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भारतीय मानक
Indian Standard

IS 3959 : 2023

त्वचा पाउडर — विशिष्टि

(तीसरा पुनरीक्षण)

Skin Powder — Specification

(Third Revision)

ICS 71.100.70

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Cosmetics Sectional Committee, PCD 19

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Cosmetics Sectional Committee had been approved by the Petroleum, Coal and Related Products Division Council.

Skin powder is the class of products in cosmetics which customer need for freshness and uniform blemish free look.

This standard was first published in 1966 and subsequently revised in 1978 and 2004. The sectional committee decided to revise it in the light of experience gained since its publication. Skin powders should not be the cause of bacteriological and fungal contamination. This possibility may be obviated by, for instance a process of sterilization. In this revision, a requirement limit for microbial content has been specified. Important marking requirements, such as best before use, list of key ingredients on containers and ECO-Mark certification have also been incorporated in this revision.

This standard covers three types of powder, namely body powder, face powders and cool/cooling body powder. Body powders include products which are commonly known as talcum powders, dusting powders, toilet powders, deodorant powders. Face powders are basically makeup preparations which cover up blemishes and give a uniform made up look. Medicated powders, for which therapeutic claims are made (for example, prickly heat powder) are not included in this standard, since they are classified as drugs under *Drugs and Cosmetic Act*, 1940 of Government of India.

No stipulations have been made in this standard regarding the composition of skin powders. However, it is necessary that the raw materials used are such that in the concentrations in which they would be present in the finished skin powder, after interaction with other raw materials used in the formulation, they are free from any harmful effects. For determining the dermatological safety of a new formulation, or of a new raw material used in an old formulation, reference may be made to IS 4011 : 2018 ‘Methods of test for safety evaluation of cosmetics (*third revision*)’. It shall be the responsibility of the manufacturers of skin powders to satisfy themselves of the dermatological safety of their formulation before releasing the product for sale.

A scheme for labelling environment friendly products known as ECO-Mark (optional) has been introduced at the instance of the Ministry of Environment and Forests (MEF), Government of India. The ECO-Mark is being administered by the *Bureau of Indian Standards Act*, 2016 as per the resolution No. 71 dated 21 February 1991 and resolution No. 768 dated 24 August 1992 notified in the Gazette of India. For a product to be eligible for marking with ECO logo, it shall also carry the Standard Mark of BIS besides meeting additional environment friendly requirements. For this purpose, the Standard Mark of BIS would be a single mark being a combination of the BIS monogram ISI and the ECO logo. Requirements for the ECO friendliness will be additional, manufacturing units will be free to opt for Standard Mark alone also.

The composition of the Committee responsible for the formulation of this standard is given in Annex L.

For the purpose of deciding whether a particular requirement of this standard is compiled 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.

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Indian Standard

SKIN POWDER — SPECIFICATION

(Third Revision)

1 SCOPE

1.1 This standard prescribes the requirements and the methods of sampling and test for skin powders.

1.2 This standard does not cover skin powder for infants, for which a separate standard (IS 5339) has been published.

2 REFERENCES

The standards listed in Annex A contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. 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 these standards.

3 TYPES

Skin powders shall be classified into three types as follows:

a) *Body powders* — shall include talcum powders, toilet powders, deodorant powders and dusting powders. These shall consist principally of a finely powdered free flowing absorbent innocuous material such as natural talc (hydrous silicate of magnesium with the formula $Mg_3Si_4O_{10}H_2O$) and may contain small amounts of perfume and colouring matter, as well as other ingredients consistent with the accepted practice in the cosmetic industry. The latter may include materials having anti-perspirant and deodorant properties;

b) *Face powders* — shall essentially be similar to body power described under (a) except that it shall be of finer particle size and free from grit; and

c) *Cool/Cooling body powders* — shall also be similar to body powder described under (a) in addition containing permitted levels of cooling actives menthol and camphor as specified in Table 1.

4 REQUIREMENTS

4.1 Body Powders and Face Powder

Shall meet the description requirement given in **3**. The dyes, colours (pigments, lakes etc) if used shall comply with the latest version of IS 4707 (Part 1). These shall not be more than sparingly soluble either in water or in oil when tested by the method prescribed in Annex B.

