



**PRODUCT MANUAL FOR  
STABLE BLEACHING POWDER  
PART 2 TREATMENT OF WATER INTENDED FOR DRINKING**

**ACCORDING TO IS 1065 (Part 2):2019**

*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>	:	1065 (Part 2):2019
	<b>Title</b>	:	Stable Bleaching Powder- Part 2 Treatment of water intended for drinking
	<b>No. of Amendments</b>	:	NIL
2.	<b>Sampling Guidelines:</b>		
a)	Raw material	:	NA
b)	Grouping guidelines	:	Na – Sample of each grade to be tested
c)	Sample Size	:	2 Bags of 500 g each
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>		
	All tests except moisture content and keeping quality specified in IS 1065 (Part 2):2019		
6.	<b>Scope of the Licence:</b>		
	Licence is granted to use Standard Mark as per IS 1065 (Part 2):2019 with the following scope:		
	Name of the product		Stable Bleaching Powder- Part 2 Treatment of Water intended for Drinking
	Grade		Type 1 and/or Type 2

**ANNEX – A**  
**LIST OF TEST EQUIPMENTS**

**Major test equipment required to test as per requirement of Indian Standard.**

<b>Sr. No</b>	<b>Test equipment / chemical/ glassware</b>	<b>Range and L.C</b>	<b>CI No. of Test Requirement</b>
1.	Weighing Balance	0-200g, 1 mg	Tests in Table 1
2.	Hot air oven	Range 0-250°C, L.C.- 1°C	Table 1 (i)
3.	Pestle and mortar		Table 1 (ii)
4.	Vacuum desiccator with pressure gauge and vacuum pump	30 to 40 mm of mercury	Table 1 (iii)
5.	Sieve	1.70 mm IS sieve	Table 1 (iv)
6.	Water bath	Range 0-150°C L.C.-1°C	Table 1 (ii)
7.	Glass Thermometer	Range 0-250°C L.C.-1°C	
8.	Burette	50 ml	Table 1 (i)
9.	Iodometric Flask	250ml	Table 1 (i)
10.	Volumetric Flask	1 ltr	Tests in Table 1
11.	Stoppered flask	250ml	Tests in Table 1
12.	Graduated Pipette	25ml	Tests in Table 1
13.	Bulb pipette	25ml	Tests in Table 1
14.	Measuring cylinder	100ml	Tests in Table 1
15.	Test tube	150mm long and 25mm in diameter	Tests in Table 1
16.	Air condenser, glass tube	375mm long and 5mm in diameter	Tests in Table 1
17.	Rubber stoppers		Tests in Table 1
18.	Weighing glass		Tests in Table 1
19.	Potassium Dichromate	AR Grades	Table 1 (i)
20.	Sodium Thiosulphate	AR Grades	Table 1 (i)
21.	Potassium Iodide	AR Grades	Table 1 (i)
22.	Hydrochloric Acid	AR Grades	Table 1 (i)
23.	Sodium Bicarbonate	AR Grades	Table 1 (i)
24.	Starch Indicator	AR Grades	Table 1 (i)
25.	Glacial Acetic Acid	AR Grades	Table 1 (i)
26.	Fused Anhydrous Calcium chloride	LR Grades	Table 1 (iii)
27.	ICP-OES (Inductively Coupled Plasma Optical Emission Spectrometer)	-	Table 1 (v to viii , x & xi)

28	Atomic Absorption Spectrophotometer	-	Table 1 (v to viii, x & xi)
29	Nessler Cylinder	100ml	
30	Pure Lead Metal	LR Grade	Table (v)
31	Concentrated Nitric Acid	LR Grade	-do-
32	Acetic Acid	LR Grade	-do-
33	Distilled water	LR Grade	-do-
34	Hydrogen Sulphide Gas	LR Grade	-do-
35	Brominated Hydrochloric acid	LR Grade	Table (vi)
36	Stannous Chloride Solution	LR Grade	-do-
37	Concentrated Sulphuric acid	LR Grade	-do-
38	Dilute Sulphuric Acid	LR Grade	-do-
39	Potassium Iodide	LR Grade	-do-
40	Sodium Borohydride	LR Grade	-do-
41	Standard Arsenic solution (1000 ppb)	LR Grade	-do-
42	Apparatus for modified Gutzeit method (Fig 1 of IS 2088) / Apparatus for Silver Diethyldithiocarbamate method (Fig 2,3 and 4 of IS 2088)		-do-
43	Lead Acetate Solution	LR Grade	-do-
44	Lead Acetate Paper Strips	LR Grade	-do-
45	Mercury Bromide Solution	LR Grade	-do-
46	Sensitized Mercury Bromide Paper Strips	LR Grade	-do-
47	Zinc	LR Grade	-do-
48	Standard Manganese Solution	LR Grade	Table 1 (vii)
49	Dilute Hydrochloric acid	LR Grade	-do-
50	Dilute Nitric acid	LR Grade	-do-
51	Dilute Phosphoric Acid	LR Grade	-do-
52	Potassium Periodate	LR Grade	-do-
53	Phthalic Anhydride	LR Grade	Table 1 (viii)
54	Diphenyl Carbazide Reagent	LR Grade	-do-
55	Ethanol	LR Grade	-do-
56	Potassium Iodide Solution	LR Grade	-do-
57	Sodium Hydroxide Solution	LR Grade	-do-
58	Neutral Sodium Sulphite Solution	LR Grade	-do-
59	Potassium Dichromate	LR Grade	-do-
60	Aluminium Solution	LR Grade	-do-
61	Bromine Water	LR Grade	-do-
62	Potassium Dichromate	LR Grade	-do-
63	Mercury Analyser	-	Table 1 (ix)

