



उत्पाद मनअल
स्थिर हाइड्रोजन पेरोक्साइड -विशिष्टि
IS 2080: 2021 के अनुसार

**PRODUCT MANUAL FOR
STABILIZED HYDROGEN PEROXIDE - SPECIFICATION
ACCORDING TO IS 2080: 2021**

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम 2018 की स्कीम-I के तहत यह उत्पाद मानुयल प्रमाणीकरणके प्रचलन मे रीति और पारदर्शिता के सुसंगता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेन्स धारियों द्वारा संदर्भ सामग्री के रूप मे 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 2080 : 2021
	शीर्षक Title	:	स्थिर हाइड्रोजन पेरोक्साइड -विशिष्टि Stabilized Hydrogen Peroxide- Specification
	संशोधन संख्या No. of Amendments	:	01
2.	नमूनाकरण दिशा निर्देश Sampling Guidelines:		
a)	कच्चा माल Raw material	:	No specific requirement
b)	समूहिकरण दिशा निर्देश Grouping guidelines	:	Samples of each grade to be drawn separately for testing to cover in the scope of the licence.

c)	नमूने का परिमाण Sample Size	:	Entire container or multiples thereof subject to a minimum of 1000 ml
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	कृपया Annex-A 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: Description, strength, Stability, Acidity, Residue on Evaporation		
6.	लाइसेन्स का कार्यक्षेत्र / Scope of the Licence: IS 2080: 2021 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेन्स निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है “Licence is granted to use Standard Mark as per 2080: 2021 with the following scope:		
	उत्पाद का नाम Name of the product		स्थिर हाइड्रोजन पेरोक्साइड Stabilized Hydrogen Peroxide
	ग्रेड Grade		Grade 1 and/or 2 and/ or 3 and/or 4 and/or 5 and/or 6

BUREAU OF INDIAN STANDARDS
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New Delhi – 110002

ANNEX A
LIST OF TEST EQUIPMENTS
TO THE PRODUCT MANUAL FOR
STABILIZED HYDROGEN PEROXIDE- SPECIFICATION
AS PER IS 2080: 2021

Major Test Equipment required to test as per Indian Standard

Sr. No.	Tests used in with Clause Reference	Test equipment
1.	4.2, Annex – A, Strength	Weighing Balance
		Conical Flask
		Burette
		Weighing Bottle (5 ml)
		Potassium Permanganate
		Sodium Oxalate
		Sulphuric Acid
		Alternate Method - Densitymeter Method:
		Densitymeter, fitted with autosampler
		Air and Ultra-pure water
2.	4.3, Annex - B, Stability	For Grade 1, 2, 3, 4
		Boiling Water Bath
		Reaction Tube
		Liebig Condenser
		Gas Burette
		Levelling Tube
		Pipette
		Nitric Acid
		Stop Watch
		For Grade 5, 6
		Round bottomed flask (250 ml)
		Reflux condenser
		Pipette
		Sand Bath
		Stop Watch
3.	4.4, Table 1 (i), Annex C-1: Acidity:	Burette
		Pipette
		Conical flask
		Methyl red
		Methylene Blue
		Rectified Spirit

		Sodium Hydroxide
		Amber Glass bottle
		Beakers
4.	4.4, Table 1 (ii), Annex C-2: Residue on Evaporation	Platinum Dish
		Balance
		Air Circulating Oven
		Cylinder
		Water Bath
5.	4.4, Table 1 (iii), Annex C-3: Residue on Ignition	Platinum Dish
		Balance
		Muffle Furnace
6.	4.4, Table 1 (iv), Annex C-4 and C-8 :Iron (as Fe):	Nessler Cylinders (50 ml)
		Pipette
		Sulphuric Acid
		Citric Acid,
		Thioglycollic Acid
		Ammonium Hydroxide
		Ferrous Ammonium Sulphate
		Sodium Hydroxide
		Hot plate/ Burner
		100 ml graduated flask
		Alternate Method – ICP-OES Method :
		Inductively Coupled Plasma – Optical Emission Spectrometer (Integrated with Computer Operated Software)
		Evaporating Dish, 100 ml
		Platinum piece
		Water bath
		Ultrapure demineralised water
		Ultrapure nitric acid
		Volumetric flask
		Multi element Standard Solution
7.	4.4, Table 1 (v), Annex C-5 and C-8 : Copper (as Cu):	Nessler Cylinders (50 ml)
		Pipette
		Sodium Hydroxide
		Hydrochloric Acid
		Citric Acid
		Sodium Diethyl dithiocarbamate
		Ammonium Hydroxide
		Copper Sulphate pentahydrate
		Amyl Alcohol or Carbon Tetrachloride
		Sodium Sulphate