4.2 Ingredients

Unless specified otherwise, all the raw materials used in the manufacture of skin powders shall confirm to the requirements prescribed in the relevant Indian Standards where these exist. Other ingredients shall comply with the provisions of IS 4707 (Part 2).

4.3 For safety evaluation of novel ingredients used in formulation of a skin powder, the skin powder shall comply to IS 4011.

4.4 The material shall also comply with the requirements given in Table 1 when tested as prescribed in col (6) and col (7) of the Table 1.

4.5 Additional Requirements for ECO-Mark (Optional)

4.5.1 *General Requirements*

4.5.1.1 The product shall confirm to the requirements for quality, safety and performance given in **4.5.1.2** to **4.5.1.5**.

4.5.1.2 All the ingredients that go into the formulation of cosmetics shall comply with the provisions of IS 4707 (Part 1) and IS 4707 (Part 2). The product shall also meet the specific requirements as given in the standard.

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Table 1 Requirements for Skin Powder

(*Clause* 4.3)

Sl No. Characteristic		Requirement for			Method of Test, Ref to	
		Face Powder	Body Powder		Annex	IS No.
			Regular	Cool/Cooling Body Powder		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	Matter insoluble in boiling water, percent by mass, *Min*	90.0	90.0	90.0	C	–
ii)	Fineness:				D	–
	a) Residue on 75-micron IS sieve, percent by mass, *Max*	1.0	2.0	2.0		
	b) Residue on 150-micron IS sieve, percent by mass, *Max*	0.5	0.5	0.5		
iii)	Moisture and volatile matter, percent by mass, *Max*	3.0	2.0	5.0	E	–
iv)	*p*H of aqueous suspension	5.5 to 9.0	5.5 to 10.0	5.5 to 10.0	F	–
v)	Heavy metals (as Pb), parts per million, *Max*[1)]	20	20	20	G	or IS 16913
vi)	Arsenic (as As_2O_3), parts per million, *Max*[2)]	2	2	2	H	or IS 16913 or IS 17495
vii)	Mercury (Hg), parts per million, *Max*	1	1	1	–	IS 16913 or IS 17495
viii)	Boric acid, borates and tetra borates, percent by mass (as boric acid), *Max*[3),4)]	5	5	5	J	–
ix)	Menthol content, percent by mass, *Max*	–	–	1.0	K	–
x)	Camphor content, percent by mass, *Max*	–	–	1.50	K	–
xi)	Microbial limit:					
	a) Total microbial count, CFU/g, *Max*	<1 000 cfu			IS 14648	
	b) Yeast and mould count, CFU/g, *Max*	<100 cfu				
	c) *Pseudomonas aeruginosa*, per gram	Absent				
	d) *Escherichia coli*, per gram	Absent				
	e) *Staphylococcus aureus*, per gram	Absent				
	f) *Candida albicans*, per gram	Absent				

[1)] In the event of any dispute, Colorimetric method mentioned in Annex G would be treated as referee method.
[2)] In the event of any dispute, Colorimetric method mentioned in Annex H would be treated as referee method.
[3)] With the exception of N,N-dimethylanilinium tetrakis(pentafluorophenyl)borate CAS No. 118612-00-3).
[4)] Not to be used on peeling or irritated skin, if the concentration of free soluble borates exceeds1.5 percent by mass as boric acid. Avoid sprinkling it closer to nose and mouth area.

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4.5.1.3 The product package shall display a list of key ingredients in descending order of quality present.

4.5.1.4 The product shall not be manufactured from any carcinogenic ingredients.

4.5.1.5 The manufacturer shall produce to Bureau of Indian Standards, environmental consent clearance from the concerned State Pollution Control Board as per the provisions of the *Water* (*Prevention and Control of Pollution*) *Cess Act*, 1977 and the *Air* (*Prevention and Control Pollution*) *Act*, 1981 along with the authorization, if required under the *Environment* (*Protection*) *Act*, 1986 and the Rules made thereunder, while applying for ECO-Mark. Additionally, provisions of the *Drugs and Cosmetics Act*, 1940 and the Rules thereunder shall also be complied with.

a) Use before or expiry date as per statutory requirements;
b) List of ingredients as per statutory requirements; and
c) Any other information required by statutory authorities.

