उत्पाद मैन्युअल
जिंक फास्फाइड, तकनीकी
भारतीय मानक 1251: 2026 के अनुसार

PRODUCT MANUAL
FOR ZINC PHOSPHIDE, TECHNICAL
ACCORDING to IS 1251: 2026

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो) अनुरूपता मूल्यांकन (विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity 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.

1.	**मानक संख्या** **IS No.**	:	IS 1251: 2026
	शीर्षक **Title**	:	जिंक फास्फाइड Zinc Phosphide, Technical - Specification.
	संशोधनों की संख्या **No. of amendments**	:	Nil
2.	**नमूना दिशानिर्देश** **Sampling Guidelines**		
a)	**कच्चा माल** **Raw material**	:	No specific requirement. *Note: This section indicates the requirements for raw material (if specified in the IS) for which compliance is to be established during Grant of Licence/Change in Scope of Licence/Factory Surveillance.*
b)	**समूहीकरण दिशानिर्देश** **Grouping Guidelines**	:	NA (No variety for the product mentioned in IS)

c)	**नमूने का परिमाण** **Sample Quantity**	:	500 g *Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in market)*
d)	**परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर** **Parameters to be Declared in Test Request**	:	Nil *Note: Apart from the above, any other requirements/parameters may also be declared as per the standard, as applicable.*
3.	**परीक्षण उपकरणों की सूची** **List of Test Equipment**	:	Please refer to Annex-A
4.	**निरीक्षण और परीक्षण की स्कीम** **Scheme of Inspection and Testing**	:	Please refer to Annex-B
5.	**एक दिन में संभावित परीक्षण** **Possible tests in a day**		
	All tests. *Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies(OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.*		
6.	**लाइसेंस का दायरा/Scope of the Licence:**		
	"Licence is granted to use Standard Mark as per IS 1251: 2026 with the following scope:		
	Name of the product		Zinc Phosphide, Technical
	Varieties/Type/Grades etc.		--

ANNEX A

List of Test Equipment

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sr. No.	Tests Used in with Clause Reference	Test Equipment/Chemicals/Glassware
1	Zinc Phosphide (Zn3P2) Cl. 3.2,Table 1 and Annex A of IS 1251	Reaction flask -250 ml with a standard interchangeable socket, Separating funnel-250 ml, Delivery tube (PVC tube, surgical soft type), Absorption bottles-200/250ml (04 nos), Nitrogen or Carbon Dioxide gas arrangement/inlet tube, thermostatically controlled water bath (0-1000C / LC 1 0C), Heating plate (0-100 0C / LC 1 0C) and a suitable mounting stand. Standard Potassium Permanganate Solution – 0.5N, Sulphuric Acid 10% (m/v), Sulphuric Acid 1:1 (v/v), Standard Sodium Hydroxide Solution – 1N, Standard Oxalic Acid Solution – 0.5N Distilled Water, Nitrogen gas or Carbon dioxide gas General Glassware.
2	Zinc Content, Percentage by Mass Cl. 3.2 Table 1 and Annex B of IS 1251	Erlenmeyer flask-500 ml, Filter paper, Litmus paper, Pipette and Volumetric flasks. Sodium Hydroxide – 1N, EDTA Solution – 0.1N, Standard Zinc Solution, Hydrochloric Acid (1:1 v/v), Erichrome Black T Indicator, Sodium Chloride, Buffer Solution (made with Ammonium Chloride, Strong Ammonia Solution, Distilled Water), Sodium Hydroxide – 0.5N, Sulphuric Acid 10% (v/v) and Ammonia Solution 10% (v/v). General Glassware.
3	Sieving Requirements: Cl. 3.2 Table 1 of IS 1251 and IS 6940 a) Material passing through 150 micron IS Sieve b) Material passing through 106 micron IS Sieve	106 micron and 150 micron IS Sieves and Weighing balance (R 0-200gm / LC 0.5gm Min.). Ro-tap or a similar machine, small square rubber cubes, brush, weighing dish. Alternatively, BS Sieves 100 and 150 or ASTM Sieves 100 and 140 or Tyler Sieves 100 and 150 respectively, may also be used.
4	Freedom from Sulphides Cl. 3.3 of IS 1251 and Annex C of IS 1251	Gas wash bottle/Absorption bottle. Standard Neutral Cadmium Sulphate Solution – 2M. General Glassware.

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

ANNEX – B

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that during operation of BIS licence, manufacturers will implement a Quality Assurance Plan (QAP) i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing theStandard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.

1.3 **RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT**:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: *The entire quantity of the material formulated in a mixer at a time in one operation.*

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan.

2. ENSURING COMPLIANCE THROUGH TESTING- manufacturers shall ensure compliance of their products to all the requirementsof the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

i) Shared testing resources like common facility,

ii) Cluster based testing facility,

iii) Sub-contracting to outside laboratories which may either be:

a) BIS recognised/empanelled laboratories, or

b) Any accredited laboratory as per ISO/IEC 17025

2.1 **TEST RECORDS**- The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility,test results issued by the laboratories or test facilities, shall be made available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark, as given in the Schedule of the licence, shall be stencilled/printed on each container of Zinc phosphide, technical 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: “For BIS certification details please visit www.bis.gov.in”

4. REJECTION - The production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. 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
(Recommended Levels of Control by BIS - For Guidance Only)

(1)				(2)	
Test Details				**Levels of Control**	
Clause	*Requirement*	*Test Methods*		*No. of Sample*	*Frequency*
		Clause	*Reference*		
3.1	Description	3.1	IS 1251	One*	Every 20 drums (each of 50 kg) or part thereof of control unit
3.2, Table 1, Sl. No. i)	Zinc Phosphide (Zn_3P_2) , Percentage by Mass	Annex A	IS 1251	One	-do-
3.2, Table 1, Sl. No. ii)	Zinc content, Percentage by Mass	Annex B	IS 1251	One	-do-
3.2, Table 1, Sl. No. iii) a)	Sieving Requirements: Material passing through 150 micron IS Sieve.	12.1	IS 6940	One	-do-
3.2, Table 1, Sl. No. iii) b)	Sieving Requirements: Material passing through 106 micron IS Sieve.	12.1	IS 6940	One	-do-
3.3	Freedom from Sulphides	Annex C	IS 1251	One	-do-

* The sample drawn shall be a representative of the 20 drums (each of 50 kg) or part thereof sampled. Small quantities shall be drawn from each of the 20 drums or part thereof and mixed together to constitute a representative sample.