



**PRODUCT MANUAL  
FOR SODA ASH, TECHNICAL  
ACCORDING TO IS 251:1998**

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.	<b>Product</b>	:	IS 251:1998
	<b>Title</b>	:	Soda Ash, Technical
	<b>No. of Amendments</b>	:	1
2.	<b>Sampling Guidelines:</b>		
a)	<b>Raw material</b>	:	No specific requirement for raw material
b)	<b>Grouping guidelines</b>	:	Nil
c)	<b>Sample Size</b>	:	1kg
3.	<b>List of Test Equipment</b>	:	Please refer ANNEX –A
4.	<b>Scheme of Inspection and Testing</b>	:	Please refer ANNEX –B
5.	<b>Possible tests in a day :</b>		
	(i) Description (Cl.4.1) (ii) Bulk Density (Cl.4.2) (iii) Volatile Matter Content (Cl.4.3) (iv) Sieve Analysis(Cl.4.4) (v) Total Alkalinity(Cl.4.5, Table-1) (vi) Chloride (Cl.4.5, Table-1) (vii) Iron(Cl.4.5, Table-1)		
6.	<b>Scope of the Licence :</b>		
	“Licence is granted to use Standard Mark as per IS 251:1998with the following scope:		
	Name of the product	Soda Ash, Technical	
	Grades	Dense Grade, Medium Grade, Light Grade	

**Annex-A**  
**LIST OF TEST EQUIPMENTS & CHEMICALS**  
**FOR COPPER SULPHATE ACCORDING TO IS 261:1982**  
**Major test equipment required to test as per the Indian Standard.**

Sl. No.	Test Equipment	Tests used in with Clause Reference
1	Weighing Balance Wooden Stand Stoppered measuring Flask 250 ml	Bulk Density (Cl.4.2, Annex A)
2	BS sieve 1.7 mm BS sieve 75 micrometer	Sieve Analysis (Cl.4.4 & 4.4.1)
3	Weighing Balance , 0.01g accuracy Weighing Bottle, Hot Air Oven, 300°C Desiccators	Volatile Matter Content (Cl.4.3, Annex B)
4	Weighing Balance Burette Conical flask Sulphuric acid 1N Methyl orange indicator	Total Alkalinity (Cl.4.5, Annex C, C-3)
5	Weighing Balance Weighing Bottle, Hot Air Oven 105°C G4 Crucible Beaker 500ml Desiccators Silica gel	Matter Insoluble in Water (Cl.4.5, Annex C, C-4)
6	Weighing Balance Weighing Bottle, Hot Air Oven 105°C G4 Crucible Beaker 500ml Desiccators Silica gel Concentrated Hydrochloric Acid Barium Chloride 10%	Sulphate (Cl.4.5, Annex C, C-5)
7	Weighing Balance Burette Conical flask Concentrated Nitric acid Silver Nitrate 0.1N Nitro Benzene Ammonium thiocyanate 0.1 N Ferric Alum Indicator	Chloride (Cl.4.5, Annex C, C-6)

8	Weighing Balance, 0.01g accuracy Hot plate Spectro photometer SMF Distilled water Hydrochloric acid Hydroxyl ammonium chloride Ammonium acetate Bi pridyl solution Standard Iron solution	Iron(Cl.4.5, Annex C, C-6)
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**Note: The list above is indicative only and may not be treated as exhaustive.**

**ANNEX- B**  
**SCHEME OF INSPECTION AND TESTING**  
**FOR SODA ASH, TECHNICAL**  
**ACCORDING TO IS 251:1998**

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. **LABELLING AND MARKING** – The Standard Mark, as given in the Schedule of the licence, shall be printed/stencilled on each container of Soda Ash, Technical or printed on the label affixed to the container, provided always that the product so marked conform to requirements of the specification.
  - 3.1 Packing and marking shall be done as per the provision of IS 251:1998. In addition, the following details shall be mentioned on each container/package:-
    - a) BIS Licence No. CM/L-----.
    - b) BIS website details i.e. –“For details of BIS certification please visit [www.bis.gov.in](http://www.bis.gov.in)”.
4. **CONTROL UNIT** –For the purpose of this scheme, Soda Ash, Technical produced and packed at the silo stage in one shift 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. **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  
(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		Dense Grade	Medium Grade	Light Grade		
4.1	Description	4.1	IS 251	R	Two	Two	Two	Every control unit	
4.2	Bulk Density	Annex A	IS 251	R	One	One	One	Every control unit	
4.3	Volatile Matter Content	Annex B	IS 251	R	One	One	One	Every control unit	
4.4	Sieve Analysis	4.4 & 4.4.1	IS 251	R	Two	NA	NA	Every control unit	
4.5 & Table 1	Total Alkalinity (as Na <sub>2</sub> CO <sub>3</sub> )	Annex C, C-3	IS 251	R	Two	Two	Two	Every control unit	
4.5	Matter insoluble in water	Annex C, C-4	IS 251	R	One	One	One	Every control unit	
4.5	Sulphates (as Na <sub>2</sub> SO <sub>4</sub> )	Annex C, C-5	IS 251	R	One	One	One	Every control unit	
4.5	Chloride, percent (as NaCl)	Annex C, C-6	IS 251	R	Two	Two	Two	Every control unit	
4.5	Iron, as Fe <sub>2</sub> O <sub>3</sub>	Annex C, C-7	IS 251	R	One	One	One	Every 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. Subcontracting 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 to BO head.