5.2.1 Where boric acid has been used in the formulation of skin powder, its container shall prominently display the following note:

CAUTION — This powder contains boric acid and is not to be used for infants.

5.2.2 Cool/cooling body powders containing Menthol and Camphor, its container shall prominently display the following note:

CAUTION — Not to be used in children less than 3 years of age.

5.2.3 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 2016, and the Rules and Regulations made thereunder. The details of conditions under which the license for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

5 PACKING AND MARKING

5.1 Packing

The material shall be packed in suitable well-closed containers.

5.2 Marking

The containers shall be legibly marked with the following information:

a) Name and type of material;
b) Manufacturer's name and/or his recognized trade-mark, if any;
c) Net mass of the material;
d) Month and year of manufacturing/packing;
e) Batch or lot number, in code or otherwise;

5.2.4 If the product is covered under ECO-Mark (optional), it shall be suitably marked with ECO-Mark logo besides Standard Mark scheme, it shall be clearly mentioned on the product that ECO-Mark label is applicable to contents only.

6 SAMPLING

6.1 Representative samples of the material shall be drawn as prescribed in IS 3958.

6.1.1 Tests for all the characteristics shall be carried out on the composite sample as per methods referred under col (5) of Table 1 and **4.3**.

6.1.2 The material shall be taken to have confirmed to the specification if the composite sample passes all the tests.

7 QUALITY OF REAGENTS

Unless specified otherwise, pure chemicals and distilled water (*see* IS 1070) shall be employed in tests.

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

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ANNEX A

(*Clause* 2)

LIST OF REFERRED STANDARDS

IS No.	*Title*
IS 264 : 2005	Nitric acid — Specification (*third revision*)
IS 265 : 2021	Hydrochloric acid — Specification (*fifth revision*)
IS 266 : 1993	Sulphuric acid — Specification (*third revision*)
IS 323 : 2009	Rectified spirit for industrial use — Specification (*second revision*)
IS 460 (Part 1) : 2020	Test sieves — Specification: Part 1 Wire cloth test sieves (*fourth revision*)
IS 1070 : 2023	Reagent grade water specification (*fourth revision*)
IS 2088 : 2023	Methods for determination of arsenic (*third revision*)
IS 3958 : 2021	Methods of sampling cosmetics (*second revision*)
IS 4011 : 2018	Methods of test for safety evaluation of cosmetics (*third revision*)
IS 4707 : 2020	Classification for cosmetic raw materials and adjuncts:
(Part 1) : 2020	Colourants (*fourth revision*)
(Part 2) : 2017	List of raw materials generally not recognized as safe for use in cosmetics (*fourth revision*)
IS 5339 : 2021	Skin powder for infants (*third revision*)
IS 14648 : 2011	Microbiological examination of cosmetics and cosmetic raw materials — Methods of test (*second revision*)
IS 16913 : 2018	Methods of test for cosmetics — Determination of heavy metals (arsenic, cadmium, lead and mercury) by atomic absorption spectrometry (AAS)
IS 17495 : 2021	Cosmetics — Analytical approach for screening and quantification methods for heavy metals in cosmetics

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ANNEX B

(*Clause* 4.1)

TEST FOR SOLUBILITY OF COLOURS

B-1 PROCEDURE

B-1.1 Take 1 g of the material add 50 ml of water, boil for 15 min and filter. The filtrate shall be colourless or faintly coloured

B-1.2 Take 10 g of the material and add 50 ml of rectified spirit. Boil under reflux for 15 min and filter. The filtrate shall be colourless or faintly coloured.

ANNEX C

[*Table* 1, *Sl No.* (i)]

DETERMINATION OF MATTER INSOLUBLE IN BOILING WATER

C-1 REAGENT

C-1.1 Rectified Spirit — *see* IS 323

C-2 PROCEDURE

Weigh accurately about 1 g of the material and transfer to a 500 ml beaker. If necessary, wet the material with a little rectified spirit. Add to the beaker about 200 ml of water and boil. Allow to settle and filter the supernatant liquid through a Gooch crucible sintered disc. Wash the residue in the in the beaker with water and transfer completely to the filter. Dry the residue in the crucible at 105 ºC $\pm$ 2 ºC to constant mass.

