



उत्पाद मानुयल
BAKING POWDER - SPECIFICATION
IS 1159:2023 के अनुसार

PRODUCT MANUAL FOR
BAKING POWDER - SPECIFICATION
ACCORDING TO IS 1159:2023

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 1159: 2023
	शीर्षक Title	:	Baking Powder - Specification
	संशोधन संख्या No. of Amendments	:	Nil
2.	नमूनाकरण दिशा निर्देश Sampling Guidelines:		
a)	कच्चा माल Raw material	:	Manufacturer to submit declaration/ undertaking with respect to usage of ingredients as per Clause 3.2.1.1 (for Sodium bicarbonate), 3.2.1.2(for edible starch and neutral materials) and 3.2.1.3 (for Acid Reacting component) of IS 1159:2023.
b)	समूहिकरण दिशा निर्देश Grouping guidelines	:	Not applicable
c)	नमूनेका परिमाण Sample Size	:	500 g
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	कृपया Annex-ए देखें Please refer ANNEX – A
4.	निरीक्षण व परीक्षण स्कीम Scheme of Inspection and Testing	:	कृपया Annex-B देखें Please refer ANNEX – B
5.	एक दिन में संभावित परीक्षण Possible tests in a day :		

	i. Moisture ii. Available carbon dioxide iii. Arsenic iv. Lead	
6.	लाइसेन्स का कार्यक्षेत्र / Scope of the Licence :	
	IS 1159: 2023 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 IS 1159: 2023 with the following scope:	
	उत्पाद का नाम Name of the product	Baking Powder

BUREAU OF INDIAN STANDARDS
Manak Bhawan,
9, Bahadur Shah Zafar Marg,
New Delhi – 110002

ANNEX-A
TO PRODUCT MANUAL
FOR BAKING POWDER - SPECIFICATION
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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	Moisture	Tared aluminium flat dish with cover, vacuum oven, desiccator
2	Available carbondioxide Cl 3.3 & Table 1 (Annex B of IS 1159)	Method-1 Schroedter's Alkalimeter, Sulphuric Acid OR Method-2 Gasometric assembly as shown in Fig. 2 of Annex-B of IS 1159, Displacement Solution, Titration assembly, Bunsen burner.
3	Arsenic Cl 3.3 & Table 1	<u>Method as per IS 6287</u> 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) OR <u>Method as per IS 6287</u> 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 1.0mm, Silverdiethyldithiocarbamate solution. OR <u>Method as per IS 1699 (Clause 15 -Hydride generation technique)</u> Atomic absorption spectrophotometer, Nitric acid, Perchloric acid, Sulphuric acid, Hydrochloric acid, Water - metal-free, Sodium sulphate, Sodium borohydride pellets, Potassium chloride, Standard arsenic solution OR

		<u>Method as per IS 1699 (Clause 15.2.2)</u> Distillation apparatus - as per Fig. 6, Conical flask, Sulphuric acid, Potassium permanganate solution, Ferrous sulphate, Hydrochloric acid, Potassium bromide solution, Aluminium strips - 8 mm x 8 mm x 1 mm, Tin chloride solution, Test paper OR <u>Method as per IS 11124</u> Atomic Absorption Spectrophotometer, Vapour Generation Kit, Concentrated Hydrochloric Acid, Concentrated Nitric Acid, Concentrated Sulphuric Acid, Potassium Iodide, Sodium Borohydride – Pellets, Standard arsenic solution
4	Lead Cl 3.3 & Table 1	<u>Method as per IS 6287</u> Method -1: Atomic absorption spectrophotometer, Stirring motor, Strontium solution-2%, Ternary acid mixture, Nitric acid, Lead standard solution. OR <u>Method as per IS 6287</u> 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. OR <u>Method as per Annex-G of IS 2124</u> <u>Method A(Visual Colour Comparison)</u> Nessler Cylinder, Concentrated Hydrochloric Acid, Standard Lead solution, Acetic Acid, Hydrogen Sulphide Solution OR <u>Method as per Annex-G of IS 2124</u> <u>Method B (Spectrophotometric Method)</u> Standard Laboratory Apparatus, Separating Funnels (250 ml), Spectrophotometer or Photocolorimeter, Standard lead solution, Chloroform, Dithizone Reagent, Ammonia-Cyanide-Sulphite Reagent, Hydrochloric Acid Solution OR <u>Method as per IS 12074</u> Atomic absorption spectrophotometer, Pure Lead Metal, Concentrated Nitric Acid, Concentrated Hydrochloric Acid, Standard lead solution

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

**ANNEX B
TO PRODUCT MANUAL
FOR BAKING POWDER - SPECIFICATION
ACCORDING TO IS 1159:2023
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 and implement 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 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**— The material shall be packed in accordance with the provisions of Clause 4 of IS 1159:2023.
 - 3.2 **MARKING-** Marking shall be done as per the provision of Clause 5.1 of IS 1159:2023. 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, blended and manufactured from the same source of raw materials, 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. **HYGIENIC CONDITIONS** – The product shall be manufactured and packed under hygienic conditions as per provisions of clause 3.5 of IS 1159:2023, cross-referred to IS 2491.
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	Firm to have adequate in-process controls to check compliance of this parameter as per the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
3.3 & Table 1	Moisture	Clause 5	IS 6287	R	One	Each Control Unit	
3.3 & Table 1	Available carbon dioxide	Annex B	IS 1159	R	One	Each Control Unit	
3.3 & Table 1	Arsenic	Clause 12 of IS 6287 or Clause 15 of IS 1699	IS 6287 or IS 1699 or IS 11124	R	One	Each Control Unit	
3.3 & Table 1	Lead	Clause 13 of IS 6287 or Annex G of IS 2124	IS 6287 or IS 2124 or IS 12074	R	One	Each 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. 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.