64	Hydroxylamine Hydrochloride	LR Grade	-do-
65	Mercuric Chloride	LR Grade	-do-
66	Stannous Chloride	LR Grade	-do-
67	Sodium Hydroxide	LR Grade	-do-
68	Potassium Dichromate	LR Grade	-do-
69	Potassium Permanganate	LR Grade	-do-
70	Cadmium Solution	LR Grade	Table 1 (x)
71	Methyl Isobutyl Ketone	LR Grade	-do-
72	Centrifuge	-	Table 1 (xi)
73	Centrifuge Bottles	-	-do-
74	Stock Selenium Solution	LR Grade	-do-
75	Cyclohexane	LR Grade	-do-
76	Ammonium Hydroxide	LR Grade	-do-
77	2-3 Diaminonaphthalene solution	LR Grade	-do-
78	Hydroxylamine+ EDTA Solution	LR Grade	-do-
79	Amberlite XAD-8	LR Grade	-do-
80	pH 1.6 & pH 12 solution		-do-

**The list above is indicative only and not meant to be exhaustive**

## **ANNEX – B**

### **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 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 the Schedule of the license shall be stencilled on each bag of Bleaching Powder or printed on the label applied to it, provided that the material in the bag thus marked conforms to the requirement of the specification.
  - 3.1 Packing and Marking shall be done as per the provisions of IS 1065 (Part 2). In addition, details of BIS Certification i.e BIS Licence Number CM/L—and website shall be marked on the package as follows —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, the entire quantity of Bleaching Powder of the same grade manufactured from the slaked lime charged in the chlorinator at a time 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 Standard and covered by the licence should be marked with Standard Mark.
6. **Storage:** While storing the material should be kept away from any heat source.
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.

**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		
Clause	Requirements	Test Method			No. of Samples	Frequency	Remarks
		Clause	Reference				
5.1, 5.2	Manufacture and Description	5.1, 5.2	IS 1065 (Pt.2):2019	R	One Composite Sample	Each Control Unit	
5.3 & Table 1	i) Available chlorine	Annex A	IS 1065 (Pt.1):2019	R	-do-	-do-	
-do-	ii) Stability, loss of Chlorine on the basis of initial available chlorine	Annex B	-do-	R	-do-	-do-	
-do-	iii)Moisture, percent by mass.	Annex C	-do-	R	-do-	-do-	
-do-	iv) Particle size (Passing through 170 mm IS Sieve). Percent by mass	Annex D	-do-	R	-do-	-do-	
-do-	v) Lead (as Pb) ppm	Annex A	IS 11673 ( Part2):2019	S	One	Once in month	
-do-	vi) Arsenic (as As) ppm	Annex B	-do-	S	-do-	Once in month	
-do-	vii) Manganese (as Mn) ppm	Annex D	-do-	S	-do-	Once in month	

-do-	viii) Chromium (as Cr6+ ) ppm	Annex E	-do-	S	-do-	Once in month	
-do-	ix) Mercury (as Hg) ppm	Annex C	-do-	S	-do-	Once in month	
-do-	x) Cadmium (as Cd ) ppm		IS 3025 ( Part 41)	S	-do-	Once in month	
-do-	xi) Selenium (as Se) ppm		IS 3025 ( Part 56)	S	-do-	Once in month	
5.4	Keeping Quality	Annex A	IS 1065 (Pt.1):2019	R	-do-	One day Production	

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 empanelled 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