C-3 CALCULATION

Matter insoluble in boiling water, percent by mass

$$= \frac{100 \times M_1}{M}$$

where

M_1 = mass, in g, of the residue; and
M = mass, in g, of the material taken for the test.

ANNEX D

[*Table* 1, S*l No.* (ii)]

DETERMINATION OF FINENESS

D-1 REAGENT

D-1.1 Denatured Spirit — filtered

D-2 PROCEDURE

Place about 10 g of the material, accurately weighed, in a specified IS sieve and wash by means of a slow stream of running tap water and finally with fine stream from a wash bottle until as much material as would pass through the sieve has passed. In case the material is not easily wetted by water, the washing could be started with a slow stream of filtered denatured sprit. If any lumps are present, break them using a soft camel hairbrush (1.5 cm to 2.5 cm width). Completeness of washing can be checked by collecting the filtrate in a glass beaker and observe for absence of any suspended particles. Let the water drain from the sieve and then dry the sieve containing the residue in an oven for 5 min. Cool and transfer the residue on to a tared watch glass carefully using a dry soft camel hairbrush (1.5 cm to 2.5 cm width) and dry the residue to a constant mass in an oven at 105 ºC ± 2 ºC.

D-3 CALCULATION

Material retained on the specified sieve, percent by mass = $\frac{100 \times M_1}{M}$

where

M_1 = mass, in g, of the residue retained on the specified sieve; and
M = mass, in g, of the material taken for the test.

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ANNEX E

[*Table* 1, *Sl No.* (iii)]

DETERMINATION OF MOISTURE AND VOLATILE MATTER

E-1 PROCEDURE

Weigh accurately about 5 g of the material in a porcelain or glass dish, about 6 cm to 8 cm in diameter and about 2 cm to 4 cm in depth. Dry in an air oven at a temperature of 105 °C ± 2 °C to constant mass (within ± 5 mg).

E-2 CALCULATION

Moisture and volatile matter, percent by mass =

$$\frac{100 \times M_1}{M}$$

where

M_1 = loss in mass, in g, on drying; and
M = mass, in g, of the material taken for test.

ANNEX F

[*Table 1, Sl No.*(iv)]

DETERMINATION OF *p*H OF AQUEOUS SOLUTION

F-1 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 through suspension. Determine the *p*H of the suspension using a *p*H meter within 5 min of making the suspension. In case of a material which does not wet, the *p*H shall be determined on the filtrate.

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ANNEX G

[*Table 1, Sl No.* (v)]

TEST FOR HEAVY METALS

G-1 OUTLINE OF THE METHOD

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

G-2 APPARATUS

G-2.1 Nessler Cylinders — 50 ml, capacity

G-3 REAGENTS

G-3.1 Dilute Hydrochloric acid — approximately 5 N

G-3.2 Dilute Acetic acid — approximately 1 N

G-3.3 Dilute Ammonium Hydroxide — approximately 5 N

G-3.4 Hydrogen Sulphide Solution — standard

G-3.5 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 millilitre of this solution contain 0.01 mg of lead (as Pb).

G-4 PROCEDURE

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 ºC to constant mass. Add 3 ml of dilute hydrochloric acid, warm (wait until no more dissolution occurs) make up 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.

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.

G-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 the standard solution.

ANNEX H

[*Table 1, Sl No.* (vi)]

DETERMINATION OF ARSENIC

H-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.

H-2 REAGENTS

H-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.

H-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 litre.

H-2.3 Concentrated Hydrochloric Acid — *see* IS 265

H-2.4 Stannous Chloride Solution — dissolve 80 g of stannous chloride ($SnCl_2 2H_2O$) in 100 ml of water containing 5 ml of concentrated hydrochloric acid.

H-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 **G-4**.

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

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ANNEX J

[*Table* 1, Sl *No.* (viii)]

DETERMINATION OF BORATES (AS BORIC ACID)

J-1 PRINCIPLE

The sample is digested by wet digestion method using nitric acid. The elements extracted into the resulting solution are determined by ICP-OES. A reagent blank (RB) is prepared to check if any analyte contamination is present as a result of the sample preparation procedure is used.

