

**BUREAU OF INDIAN STANDARDS**

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***Draft Indian Standard***

**SHOWER GEL (BODY WASH) — SPECIFICATION**

(ICS 71.100.70)

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Cosmetics Sectional Committee,  
PCD 19

Last date for Comments:  
**28 October 2023**

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**FOREWORD**

*(Formal clauses will be added later)*

Shower Gel / Body wash as a cosmetic product has been established in Indian market in recent times. There is an increase in its consumption, both in the local market and the international markets. Products like intimate hygiene wash is not included in this standard as it is not meant to be used on the entire body.

The composition of the Committee, responsible for the formulation of this standard is given at Annex D (will be added later).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*).’ The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

**1 SCOPE**

This standard prescribes the requirements and the methods of sampling and test for Shower Gel / Body wash.

**2 REFERENCES**

The standards which are necessary adjuncts to this standard are listed below. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standard:

<i>Indian/ International Standard No.</i>	<i>Title</i>
IS 2088 : 2023	Methods for determination of arsenic ( <i>Third Revision</i> )

IS 3958 : 2021	Methods of sampling cosmetics ( <i>Second Revision</i> )
IS 4011 : 2018	Methods of test for safety evaluation of cosmetics ( <i>Third Revision</i> )
IS 4707	Classification of cosmetic raw materials and adjuncts
(Part 1) : 2020	Colourants ( <i>Fourth Revision</i> )
(Part 2) : 2017	List of raw materials generally not recognized as safe for use in cosmetics ( <i>Fourth Revision</i> )
IS 14648 : 2011	Microbiological examination of cosmetics and cosmetic raw materials — Methods of test ( <i>Second Revision</i> )
IS 16913 : 2018	Methods of test for cosmetics — Determination of heavy metals (Arsenic, Cadmium, Lead and Mercury) by Atomic Absorption Spectrometry (AAS)

## REQUIREMENTS

**3.1 Description** — Shower Gel/Body wash is a topical preparation intended for application on unbroken skin.

### 3.2 Ingredients

**3.2.1** Unless specified otherwise, all the raw materials used in the manufacture of Shower Gel / Body wash shall conform to the requirements prescribed in the relevant Indian Standards where such standards exist.

**3.2.2** All ingredients of Shower Gel/ Body wash shall comply with the provisions of IS 4707 (Part 1) and IS 4707 (Part 2) subject to the provisions of *the Drugs and Cosmetics Act, 1940* and Rules framed there under.

**3.2.3** For safety evaluation of novel ingredients used in formulation of Shower Gel/Body wash, it shall comply to IS 4011.

**3.3** The Shower Gel/Body wash shall also comply with the requirements given in Table 1 when tested according to the methods referenced in col 3 and 4 of Table 1.

**Table 1 Requirements for Shower Gel/ Body wash**

(*Clause 3.3*)

Sl, No.	Characteristic	Requirement for Surfactant based Shower Gel/Body wash Type-1	Requirement for soap based Shower Gel/Body wash Type II	Method of Test Ref to Annex/ IS	
				(5)	(6)
(1)	(2)	(3)	(4)	(5)	(6)
i)	pH at (27 ± 2)°C	4.0 to 8.0	7.0 to 10.5	A	IS 2711

ii)	Heavy metals (as lead), parts per million, <i>Max</i> <sup>1)</sup>	20	20	B	IS 16913
iii)	Arsenic (as As <sub>2</sub> O <sub>3</sub> ), parts per million, <i>Max</i> <sup>2)</sup>	2	2	C	IS 16913 or IS 17495
iv)	Mercury, parts per million, <i>Max</i>	1	1	--	IS 16913 or IS 17495
v)	Microbial limit				
	a) Total microbial count, CFU/g, <i>Max</i>	1000	1000		IS 14648
	b) Yeast and mould count, CFU/g, <i>Max</i>	100	100		IS 14648
	c) Escherichia coli, per gram	Absent	Absent		IS 14648
	d) Pseudomonas aeruginosa, per gram	Absent	Absent		IS 14648
	e) Staphylococcus aureus, per gram	Absent	Absent		IS 14648
	f) Candida albicans, per gram	Absent	Absent		IS 14648
NOTES					
1) In the event of any dispute, Colorimetric method mentioned in Annex B would be treated as referee method.					
2) In the event of any dispute, Colorimetric method mentioned in Annex C would be treated as referee method.					

## 4. PACKING AND MARKING

### 4.1 Packing

The Shower Gel/Body wash shall be packed in suitable well-closed containers.

