



उत्पाद मैनुअल

PYRIDINE- SPECIFICATION

IS 8058: 2018 के अनुसार

PRODUCT MANUAL FOR PYRIDINE- SPECIFICATION ACCORDING TO IS 8058:2018

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 8058 : 2018
	शीर्षक Title	:	Pyridine
	संशोधनों की संख्या No. of amendments	:	2
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	:	Please refer ANNEX –A
c)	नमूने का परिमाण Sample Quantity	:	1 litre. 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		Grade 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 ANNEX –B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer ANNEX –C
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	All the tests mentioned in the IS are possible to be carried out in a day. 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 readyreference 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 8058 : 2018 with the following scope:		
	Name of the product	Pyridine	
	Grade(s)	Grade 1 and/or Grade 2 and/or Grade 3	

BUREAU OF INDIAN STANDARDS
Manak Bhawan, 9, Bahadur Shah Zafar Marg,
New Delhi – 110002

ANNEX-A

GROUPING GUIDELINES

1. Each grade intended to be covered in the scope of the licence is to be tested.
2. Scope of licence shall be restricted based on the manufacturing and testing facilities available.
3. During operation of licence, samples of each grade covered in the scope of licence, shall be tested in rotation, to the extent possible

ANNEX – B
LIST OF TEST EQUIPMENT
(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests Used in With Clause Reference	Test Equipment/Chemicals
1.	Solubility/Cl 4.2	General Glassware Distilled water Alcohol, Chloroform, Ether
2.	Identity and purity/ Cl 4.3	Gas Chromatograph (with FID) with data acquisition system and integrating chromatographic peaks using capillary column of CP-WAX-52CB, 60 mm long, 0.25 mm ID, film thickness – 0.25 µm Reference Working Standard of Pyridine Reference Working Standard of Alpha Picoline Reference Working Standard of Gamma Picoline Internal Standard — Pentadecane (> 99%) Methanol Electronic Balance with LC 0.1 mg General Glassware
3.	Relative Density /Cl 4.4 Table 1 Sl no. i)	Relative Density bottle or pycnometer Distilled water Water-bath Thermometer Weighing balance
4.	Pyridine content /Cl 4.4 Table 1 Sl no. ii)	Gas Chromatograph (with FID) with data acquisition system and integrating chromatographic peaks using capillary column of CP-WAX-52CB, 60 mm long, 0.25 mm ID, film thickness – 0.25 µm Reference Working Standard of Pyridine Reference Working Standard of Alpha Picoline Reference Working Standard of Gamma Picoline Internal Standard — Pentadecane (> 99%) Methanol Electronic Balance with LC 0.1 mg General Glassware
5.	Boiling Range /Cl 4.4 Table 1 Sl no. iii)	Measuring Cylinder Distillation Flask Total Immersion Type Thermometer Distillation Receiver Condenser Draught Screen Asbestos Board Gas Burner or Electric Heater Barometer General Glassware
6.	Residue on evaporation /Cl 4.4 Table 1 Sl no. iv)	Porcelain Basin Oven, Desiccator Weighing balance General Glassware

7.	Ammonium compounds (as NH ₄ or Free Ammonia)/Cl 4.4 Table 1 Sl no. v)	(As NH₄) Sodium hydroxide (10% m/v) Nessler solution Standard Ammonium Chloride Solution Sintered glass crucible Distilled water (As Free Ammonia) Hydrochloric Acid Phenolphthalein Indicator, Distilled Water Titration Glassware
8.	Chlorides (as Cl) /Cl 4.4 Table 1 Sl no. vi)	Method 1 Dilute Nitric Acid Silver Nitrate Solution (5% m/v) Methanol Solution Standard Sodium Chloride Solution Volumetric Flask, Nessler Cylinder Method 2 Concentrated Nitric Acid Std. Silver Nitrate Solution – 0.1 N Nitrobenzene Std. Ammonium Thiocyanate Solution -0.1 N Ferric Ammonium Sulphate Indicator Heating Apparatus, Titration Glassware
9.	Copper (as Cu) /Cl 4.4 Table 1 Sl no. vii)	Method 1 Ascorbic Acid, Dilute Hydrochloric Acid, Sodium Acetate (40% m/v) Bathocuproine Reagent, Ammonium hydroxide, Heating Apparatus, Whatman filter paper no. 1, pH meter, Nessler Cylinders Method 2 Nessler Cylinders Concentrated Hydrochloric Acid, Concentrated Nitric Acid Citric Acid, Dilute Ammonium hydroxide, Chloroform Sodium Diethyldithiocarbamate, Standard Copper solution Weighing balance, pH meter, Heating Apparatus
10	Oxidizable substances/Cl 4.4 Table 1 Sl no.viii)	Standard Potassium permanganate solution – 0.1 N General glassware
11	Sulphates (as SO ₄) /Cl 4.4 Table 1 Sl no. ix)	Nessler Cylinders, One Mark Graduated Flasks Denatured Spirit Dilute Hydrochloric Acid Barium Chloride Solution (10% m/v) Standard Sodium Sulphate Solution
12	Moisture content/Cl 4.4 Table 1 Sl no. x)	Pyridine free Karl Fischer Reagent Karl Fischer Titrator apparatus with electrometric end point detection Analytical balance Hot air oven Distilled water Ice Bath Galvanometer Glass wares Thermometer Reagents:- Methanol, 2-Methoxyethanol, Iodine, Pyridine, Sulphur Di Oxide, Sodium Tartarate (Crystalline), Silicone