J-2 REAGENTS AND MATERIALS

J-2.1 Concentrated Nitric Acid — analytical reagent grade, 69.5 percent (*see* IS 264)

CAUTION: CORROSIVE

J-2.2 Reagent Grade Water — *see* IS 1070

J-2.3 Acid Washed Anti-Bumping Granules

J-2.4 Filter Paper

J-3 APPARATUS AND EQUIPMENT

J-3.1 Analytical Balance — accurate to 0.1 mg

J-3.2 Glass Beakers — 250 ml

J-3.3 Watch Glasses

J-3.4 Volumetric Flasks — 100 ml

J-3.5 Centrifuge

J-4 PROCEDURE

J-4.1 Glassware Preparation

J-4.1.1 All glassware shall be cleaned by soaking in nitric acid solution (1part of concentrated nitric acid and 3 parts of reagent grade water) for 4 h or more followed by rinsing with water and storing clean.

J-4.1.2 *Cleansing Anti-Bumping Granules*

Add approximately 5 ml of concentrated nitric acid and then a few anti-bumping granules to the beaker in fume cupboard. Cover the beaker with watch glass and heat to boiling on hotplate for a few minutes. Then allow to cool the granules.

J-4.2 Sample Preparation

Accurately weigh 5 g finely powdered sample into a 250 ml beaker. Add approximately 5 ml of ethyl alcohol to the beaker for wetting the sample. Place the beaker in fume cupboard and add 5 ml of concentrated nitric acid followed by 10 ml of water. Add few acid washed anti-bumping granules to the beaker. Cover the beaker with watch glass and heat on hotplate at around 110 ºC, with occasional stirring. Allow to boil solution for 15 min. Allow to cool, transfer the supernatant solution to a 100 ml volumetric flask. Add 20 ml of water to the beaker and boil for 5 min. Cool and transfer the supernatant solution to the same volumetric flask and repeat the step two more times. Dilute the solution of volumetric flask to 100 ml with reagent water, stopper it and shake well to thoroughly mix the contents of the flask. Centrifuge a portion and filter the supernatant solution through Whatman 541 filter paper. Prepare reagent blank (RB) in the same. Measure the sample using ICP-OES and calculate the boron content.

J-5 CALCULATION

Total boron present in sample, parts per million

$$= \frac{C \times 100}{W}$$

where

C = concentration of boron measured in solution in parts per million; and

W = mass, in g, of sample.

Total boron as boric acid, percent by mass

$$= \frac{\text{Total boron present in sample (ppm)} \times 61.83}{10.81 \times 10\,000}$$

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ANNEX K

[*Table* 1, S*l No.* (ix *and* x)]

DETERMINATION OF MENTHOL AND CAMPHOR BY GAS CHROMATOGRAPHY

K-1 APPARATUS

K-1.1 GC with FID Detector

K-1.2 Measuring Cylinders

K-1.3 Pipette — 1 ml

K-1.4 Volumetric Flasks — 10 ml, 25 ml

K-2 REFERENCE STANDARDS AND REAGENTS

K-2.1 Reference Standard — menthol

K-2.2 Reference Standard — camphor

K-2.3 n-Hexane (HPLC Grade)

K-3 PREPARATION OF REFRENCE STANDARDS

K-3.1 Reference Solution of Menthol

Dissolve 5.0 g of menthol Standard in 10 ml n-Hexane to prepare working standard solution having concentration 0.5 mg/ml (500 ppm). Use the resulting solution as stock solution. Further, dilute 1 ml of stock solution to 10 ml with n-hexane. Use the resulting solution as working standard solution

K-3.2 Reference Solution of Camphor

Dissolve 5.0 mg of camphor standard in 10 ml n-Hexane to prepare working standard solution having concentration 0.5 mg/ml (500 ppm) Use the resulting solution as a stock solution. Further, dilute 1 ml of stock solution to 10 ml with n-hexane. Use the resulting solution as working standard solution.

K-4 PREPARATION OF TEST SOLUTION FOR TALC

Accurately weigh 0.25 g of the talc sample in a 25 ml volumetric flask and add 10 ml n-hexane. Close the mouth of the volumetric flask tightly with a lid and sonicate for 10 minutes with constant stirring and finally make up the volume with n-hexane. Inject the resulting solution in GC after filtration through 0.22 μm syringe filter.

