



**PRODUCT MANUAL
FOR COMMON SALT
ACCORDING TO IS 253:2014**

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 253:2014
	Title	:	Common Salt.
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	No specific requirement.
b)	Grouping Guidelines	:	NA
c)	Sample Size	:	One Kilogram (1 kg) of Salt required, for each variety, for carrying out complete testing as per IS 253:2014.
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 :		
	All tests can be carried out in a day.		
6.	Scope of the Licence :		
	Licence is granted for use of the Standard Mark as per IS 253:2014 with the following scope:		
	Name of the product	Common Salt.	
	Type/Variety	-Common Salt -Dairy Salt	

ANNEX A
TO PRODUCT MANUAL
FOR COMMON SALT
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LIST OF TEST EQUIPMENT

Major test equipment required to test as per requirements of Indian Standard

Sl No.	Test Name	Test Equipment/Chemicals Required With clause reference
1	Particle Size Cl. 3.2.2	850µm IS Sieve, Collection plate/bowl.
2	Moisture Content Cl. 3.1.2 & 3.2.3	Agate Mortar, 2.8mm IS Sieve, Dessicator, Weighing Balance (Analytical, with min. LC of 0.1 gm), Hot Air Oven (upto 400 deg C), Air tight container, Weighing bottle (about 30 ml capacity), preferably wide mouth squat.
3	Description Cl. 3.1.1 & 3.2.1	Visual analysis.
4	Determination of Ferrocyanide Cl. 3.1.3 & 3.2.4	Dilute Sulphuric Acid — About 0.5 N, Ammonium Ferrous Sulphate, Ammonium Ferric Sulphate, Analytical Weighing Balance (min. LC 0.1 gm), Filter paper, Dark bottle, Potassium Di-hydrogen Phosphate, Sodium Chloride, Muffle Furnace, Standard Potassium Ferrocyanide solution, Potassium Hydroxide, Ferrocyanide Stock Solution, Nessler cylinder graduated at 100 ml.
5	Water Insoluble Matter Cl. 3.1.4 & 3.2.5, Table 1	Petri dish, Sintered Glass crucible, Filter paper, Graduated flask, hot plate.
6	Chloride Cl. 3.1.4 & 3.2.5, Table 1	Potassium Chromate, Silver Nitrate solution, conical flask, burette, Glassware.
7	Matter Soluble in Water Cl. 3.1.4 & 3.2.5, Table 1	By Calculation (subtraction) method.
8	Calcium Cl. 3.1.4 & 3.2.4, Table 1	Calcium Carbonate, Dil. HCl, Hot Air Oven, Flask, EDTA Solution, Eriochrome Black T, Rectified Spirit, Dil. Sodium Hydroxide, Murexide, Sodium Chloride, Calcein, Thymolphthalein, Potassium Chloride, Ammonium Chloride, Ammonium Hydroxide, Magnesium Sulphate, Burettes, Pipettes.
9	Magnesium Cl. 3.1.4 & 3.2.5, Table 1	Same as required for Calcium.

10	Sulphate Cl. 3.1.4 & 3.2.5, Table 1	Dil. HCl, Barium Chloride, Whatman 42 Filter paper, Methyl Orange, Sintered Glass crucible/Gooch crucible, EDTA, Eriochrome Black T indicator, Ammonium Chloride, Ammonium Hydroxide.
11	Alkalinity Cl. 3.1.4 & 3.2.5, Table 1	HCl, Methyl Orange, Whatman Filter paper No. 1, Glassware.
12	Lead Cl. 3.1.4 & 3.2.5, Table 1	50ml Nessler Cylinder, Acetic Acid, Dil. Ammonium Hydroxide, Potassium Cyanide, Hydrogen Peroxide, Sodium Sulphide, Lead Nitrate, Conc. Nitric Acid, Graduated Flask. OR Atomic Absorption Spectrophotometer (AAS) with air-acetylene or N ₂ O-acetylene burner for flame and a Graphite Furnace for electro-thermal determinations, Hollow Cathode or Electrode-less discharge lamps for all elements, Muffle Furnace, Hot Plate (upto 300 deg C min), Quartz/Platinum dishes, Leak-proof Polystyrene bottles, Re-distilled/De-ionized Water, Sulphuric Acid, HCl, Nitric Acid, Standard Lead solution, Bunsen Burner.
13	Iron Cl. 3.1.4 & 3.2.5, Table 1	50ml Nessler Cylinder, Thioglycollic Acid, Conc. Ammonium Hydroxide, Sulphuric Acid, Ferrous Ammonium Sulphate.
14	Arsenic Cl. 3.1.4 & 3.2.5, Table 1	Arsenic Trioxide. OR Potassium Iodide, Stannous Chloride, Zn Shots, Apparatus as per Fig. 1 of IS 253, Silver Diethyl Dithio-Carbonate, Pyridine, Spectrophotometer, Absorption Tube C, Spring Clip.
15	Copper Cl. 3.1.4 & 3.2.5, Table 1	50ml Nessler Cylinder, Citric Acid, Ammonium Hydroxide, Sodium Diethyl Dithio-Carbamate, Copper Sulphate, Glassware.