### 4.2 Marking

The containers shall be legibly marked with the following information:

- a) Name of the material;
- b) Manufacturer's name and its recognized trade-mark, if any;
- c) Net content;
- d) Batch number;
- e) Use before or expiry date as per statutory requirements;
- f) List of ingredients, as per statutory requirements;
- g) Any other information required by statutory authorities.

### 4.3 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*,

2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

## **5 SAMPLING**

**5.1** Representative samples of the product shall be drawn as prescribed in IS 3958.

**5.2** Test for all characteristics shall be carried out on the composite sample.

**5.3** The product shall be taken to have conformed to the specification if the composite sample passes all the tests.

## **6 QUALITY OF REAGENTS**

**6.1** Unless specified otherwise, pure chemicals and distilled water [see IS 1070 : 1992 'Reagent grade water (third revision)'] shall be employed in tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the result of analysis.

### **ANNEX A** [Table 1, Sl. No. (ii)] **DETERMINATION OF pH**

#### **A-1 APPARATUS**

A pH meter, preferably equipped with a glass electrode.

#### **A-2 PROCEDURE**

Take 10 g of the material in a 150 ml beaker and add 90 ml of freshly boiled and cooled water. Stir well to make a thorough suspension. Determine the pH of the suspension using a pH meter within 5 min of making the suspension. In case of a material which does not wet, the pH shall be determined on the filtrate.

### **ANNEX B** [Table 1, Sl No. (ii)] **TEST FOR HEAVY METALS**

#### **B-1 OUTLINE OF THE METHOD**

The colour produced with hydrogen sulphide solution is matched against that obtained with standard lead solution.

#### **B-2 APPARATUS**

**B-2.1 Nessler Cylinders** — 50-ml capacity.

#### **B-3 REAGENTS**

**B-3.1 Dilute Hydrochloric Acid** — Approximately 5 N.

**B-3.2 Dilute Acetic Acid** — Approximately 1 N.

**B-3.3 Hydrogen Sulphide Solution** — Standard.

**B-3.4 Standard Lead Solution** — Dissolve 1.600 g of lead nitrate in water and make up the solution to 1 000 ml. Pipette out 10 ml of the solution and dilute again to 1 000 ml with water. One milliliter of this solution contain 0.01 mg of lead (as Pb).

#### **B-4 PROCEDURE**

**B-4.1** Weigh about 2.000 g of material in a crucible and heat on a hot plate and then in a muffle furnace to ignite it at 600°C to constant mass. Add 3 ml of dilute hydrochloric acid, warm (wait till no more dissolution occurs) and make up the volume to 100 ml. Filter the solution. Transfer 25 ml of the filtrate into a Nessler's cylinder. In the second Nessler's cylinder, add 2 ml of dilute acetic acid, 1.0 ml of standard lead solution and make up the volume with water to 25 ml.

**B-4.2** Add 10 ml of hydrogen sulphide solution to each Nessler cylinder and make up the volume with water to 50 ml. Mix and allow to stand for 10 min. Compare the colour produced in the two Nessler's cylinders. Blank determination without samples are recommended to avoid errors arising out of reagents.

#### **B-5 RESULTS**

The sample may be taken to have passed the test, if the colour developed in the sample solution is less than that of standard solution.

### **ANNEX C** [Table 1 S1.No. (iii)] **DETERMINATION OF ARSENIC**

#### **C-1 OUTLINE OF THE METHOD**

Arsenic present in a solution of the material is reduced to arsine, which is made to react with mercuric bromide paper. The stain produced is compared with a standard stain.

#### **C-2 REAGENTS**

**C-2.1 Mixed Acid** — Dilute one volume of concentrated sulphuric acid with four volumes of water. Add 10 g of sodium chloride for each 100 ml of the solution.

#### **C-2.2 Ferric Ammonium Sulphate Solution**

Dissolve 64 g of ferric ammonium sulphate in water containing 10 ml of mixed acid and make up to one liter.

**C-2.3 Concentrated Hydrochloric Acid** [*see IS 265 : 1993 'Hydrochloric acid — Specification (fourth revision)'*]

**C-2.4 Stannous Chloride Solution** — Dissolve 80 g of stannous chloride ( $\text{SnCl}_2 \cdot 2\text{H}_2\text{O}$ ) in 100 ml of water containing 5 ml of concentrated hydrochloric acid.

**C-3 PROCEDURE**

Carry out the test as prescribed in IS 2088, adding into the Gutzeit bottle, 2 ml of ferric ammonium sulphate solution, 0.5 ml of stannous chloride solution and 25 ml of sample solution as prepared in **B-4.1**.

For comparison, prepare a stain using 0.001 mg of arsenic trioxide.