K-5 INSTRUMENTAL CONDITIONS

K-5.1 Column: DB-1 column

Length 30 m, diameter 250 μm, film thickness 0.25 μm

K-5.2 Carrier Gas — nitrogen

K-5.3 Detector Temperature — 300 ºC

K-5.4 Hydrogen Flow — 30 ml/min

K-5.5 Air Flow — 400 ml/min

K-5.6 Makeup Flow (N_2) — 25 ml/min

K-5.7 Oven Temperature

Sl No.	*Rate* (ºC/min)	*Final Temperature*	*Hold Time*	*Total Run Time*
(1)	(2)	(3)	(4)	(5)
i)	-	80 ºC	2 min	2 min
ii)	5	160 ºC	2 min	20 min
iii)	10	180 ºC	0 min	22 min
iv)	15	270 ºC	0 min	28 min

K-5.8 Injector Temperature — 260 ºC

K-5.9 Split Ratio — 10 : 1

K-5.10 Diluent — n-hexane

K-5.11 Flow — 1 ml/min (constant flow)

K-5.12 Run Time — 28 min

K-5.13 Injection Volume — 1 μl

K-6 PROCEDURE

K-6.1 System Suitability Criteria

Before proceeding for the sample analysis, equilibrate the column until a stable base line is obtained. Check the percent RSD with five replicate injections of each standard solution individually and should not be more than 2.0 percent. If the above criteria is met, then proceed with the sample analysis or else make adjustments to meet the system suitability parameters.

K-6.2 GC Analysis

Inject the sample solutions in duplicate into the chromatograph. For the standard, take the data from system suitability. Record the chromatogram (as shown in Fig. 1, Fig. 2, and Fig. 3) and calculate the contents of menthol and camphor in talc.

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K-7 CALCULATION

$$\text{Menthol, percent by mass} = \frac{\text{Average area of sample}}{\text{Average area of standard}} \times \frac{\text{Dilution of standard}}{\text{Dilution of sample}} \times \frac{\text{Potency of standard}}{100} \times 100$$

$$\text{Camphor, percent by mass} = \frac{\text{Average area of sample}}{\text{Average area of standard}} \times \frac{\text{Dilution of standard}}{\text{Dilution of sample}} \times \frac{\text{Potency of standard}}{100} \times 100$$