		BaseGrease
13	Colour, HU (Pt-Co scale) / Cl 4.4 Table 1 Sl no. xi)	Chloroplatinic acid or Potassium Chloroplatinate Cobalt chloride hexahydrate Hydrochloric acid Water Colour Comparison Tubes Colour Comparator Spectrophotometer with Cells Platinum Cobalt Colour Standards General glassware

ANNEX- C

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 the Standard 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 of the same grade produced in a day from similar raw materials shall constitute a control unit .

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 requirements of 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 incorporated legibly and indelibly on each packaging provided always that the material so marked conforms to each requirement of the specification.

3.1 Packing shall be done as per Cl 6.1 of the Indian Standard and Marking shall be done as per Cl 6.2 of the Indian Standard.

3.2 If material is supplied in tank cars, tank trucks, container ships etc. the Standard Mark as given in Schedule of the licence and Licence Number (i.e. CM/L) shall be incorporated on a test certificate to be provided along with each tank car/tank truck/container ship as per the format at Appendix-1 enclosed, provided always that the product thus marked conforms to all the requirement of the specification. Packing shall be done as per provisions of Indian Standard and the marking details as per Cl 6.2 of IS 8058: 2018 shall also be indicated on the test certificate.

3.3 All containers (including containers/tankers for bulk transport) in which the material is stored or transported shall be marked in accordance with clause 6.2.4 the Indian Standard.

3.4 **Additional Marking requirements:** The material shall also be marked with the following additional requirement on each packaging:

“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)				(3)		
Test Details				Levels of Control		
Clause	Requirements	Test Method		No. of Samples	Frequency	Remarks
		Clause	IS			
4.1	Description	4.1	IS 8058	Firm to have adequate in-process controls to check compliance of this parameter as given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
4.2	Solubility	4.2	IS 8058	One	Each Control Unit	-----
4.3	Identity and purity	Annex B	IS 8058	One	Each Control Unit	-----
4.4 Table 1 Sl no. i)	Relative Density	Annex-A	IS 8058	One	Each Control Unit	-----
4.4 Table 1 Sl no. ii)	Pyridine content	Annex-B	IS 8058	One	Each Control Unit	-----
4.4 Table 1 Sl no. iii)	Boiling Range at 760mm Hg	Annex-C	IS 8058 IS 5298	One	Each Control Unit	-----
4.4 Table 1 Sl no. iv)	Residue on evaporation	Annex-D	IS 8058	One	Each Control Unit	-----
4.4 Table 1 Sl no. v)	Ammonium compounds (as NH ₄ or as free ammonia)	Annex-E Annex-F	IS 8058	One	Each Control Unit	-----
4.4 Table 1 Sl no. vi)	Chlorides (as Cl)	Annex-G	IS 8058	One	Each Control Unit	-----
4.4 Table 1 Sl no. vii)	Copper (as Cu)	Annex-H	IS 8058	One	Each Control Unit	-----
4.4 Table 1 Sl no. viii)	Oxidizable substances	Annex-J	IS 8058	One	Each Control Unit	-----

4.4 Table 1 Sl no. ix)	Sulphates (as SO ₄)	Annex-K	IS 8058	One	Each Control Unit	-----
4.4 Table 1 Sl no. x)	Moisture content	Annex-L	IS 8058 IS 2362	One	Each Control Unit	-----
4.4 Table 1 Sl no. xi)	Colour, HU (Pt-Co scale)	4.4 (Table 1)	IS 8768	One	Each Control Unit	-----

Appendix-1

TEST CERTIFICATE XYZ COMPANY
(REGISTERED OFFICE ADDRESS AND WORKS ADDRESS)
TEST CERTIFICATE FOR PYRIDINE AS PER IS 8058:2018

TEST CERTIFICATE NO. _____

Dated:

SUPPLIED TO M/s _____ (Name and Address of Consignee)

It is certified that the material described below fully conforms to IS 8058:2018. The properties of the product, as tested in accordance with the Scheme of Inspection and Testing contained in the BIS Certification Marks License No. CM/L _____ are as indicated below against each order no. etc.
(PLEASE REFER TO IS 8058:2018, FOR DETAILS OF SPECIFICATION REQUIREMENTS)

TEST RESULTS

Order no and date	Name and Grade of the material	Control Unit/ Batch Number	Month and Year of manufacture	Qty	Requirements														Remarks
					Description	Solubility	Identity and purity	Relative Density	Pyridine content	Boiling Range at 760mm Hg	Residue on evaporation	Ammonium compounds (as NH ₄ or as free ammonia)	Chlorides (as Cl)	Copper (as Cu)	Oxidizable substances	Sulphates (as SO ₄)	Moisture content	Colour, HU (Pt-Co scale)	

The material supplied conforms to specified requirements of IS 8058:2018

REMARKS: Tank Car / Tank Truck / Container ship no.

(Signature)
For XYZ Company