List above is indicative only and may not be taken as exhaustive.

ANNEX B

**SCHEME OF INSPECTION AND TESTING
FOR COMMON SALT ACCORDING TO IS 253:2014**

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 – The Standard Mark, as given in the Schedule of the licence, shall be stenciled/printed on each package of common salt, provided always that the material in each package to which this mark is thus applied, conform to every requirement of the specification.

3.1 Packing and marking shall be done as per the provision of the Indian Standard. In addition, the following details shall be mentioned on each package legibly and indelibly:

a) BIS Licence No. CM/L_____

b) BIS website details i.e –“For details of BIS certification please visit www.bis.gov.in”.

4. CONTROL UNIT – For the purpose of this scheme, the total quantity of common salt manufactured in one drying operation shall constitute one 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.

5.1 On the basis of the test results, decision regarding the conformity otherwise of a control unit/one day's production for a given requirement of specification shall be made as follows:

5.1.1 One sample shall be drawn from every control unit and tested for the requirements of description, moisture and particle size. If the sample fails, in any of these requirements, the material shall be reprocessed. A sample taken after reprocessing shall, when tested for the requirement in which it had failed, satisfy the limits prescribed in the specification.

5.1.2 A composite sample shall be prepared from all the samples drawn from the control units manufactured in a day, which were found to have passed the requirements of description, moisture content, particle size. This sample when tested shall conform to all the other requirements of the specification, (See Table 1 of the Scheme). If the sample fails, in any of these requirements, the day's production shall be considered unfit for the purpose of marking.

5.1.3 The vacuum evaporated common salt may contain not more than 10ppm of potassium ferrocyanide or sodium ferrocyanide expressed as $K_4Fe(CN)_6$. Compliance with this limit shall be tested by the method described in A-3 of IS 253:2004.

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

(1)				(2)	(3)		
Test Details				Test equipment requirement R:Required (or) S: Subcontracting	Levels of Control		
Clause	Requirements	Test Method Cl. Ref.	Test Method IS		No. of sample	Frequency	Remark
3.1 & 3.2.1	Description	Visual	IS 253	R	One	Each control unit	See Cl. 5.1.1 of SIT
3.2.2	Particle size	3.2.2	IS 253	R	One	-do-	-do-
3.1.2 & 3.2.3	Moisture	A-2	IS 253	R	One	-do-	-do-
3.1.4 & 3.2.5, Table 1	Water insoluble matter	A-4	IS 253	R	One composite sample	One day's production	See Cl. 5.1.2 of SIT
-do-	Chloride content (as NaCl)	A-5	IS 253	R	-do-	-do-	-do-
-do-	Matter soluble in water, other than sodium chloride,	A-6	IS 253	R	-do-	-do-	-do-
-do-	Calcium	A-7	IS 253	R	-do-	-do-	-do-

-do-	Magnesium	A-7	IS 253	R	-do-	-do-	-do-
-do-	Sulphates	A-8	IS 253	R	-do-	-do-	-do-
-do-	Alkalinity	A-9	IS 253	R	-do-	-do-	-do-
-do-	Lead	ANNEX K	IS 7224	R	-do-	-do-	-do-
-do-	Iron	A-10	IS 253	R	-do-	-do-	-do-
-do-	Arsenic	A-11	IS 253	R	-do-	-do-	-do-
-do-	Copper	A-12	IS 253	R	-do-	-do-	-do-

Note-1: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control and submit his own levels of control in column 3 with proper justification for approval by BO Head.

Note-2: 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.