



**उत्पाद मैनुअल
ईथर - विशिष्टि
आईएस 336: 2021 के अनुसार**

**PRODUCT MANUAL FOR
ETHER - SPECIFICATION
ACCORDING TO IS 336: 2021**

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम 2018 की स्कीम-I के तहत यह उत्पाद मानुयल प्रमाणीकरण के 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 336 : 2021
	उपाधि Title	:	ईथर - विशिष्टि Ether – Specification
	संशोधनों की संख्या No. of Amendments	:	1
2.	नमूना करण दिशानिर्देश Sampling Guidelines:		
a)	कच्चा माल Raw material	:	a) Manufacturer to submit undertaking that the material consists essentially of diethyl ether, as per provisions of Cl. 4.3.1 b) If the product contains a suitable stabilizer the same shall be in a proportion not greater than 0.002 percent (m/v). The manufacturer needs to declare the same on the label of each container, as per provisions of Cl. 4.3.2
b)	समूहीकरण दिशानिर्देश Grouping guidelines	:	कृपया Annex-ए देखें Please see Annex – A
c)	नमूना आकार	:	Quantity: one litre

	Sample Size		
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	कृपया Annex-B देखें Please see Annex-B
4.	निरीक्षण और परीक्षण की योजना Scheme of Inspection and Testing	:	कृपया Annex-C देखें Please see Annex-C
5.	एक दिन में संभावित परीक्षण Possible tests in a day	:	All tests
6.	लाइसेंस का दायरा / Scope of the Licence:		
	IS 336: 2021 के अनुसार मानक चिह्न का उपयोग करने के लिए लाइसेंस निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है: Licence is granted to use Standard Mark as per IS 336: 2021 with the following scope:		
	उत्पाद का नाम Name of the product	ईथर - विशिष्टि Ether – Specification	
	श्रेणी Grade	i) Solvent; and/or ii) Anaesthetic	

BUREAU OF INDIAN STANDARDS

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ANNEX – A
TO PRODUCT MANUAL FOR
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ACCORDING TO IS 336: 2021

GROUPING GUIDELINES

1. Ether has been classified into following 2 grades (clause 3):

i.	Solvent
ii.	Anaesthetic

2. The manufacturer shall declare the grade of Ether, they intend to cover in the scope of licence. The sample of each grade to be drawn and shall be subjected to testing for considering grant of licence / inclusion of that grade.
3. It shall be ensured that the firm is having all the necessary manufacturing and testing facilities for the manufacture and testing of the grades to be included in the licence.
4. During the operation of licence, BO shall ensure that all the grades of Ether, covered in the license are drawn for independent testing on rotation over a period of time.

ANNEX – B
TO PRODUCT MANUAL FOR
ETHER - SPECIFICATION
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List of test equipment

Sr No	Test used in with clause reference	Test equipment
1.	Description, clause 4.1	Visual
2.	Odour, clause 4.2	Filter paper; beaker
3.	Solubility, clause 4.4	Rectified spirit; chloroform; fatty and essential oil; beaker
4.	Relative Density, sl no (i) of table 1 (clause 4.5)	Relative Density bottle – stoppered, regnault type; constant temperature bath; weighing balance; Distilled water, Arrangement for maintain temperature at 20 °C or less
5.	Peroxides, sl no (ii) of table 1 (clause 4.5)	Potassium Iodide; Starch; iodine; arsenic trioxide; NaOH; HCl; Sodium bicarbonate; weighing balance; glass-stoppered tube
6.	Distillation range, sl no (iii) of table 1 (clause 4.5)	Distillation apparatus with accessories as per IS Specification; Distillation Flasks; Appropriate thermometers as per IS specification; Barometric pressure measuring device
7.	Residue on Evaporation, sl no (iv) of table 1 (clause 4.5)	Platinum, silica or borosilicate glass basin, water bath or hot plate, weighing balance, hot air oven, Desiccator
8.	Methyl Alcohol, sl no (v) of table 1 (clause 4.5)	Potassium permanganate; Orthophosphoric acid; Sulphuric acid; Oxalic acid; sodium sulphite; conc. HCl; Magenta (fuchsin); ice bath; animal charcoal; ethyl alcohol; weighing balance;
9.	Aldehydes and Acetone, sl no (vi) of table 1 (clause 4.5)	Potassium Iodide; mercuric chloride; sodium hydroxide; potassium hydroxide; glass-stoppered,
10.	Sulphurous Acid and Other free acids, sl no (vii) of table 1 (clause 4.5)	Phenolphthalein indicator, ethyl alcohol, sodium hydroxide, glass stoppered flask

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

ANNEX C
TO PRODUCT MANUAL FOR
ETHER - SPECIFICATION
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Scheme of Inspection and Testing

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 and implement 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 AND MARKING- The Standard Mark, as given in the Schedule of the license shall be marked on each container of Ether, provided always that the material in each container on which this Mark is thus applied conforms to every requirement of the specification.

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

3.2 In addition, the following shall be incorporated on each container:

- i) BIS Licence Number CM/L— ; and
- ii) BIS website details i.e. — “For details of BIS certification please visit www.bis.gov.in”

3.2.1 Each container shall be marked with caution label ‘FLAMMABLE’, together with the corresponding symbol for labelling of dangerous goods as given in Fig. 5 of IS 1260 (Part1).

4. CONTROL UNIT - For the purpose of this scheme, quantity of ether of the same grade produced from the same consignment of alcohol and using the same catalyst, and packed in a day shall constitute a control unit.

5. LEVELS OF CONTROL – The tests as indicated in Column 1 of Table 1 of IS 336:2021, and the levels of control specified in column 3 of Table 1, shall be carried out on the whole production of the factory covered by this scheme and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standard and covered by the licence shall 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)
(Para 5 of Scheme of Inspection and Testing)

(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
		Cl. Ref.	IS				
4.1	Description	4.1	IS 336	R	Firm to have adequate in-process controls to check compliance of this parameter as per the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
4.2	Odour and Taste	4.2	IS 336	R			
4.4	Solubility	4.4	IS 336	R			
4.5	Relative density at 20 °C/ 20 °C	4.5 & Table 1, A-3	IS 336	R	One	Each control unit	-
4.5	Peroxides	4.5 & Table 1, A-4	IS 336	R	One	Each control unit	-
4.5	Distillation range	4.5 & Table 1, A-5	IS 336	R	One	Each control unit	-
4.5	Residue on evaporation, g/100 ml, Max	4.5 & Table 1, A-6	IS 336	R	One	Each control unit	-
4.5	Methyl Alcohol	4.5 & Table 1, A-7	IS 336	R	One	Each control unit	-
4.5	Aldehydes and ketones as Acetone	4.5 & Table 1, A-8	IS 336	R	One	Each control unit	-
4.5	Sulphurous acid and other free acids	4.5 & Table 1, A-9	IS 336	R	One	Each control unit	-

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 empaneled 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.