



Sulfamic Acid 14932: 2001 के अनुसार

**PRODUCT MANUAL FOR
Sulfamic Acid- Specification
ACCORDING TO IS 14932: 2001**

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 14932: 2001
	शीर्षक Title	:	Sulfamic Acid
	संशोधनों की संख्या No. of amendments	:	0
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	NA
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Each grade shall be tested to be covered in the scope of license
c)	नमूने का परिमाण Sample Quantity	:	500 gm

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		
	Description Matter insoluble in water Sulphates (as SO ₄) Lead (as Pb) Sulfamic acid (as NH ₂ SO ₃ H) Iron (Fe) Free moisture		
6.	लाइसेंस का दायरा /Scope of the License:		
	“License is granted to use Standard Mark as per IS 14932: 2001 with the following scope:		
	उत्पाद का नाम Name of the product	Sulfamic acid	
	Variety	Technical Grade / Pure Grade	

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9, BAHADUR SHAH ZAFAR
MARG,NEW DELHI-110002

ANNEX – A

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sr. No.	Tests used in with Clause Reference	Test equipment
1.	Description (Cl 4.1)	Alcohol, distilled water
2.	Matter insoluble in water, percent by mass (Table 1, Cl. 4.2, SI No. i)	Weighing Balance, Electrical oven, steam bath, distilled water, sintered glass crucible (G No. 4).
3.	Sulphates (as SO ₄), percent by mass (Table 1, Cl. 4.2, SI No. ii)	Weighing Balance, Nessler Cylinders (50 ml), 100 ml volumetric flask, Barium chloride solution 10%, concentrated hydrochloric acid, standard sulphate solution (potassium sulphate K ₂ SO ₄), turbidity meter
4.	Lead (as Pb), percent by mass, (Table 1, Cl. 4.2, iii)	Weighing Balance, Nessler Cylinders (50 ml), 1000 ml volumetric flask, Lead nitrate, Concentrated nitric acid, Ammonia solution 25%, Sodium Sulphide solution 10%, Potassium Cyanide Solution 10%, pH paper.
5.	Sulfamic acid (as NH ₂ SO ₃ H) percent by mass (Table 1, Cl. 4.2, SI No. iv)	Weighing Balance, Starch iodide paper, Dilute Sulphuric Acid 1:1 (v/v), Standard Sodium Nitrite Solution 0.5N, magnetic stirrer
6.	Iron (Fe), percent by mass (Table 1, Cl. 4.2, SI No. v)	Weighing Balance, 500 & 1000 ml volumetric flask, Hydroxylamine hydrochloride (NH ₂ OH, HCl) Solution 1 percent (m/v), 1,10 Phenanthroline Monohydrate Solution 0.15 percent, Acetate Buffer (Solution-sodium acetate trihydrate, glacial acetic acid), Standard Iron Solution- A.R. grade ferrous ammonium sulphate, sulphuric acid, Sodium Hydroxide A.R. Grade, pH Meter with Glass Electrode, Photoelectric Absorptiometer, hot plate
7.	Free moisture, percent by mass (Table 1, Cl. 4.2, SI No. vi)	Weighing Balance, flat-bottomed petri dish, electric oven, desiccator

ANNEX B

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

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

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: Entire quantity of Sulfamic acid of same grade produced in a continuous run from the same raw material in a day.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

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. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as “R” or other tests which can be subcontracted as “S”. Subcontracting is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as “R” in Column 2 of Table 1) is also optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on the HDPE woven bags, provided always that the material in each bag to which this mark is thus applied conforms to each requirement of the specification.

3.1 Packing and Marking shall be done as per the Indian Standard.

3.2 **Additional Marking requirements:** The HDPE woven bags used for packing the material shall also be marked with the following additional requirement:

a) “For BIS certification details please visit www.bis.gov.in”

4. REJECTION - All 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
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub- contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Samples	Frequency	Remarks
		Clause	Reference				
4.1	Description	-	IS 14932	R	One	Each Control Unit	
4.2, Table 1, (i)	Matter insoluble in water	-	IS 14932	R	-do-	-do-	
(ii)	Sulphates (as SO4)	-	IS 14932	R	-do-	-do-	
(iii)	Lead (as Pb)	-	IS 14932	S	-do-	Once in a month	
(iv)	Sulfamic acid (as NH2SO3H)	-	IS 14932	R	-do-	Each Control Unit	
(v)	Iron (Fe)	-	IS 14932	R	-do-	-do-	
(vi)	Free moisture	-	IS 14932	R	-do-	-do-	