K-8 CHROMATOGRAMS

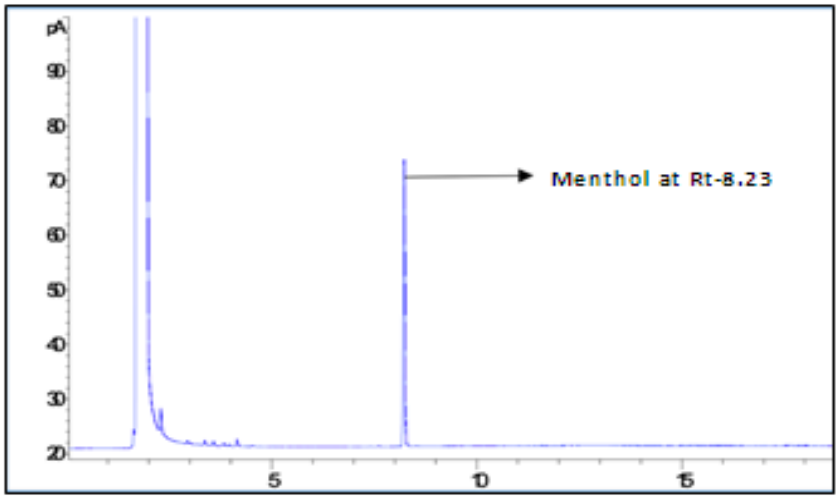

FIG. 1 GLC CHROMATOGRAM OF MENTHOL STANDARD

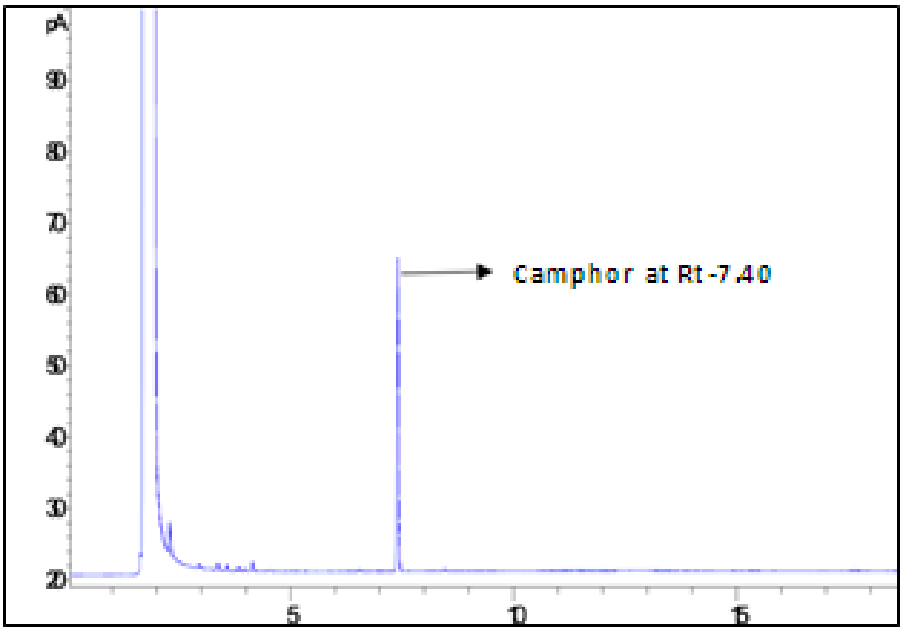

FIG. 2 GLC CHROMATOGRAM OF CAMPHOR STANDARD

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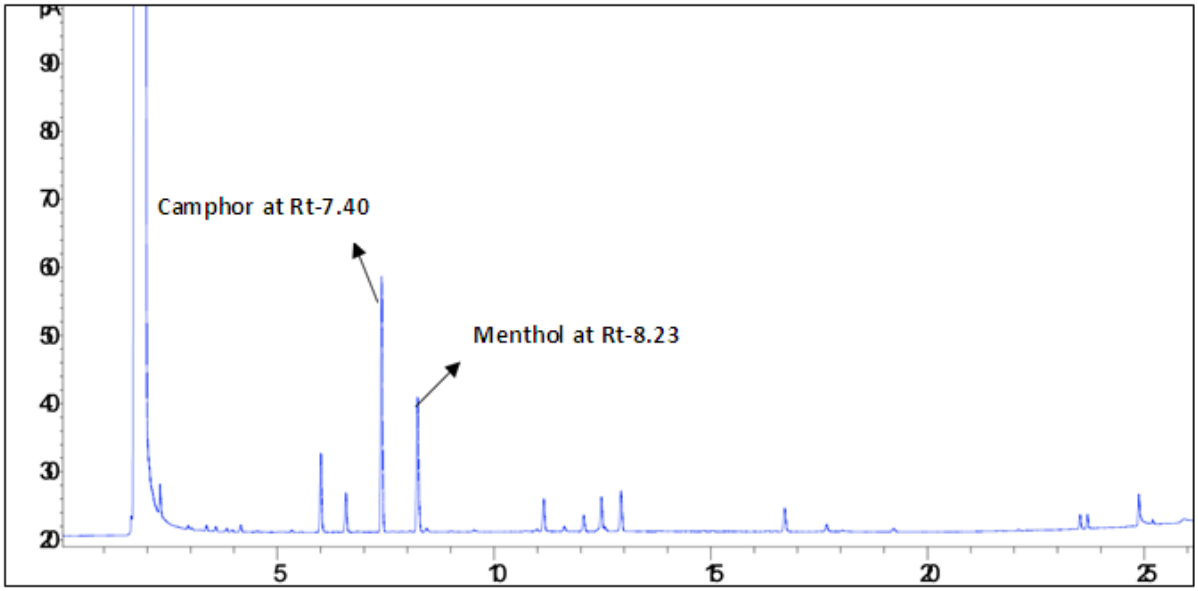

FIG. 3 GLC CHROMATOGRAM OF COOL BODY TALC

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ANNEX L

(*Foreword*)