		Beaker
		Separating funnel
		Alternate Method – ICP-OES Method : As given at Sl. No. 6 above.
8.	4.4, Table 1 (vi), Annex C-6 and C-8 :Lead (as Pb):	Nessler Cylinders (50 ml)
		Pipette
		Boiling water Bath
		Sodium Carbonate solid
		Nitric Acid
		Ammonium Hydroxide
		Lead Nitrate
		Oven
		Desiccator
		Glacial Acetic acid
		Sodium Sulphide/ Hydrogen sulphide gas
		Sodium Hydroxide
		Silica Dish
		Volumetric Flasks
		Alternate Method – ICP-OES Method : As given at Sl. No. 6 above.
9.	4.4, Table 1 (vii), Annex C-7 and C-8 :Arsenic (as As ₂ O ₃):	Absorption apparatus (Modified Gutzeit method)
		Spectrophotometer
		Filter Paper
		Hydrochloric Acid
		Potassium Iodide
		Stannous Chloride
		Zinc granules
		Arsenic trioxide
		Sodium Hydroxide
		Silver diethyldithiocarbamate
		Rectified Spirit
		Mercuric Bromide
		Cotton Wool
		Sulphuric Acid
		Lead Acetate
		Amber glass bottle
		Alternate Method – ICP-OES Method : As given at Sl. No. 6 above.
10.	Misc	Other standard laboratory glassware, equipment and reagents

- *The above list is indicative only and may not be taken as exhaustive.*
- *The least count, range, and other specifications of the equipment, reagents etc. shall be as specified in the standard.*

ANNEX -B
SCHEME OF INSPECTION AND TESTING
TO THE PRODUCT MANUAL FOR
STABILIZED HYDROGEN PEROXIDE- SPECIFICATION
AS PER IS 2080: 2021

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 licence, shall be marked on each container provided always that the product so marked conform to requirements of the specification.
 - 3.1 **Packing** - The material shall be packed in suitable form of packing as agreed between the purchaser and the supplier, in line with the provisions of Clause 5.1 of IS 2080:2021.
 - 3.2 **Marking** - The containers (bottles, carboys) shall bear legibly and indelibly the information as mentioned under clause 5.2 of IS 2080:2021. In addition, the following details shall be mentioned on each container:
 - i) BIS Licence No. (CM/L.....)
 - ii) For details of BIS certification details please visit www.bis.gov.in
 - 3.2.1 If the product is transported and supplied in containers (bottles, carboys), the provisions of clause 5.1.2 and clause 5.1.2.1 of IS 2080:2021 to be maintained and the Standard Mark as given in Schedule of the licence and Licence Number (i.e. CM/L.....) shall be incorporated on each container, provided always that the product thus marked conforms to all the requirement of the specification. The containers shall also prominently display the words ‘CORROSIVE, HANDLE WITH CARE’ and the appropriate symbol for labelling of dangerous goods prescribed in IS 1260 (Part 1), as per provisions of clause 5.2.1 of IS 2080:2021.
 - 3.2.2 If the product is transported and supplied in bulk tankers, the provisions of clause 5.1.2 and clause 5.1.2.1 of IS 2080:2021 to be maintained and 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 tanker as per the format at Appendix-1 enclosed, provided always that the product thus marked conforms to all the requirement of the specification.
4. **CONTROL UNIT:** For the purpose of this product, whole production of the same grade carried out in a day 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 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.
6. **STORAGE AND HANDLING:** The product shall be handled and stored as per provisions of Clause 5.1.4, 5.1.5 and 5.1.6 of IS 2080:2021 to avoid the risk of violent decomposition, explosion or any other accident.
7. **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. While disposing of the material, adequate safety precautions shall be ensured.

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
		Clause	Reference				
4.1	Description	4.1	IS 2080 : 2021	R	Two	Each Control Unit	If sample fails, control unit shall not be marked
4.2	Strength	Annex – A or C-9	-do-	R	Two	-do-	
4.3	Stability	Annex - B	-do-	R	One	-do-	
4.4 & Table 1	Acidity (as H ₂ SO ₄)	C-1	-do-	R	One	-do-	
-do-	Residue on Evaporation	C-2	-do-	R	One	Once in a month	If sample fails, control unit shall not be marked and frequency shall be increased to every control unit till 5 consecutive control unit passes.
-do-	Residue on Ignition	C-3	-do-	R	One	-do-	
-do-	Iron (as Fe)	C-4 or C-8	-do-	R	One	-do-	
-do-	Copper (Cu)	C-5 or C-8	-do-	R	One	-do-	
-do-	Lead (as Pb)	C-6 or C-8	-do-	R	One	-do-	
-do-	Arsenic (as As ₂ O ₃)	C-7 or C-8	-do-	R	One	-do-	

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.

Appendix-1
TEST CERTIFICATE FORMAT
XYZ COMPANY
TEST CERTIFICATE FOR
STABILIZED HYDROGEN PEROXIDE

TEST CERTIFICATE NO. _____ DATED _____

SUPPLIED TO M/s _____

It is certified that the material described below fully conforms to IS 2080 : 2021.

The properties of the product, as tested in accordance with the Scheme of Inspection and Testing contained in the BIS Certification Marks Licence No. CM/L _____ are as indicated below against each order no. etc.

(PLEASE REFER TO IS 2080 : 2021 FOR DETAILS OF SPECIFICATION REQUIREMENTS)

TEST RESULTS

Order no and date	Name and Grade of material	Requirement	Observed Value	Control Unit/Batch Number	Month and Year of Packaging	Quantity (in kgs/MT)	Remarks
		Enclose sheet containing requirement wise observed values of all requirements of the Indian Standards					

The material supplied conforms to specified requirements of IS 2080.

REMARKS:

WAGON/TRUCK NOS

MATERIAL SUPPLIED BY

Name and Address of manufacturer:

Recognized Trade Mark if any:

BIS Licence Number:

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

MATERIAL IS CORROSIVE. HANDLE WITH CARE