

**PRODUCT MANUAL FOR
STABILIZED HYDROGEN PEROXIDE
According to IS 2080:1980**

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.	Product	:	IS :2080:1980
	Title	:	STABILIZED HYDROGEN PEROXIDE
	No. of amendments	:	One.
2.	Sampling Guidelines		
a)	Raw material	:	No specific requirement
b)	Grouping Guidelines	:	Not applicable
c)	Sample Size	:	Entire container or multiples thereof subject to a minimum of 1000 ml
3.	List of Test Equipment	:	Please refer Annex – A
4.	Scheme of Inspection and Testing	:	Please refer Annex - B
5.	Possible tests in a day	:	Description, strength, Stability, Acidity.(No independent test facility available for Stability test at present and this has to be carried out inhouse for GOL / Inclusion and during surveillance.)
6.	Scope of the Licence :		
	Licence is granted to use Standard Mark as per IS 2080:1980 with the following scope:		
	Name of the product	STABILIZED HYDROGEN PEROXIDE	
	Grade	Grade 1/2/3/4	

ANNEXURE - A
List of Test Equipment

SI No	Test used with clause reference	Test equipment and chemicals
1	3.2, Appendix -A Strength	Weighing Balance
		Conical Flask
		Burette
		Weighing Bottle (5 ml)
		Potassium Permanganate
		Sodium Oxalate
2	3.3, Appendix -B, Stability	Sulphuric Acid
		Boiling Water Bath – For Grade 1,2
		Reaction Tube – For Grade 1,2
		Liebig Condenser – For Grade 1,2
		Gas Burette – For Grade 1,2
		Levelling Tube – For Grade 1,2
		Pipette
		Nitric Acid – For Grade 1,2
		round bottomed flask (250 ml) – For Grade 3, 4
		Reflux condenser – For Grade 3, 4
		Sand Bath – For Grade 3, 4
3	3.4, Table 1 (i), C-1: Acidity:	Stop Watch
		Burette
		Pipette
		Conical flask
		Methyl red
		Methylene Blue
		Rectified Spirit
		Sodium Hydroxide
		Amber Glass bottle
100 ml beaker		
4	3.4, Table 1 (ii), C-2: Residue on Evaporation	Platinum Dish
		Balance
		Air Circulating Oven
		Cylinder
		Water Bath
5	3.4, Table 1 (iii), C-3: Residue on Ignition	Platinum Dish - 125 mls
		Balance
		Muffle Furnace
		Cylinder
6	3.4, Table 1 (iv) C-4: Iron (as Fe):	Nessler Cylinders (50 ml)

		Pipette
		Sulphuric Acid
		Citric Acid,
		Thioglycollic Acid
		Ammonia
		Ferrous Ammonium Sulphate
		Sodium Hydroxide
		Hot plate/ Burner
		100 ml graduated flask
7	3.4, Table 1 (v), C-5: Copper (as Cu):	Nessler Cylinders (50 ml)
		Pipette
		Sodium Hydroxide
		Hydrochloric Acid
		Citric Acid
		Sodium Diethyl dithiocarbamate
		Ammonia
		Copper Sulphate pentahydrate
		Carbon Tetrachloride
8	3.4, Table 1 (vi), C-6: Lead (as Pb):	Nessler Cylinders (50 ml)
		Pipette
		Boiling water Bath
		Sodium Carbonate solid
		Nitric Acid
		Ammonia
		Lead Nitrate
		Glacial Acetic acid
		Sodium Sulphide/ Hydrogen sulphide gas
		Sodium Hydroxide
		Silica Dish
9	3.4, Table 1 (vii), C-7: 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

10	Misc	Sulphuric Acid Lead Acetate Amber glass bottle Other standard laboratory glassware, equipment and reagents
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- 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 - C
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 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 –

3.1 If the product is supplied in containers (carbuoys, barrels etc.), The Standard Mark as given in Schedule of the licence and Licence Number (i.e. CM/L.....) shall be incorporated on each container, and the packing and marking shall be done as per the provisions of the Indian Standard, provided always that the product thus marked conforms to all the requirement of the specification. In addition, details of BIS website shall be marked as follows on each containers: “For details of BIS certification please visit www.bis.gov.in”

3.2 If the product is supplied in bulk tankers, 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 and where the material of construction of the tanker is SS 316L or SS 304L with mirror finish surface (minimum of 320 grit finish). For Grades 1 and 2, the maximum capacity of the containers should be 2 litres, when hermetically sealed. For Grade 1, the material is only supplied in tanker with proper venting system and proper sealing to avoid any pilferages during transportation. Grade 2,3 and 4 are normally supplied in dedicated tankers or packed in barrels and carbuoys wherein proper vents and seal ring are provided on the caps. The details as per CI 4.2 of IS 2080:1980 shall also be indicated on the test certificate.

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 4 of Table 1, when tested according to the method prescribed in Appendix -A refer to the clause of Appendix A Given in table 1 .This 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 prescribed in the Indian Standard 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

(1)				(2)	(3)		
TEST DETAILS				Test equipment requirement R: required (or) S: Sub-contracting permitted	LEVELS OF CONTROL		
Clause	Requirements	Test Method			No of Samples	Frequency	Remark
		Clause	Reference				
3.1	Description	3.1	IS:2080-1980	R	Two	Each Control Unit	If sample fails, control unit shall not be marked
3.2	Strength	Appendix A	-do-	R	Two	-do-	
3.3	Stability	Appendix B	-do-	R	One	-do-	
3.4 & 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	-do-	R	One	-do-	
-do-	Copper (Cu)	C-5	-do-	R	One	-do-	
-do-	Lead (as Pb)	C-6	-do-	R	One	-do-	
-do-	Arsenic (as As ₂ O ₃)	C-7	-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 to 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 2080:1980.

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 2080:1980 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)	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