉर्मैलेल्डीहाइडसलफोक्सीलेट Sodium Formaldehyde Sulphoxylate
	संशोधन संख्या No. of Amendments	:	02
2.	नमूनाकरण दिशा निर्देश Sampling Guidelines:		
a)	कच्चा माल Raw material	:	लागू नहीं No specific requirement.
b)	समूहिकरण दिशा निर्देश Grouping guidelines	:	लागू नहीं Not applicable – sample of each grade to be tested.
c)	नमूनेका परिमाण Sample Size	:	500 grams
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	कृपया Annex-ए देखें Please see Annex – A
4.	निरीक्षण व परीक्षण स्कीम Scheme of Inspection and Testing	:	कृपया Annex-B देखें Please see Annex – B
5.	एक दिन में संभावित परीक्षण Possible tests in a day :		
	All the tests mentioned in the IS except keeping quality are possible to be carried out in a day.		

6.	लाइसेन्स का कार्यक्षेत्र/Scope of the Licence:	
	IS 4505: 2015 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेन्स निम्नलिखित कार्यक्षेत्रके लिए प्रदान किया जाता है “Licence is granted to use Standard Mark as per 4505 : 2015 with the following scope:	
	उत्पाद का नाम Name of the product	सोडियमफॉर्मैल्डीहाइडसलफोक्सीलेट Sodium Formaldehyde Sulphoxylate
	ग्रेड Grades	ग्रेड 1, ग्रेड 2 Grade 1, Grade 2

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ANNEX – A

**TO PRODUCT MANUAL FOR
SODIUM FORMALDEHYDE SULPHOXYLATE
AS PER IS 4505 : 2015**

LIST OF TEST EQUIPMENTS

Major test equipment required to test as per the Indian Standard

Sr. No.	Tests used in with Clause Reference	Test equipment
1.	Description(clause-4.1 & 4.2)	
2.	Sodium formaldehyde sulphoxylate dehydrate perc by mass max $\text{NaHSO}_2 \cdot \text{CH}_2\text{O} \cdot 2\text{H}_2\text{O}$ (clause-4.3& Table 1)	Formaldehyde solution,1:9(v/v),Starch, Mercuric iodide, Sodium bicarbonate, Standard iodine solution 0.1N,Weighing Balance, Different sizes of volumetric flasks, Burettes and Measuring Cylinders, Distilled water.
3.	Sodium formaldehyde bisulphate perc by mass max $(\text{NaHSO}_3 \cdot \text{CH}_2\text{O} \cdot \text{H}_2\text{O})$ (clause 4.3& Table 1)	Formaldehyde solution,1:9(v/v),Starch, Mercuric iodide, Sodium bicarbonate, Standard iodine solution 0.1N,Weighing Balance, Different sizes of volumetric flasks, Burettes and Measuring Cylinders, Distilled water.
4.	Sodium Sulphite perc by mass max (clause 4.3&Table 1)	Formaldehyde solution,1:9(v/v),Starch, Mercuric iodide, Sodium bicarbonate, Standard iodine solution 0.1N,Weighing Balance, Different sizes of volumetric flasks, Burettes and Measuring Cylinders, Distilled water.
5.	PH(clause 4.3& Table1)	PH Meter, Weighing Balance, Carbon dioxide free water,1000ml volumetric flask.
6.	Iron as Fe perc by mass max (clause4.3& Table1)	Nessler's tubes of 50ml capacity, Conc H_2SO_4 , Conc HCL, Dil HCL 5N, Ammonium persulphate solid, Weighing Balance, Potassium thiocyanate, n- butanol, Ferrous ammonium sulphate, Dil. H_2SO_4 ,Evaporating dish, Muffle furnace, Water bath.
7.	Lead perc by mass (clause 4.3& Table 1)	Atomic absorption spectrophotometer with background corrector and having the lampcurrent,support(air),Fuel(acetylene) and Flame stoichiometry(oxidising). Pure lead metal (99%),Conc HNO_3 ,Conc HCL, Distilled water.
8.	Copper percent by mass (clause 4.3& Table 1)	Nessler's tubes of 50ml capacity,Citric acid Sol.10%(w/v) Gum Arabic Sol. 1%(w/v),Dil Ammonium hydroxide,Conc. HCL,Dil HCL,Sodium diethyl dithiocarbonate,Copper sulphate pentahydrate,
9.	Zincpercent by mass (clause 4.3& Table 1)	Flat Bottom Glass Stoppered Tube of 50ml capacity, PH meter,Diphenylthiocarbozone,carbon tetrachloride,Sodium acetate 2N,Acetic acid 2N,Quantitative filter paper,Sodium thiosulphate,Granulated zinc,5N HCL.

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

ANNEX – B

SCHEME OF TESTING & INSPECTION

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, STORAGE AND MARKING—The Standard Mark, as given in the Schedule of the licence, shall be stenciled /printed with indelible ink on each container of Sodium Formaldehyde Sulphoxylate or printed on the label applied to it; provided always that material so marked conform to requirements of the specification.

3.1 Packing, Storage and Marking shall be done as per Cl. 6 of IS 4505. In addition, the following shall be incorporated on each container:

i) BIS Licence Number CM/Land

ii) 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, Sodium Formaldehyde Sulphoxylate manufactured at a time in one reaction vessel 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 A sample shall be drawn from each control unit and tested as per the Indian Standard. It shall conform to all the requirements laid down in the standard. In the event of failure of the sample in one or more of the requirements, the entire material in the control unit shall be either reprocessed for rectifying the defect or rejected. Such reprocessed material when tested again shall conform to all the requirements of the Indian Standard.

5.2 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
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			No. of Sample	Frequency	Remarks
		Clause	Reference				
4.1 & 4.2	Description		IS 4505:2015	R	One	Each control unit	
4.3 and Table 1	Sodium formaldehyde sulphonylate dihydrate	A-2	IS 4505:2015	R	One	Each control unit	
4.3 and Table 1	Sodium formaldehyde bisulphate	A-2	IS 4505:2015	R	One	Each control unit	
4.3 and Table 1	Sodium sulphite	A-2	IS 4505:2015	R	One	Each control unit	
4.3 and Table 1	pH	A-3	IS 4505:2015	R	One	Each control unit	
4.3 and Table 1	Iron (as Fe)	A-4	IS 4505:2015	R	One	Each control unit	
4.3 and Table 1	Lead (as Pb)	4.3&Table 1	IS 12074	R	One	Each control unit	
4.3 and Table 1	Copper (as Cu)	A-5	IS 4505:2015	R	One	Each control unit	
4.3 and Table 1	Zinc (as Zn)	A-6	IS 4505:2015	R	One	Each control unit	
Cl. 5.0	Keeping quality	Clause 5	All the above mentioned tests of Table 1 of IS 4505:2015	R	One	Once in six months	

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.