



**PRODUCT MANUAL
FOR BAKING POWDER ACCORDING TO IS 1159 : 1981**

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 1159 : 1981
	Title	:	Baking Powder
	No. of Amendments	:	01
2.	Sampling Guidelines:		
a)	Raw material	:	Baking powder shall contain the materials mentioned in clause 2.1.1, 2.1.2 and 2.1.3 of IS 1159.
b)	Grouping guidelines	:	NA
c)	Sample Size	:	500 g
3.	List of Test Equipment	:	ANNEX - A
4.	Scheme of Inspection and Testing	:	ANNEX - B
5.	Possible tests in a day :		
	i. Description ii. Available carbon dioxide iii. Arsenic iv. Heavy metals		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 1159 : 1981 with the following scope:		
	Name of the product	:	Baking Powder

ANNEX-A
TO PRODUCT MANUAL
FOR BAKING POWDER ACCORDING TO IS 1159 : 1981

LIST OF TEST EQUIPMENTS

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Available carbon dioxide Cl 3.2 & Table 1 (Appendix A of IS 1159)	Method-1 Schroedter's Alkalimeter, Sulphuric Acid Method-2 Gasometric assembly as shown in Fig. 2 of Appendix-A of IS 1159, Displacement Solution, Titration assembly Bunsen burner.
2	Heavy Metal (as Lead) Cl 3.2 & Table 1 (Cl 14 of IS 6287)	Method -1 : Atomic absorption spectrophotometer, Stirring motor, Strontium solution-2%, Ternary acid mixture, Nitric acid, Lead standard solution. Method -2 : Nessler cylinders, Beaker, Acetic acid, Dilute ammonium hydroxide, Potassium cyanide solution, Sodium sulphide solution, Analytical balance (0-200 g, LC-0.01 mg), Standard lead solution.
3	Arsenic Cl 3.2 & Table 1 (Cl 13 of IS 6287)	Visual Comparison Method: Distillation apparatus, Apparatus for the determination of arsenic - as shown in Fig. 4 of IS 6287, Wide-mouth bottle - Capacity 120 ml, Glass tube, Rubber bungs, Nessler cylinders, Distilled Water, Dilute nitric acid - 30 %, Concentrated sulphuric acid - sp gr, Concentrated nitric acid - sp gr 1.42, Chloride-hydrazine-bromide mixture, Lead acetate solution – 10 % (m/v), Mercuric chloride paper, Concentrated hydrochloric acid - sp gr 1.16, Mercuric bromide solution, Conc. Hydrochloric acid, Potassium Iodide solution, Stannous chloride solution, Zinc, Strong solution of Arsenic, Analytical balance (0-200g, LC-0.01 mg) Silver Diethyldithiocarbamate Method: Evolution and absorption apparatus, Spectrophotometer or photoelectric absorptiometer, Conc. Hydrochloric acid Potassium Iodide solution, Stannous chloride solution, Zinc-granules of size 0.5 to 1.0 mm, Silver diethyldithiocarbamate solution.

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

ANNEX B
SCHEME OF INSPECTION AND TESTING
FOR BAKING POWDER ACCORDING TO IS 1159 : 1981

- 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 equipment.
- 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 Schedule of the licence shall be stenciled/printed on each container of Baking Powder or printed on the labels applied to the container, as the case may be, provided always that the material in each container to which this mark is thus applied conforms 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 container 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 baking powder obtained from one blending 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.
 - 5.2** On the basis of tests and analysis results, the decision regarding conformity or otherwise of a control unit shall be taken as follows:
 - 5.2.1** Each control unit shall be individually tested to determine conformity. If one or more samples fail to meet any of the requirements specified in the standard, the

material in the control unit represented by failed sample shall be rejected for the purpose of marking.

- 5.2.2 Rejected batches may be reprocessed if possible. However, before these are considered for marking, a sample shall be tested for all the requirements and will be considered for marking only if the sample passes all the requirements.
6. **MATERIALS** - Routine analysis of each consignment of the raw materials received in the factory shall be carried out and proper records maintained.
7. **REJECTION**- 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: Sub-contracting permitted	Levels of Control		
Clause	Requirements	Test Method Cl. Ref.	Test Method IS		No. of Samples	Frequency	Remarks
3.1	Description	3.1	IS 1159	R	Visual & Organoleptic test		
3.2 & Table 1	Available carbon dioxide	Appendix A	IS 1159	R	One	Each Control Unit	
-do-	Arsenic	Clause 13	IS 6287	R	-do-	-do-	
-do-	Heavy Metal (as Pb)	Clause 14	IS 6287	R	-do-	-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.