COMMITTEE COMPOSITION

Cosmetics Sectional Committee, PCD 19

Organization	*Representative (s)*
Central Drugs Standard Control Organization, New Delhi	DR RAJEEV SINGH RAGHUVANSHI **(*Chairperson*)**
All India Cosmetic Manufacturers Association, Gurugram	MS KAJAL ANAND SHRI VIRENDRA V. CHAVAN (*Alternate*)
Cavinkare Private Limited, Chennai	DR T. KUMAR DR GIREESH KUMAR (*Alternate*)
Central Drugs Standard Control Organization, New Delhi	SHRI ASEEM SAHU MS SHRADDHA SRIVASTAVA (*Alternate*)
Central Drugs Testing Laboratory, Chennai	MS C. VIJAYA LAKSHMI
Central Drugs Testing Laboratory, Mumbai	SHRIMATI S. U. WARDE SHRIMATI SUJATA S. KAISARE (*Alternate*)
Central Revenue Control Laboratory, New Delhi	SHRI V. SURESH SHRI SHIVRAJ SINGH (*Alternate* I) SHRI MRITUNJOY MAITY *(Alternate* II)
Chemstar Limited, Thane	SHRI SUNIL JOSHI
Colgate Palmolive India Limited, Mumbai	SHRI MANAS V. VYAS MS SHRUTI HARDIKAR (*Alternate* I) SHRI PURUSHOTTAM JADHAV *(Alternate* II)
Consumer Guidance Society of India, Mumbai	DR SITARAM DIXIT DR M. S. KAMATH (*Alternate*)
Consumer Voice, New Delhi	SHRI H. WADHWA
CSIR - Indian Institute of Toxicology Research, Lucknow	DR R. S. RAY
Dabur India Limited, Sahibabad	DR A. B. PANT SHRI SONU PANWAR (*Alternate*)
Directorate of Drugs Control, Kolkata	SHRI K. R. CHAWLA
Directorate of Food and Drugs Administration, Bambolim, Goa	SHRIMATI JYOTI J. SARDESSAI
Drugs Control Department, New Delhi	SHRI A. K. NASA SHRI K. R. CHAWLA (*Alternate*)
Drugs Controller for the State of Karnataka, Bengaluru	SHRI P. RAMESH
EnvisBE Solutions Private Limited, Mumbai	SHRI BENEDICT M. MASCARENHAS

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Organization	*Representative (s)*
Food Safety and Drug Administration, Lucknow	DR ANITA BHATNAGAR JAIN SHRI DINESH KUMAR TIWARI (*Alternate*)
Food and Drugs Administration, Mumbai	SHRI O. S. SADHWANI
Food and Drugs Administration, Panchkula	SHRI MANMOHAN TANEJA
Food and Drugs Control Administration, Ahmedabad	SHRI H. G. KOSHIA SHRI V. R. SHAH (*Alternate*)
Galaxy Surfactants Limited, Mumbai	SHRI R. K. SINGH SHRI SAGAR TRAILOKYA (*Alternate* I) SHRI PRAMOD SABAT (*Alternate* II)
Godrej Consumer Products Limited, Mumbai	MS RUPINDER KAUR RAWAT DR MANOJ GAUR (*Alternate*)
Himalaya Wellness Company, Bengaluru	SHRI SUKUMARAN D. DR CHANDRIKA MAHENDRA (*Alternate*)
Hindustan Unilever Limited, Mumbai	MS VRINDA RAJWADE DR NIMISH SHAH (*Alternate*)
Hygienic Research Institute Private Limited, Mumbai	MS JAYASHREE ANAND SHRI MANOJ SARKAR (*Alternate*)
ITC Life Sciences and Technology Centre, Bengaluru	DR GURU PRASAD K. V. DR JOHN BOSCO STANISLAUS (*Alternate* I) DR JAMES BHASKAR (*Alternate* II)
Indian Beauty and Hygiene Association, Mumbai	MS MALATHI NARAYANAN
Indian Pharmacopoeia Commission, Ghaziabad	DR ANIL KUMAR TEOTIA DR MANOJ KUMAR PANDEY (*Alternate*)
Johnson and Johnson Private Limited, Mumbai	DR DILIP TRIPATHI SHRI RAJNEESH KUMAR (*Alternate*)
Kaya Limited, Mumbai	MS RUCHI SUSHEEL MITTAL MS MOHINI KUTE (*Alternate*)
Kelkar Education Trust's Scientific Research Centre, Mumbai	DR S. S. BARVE
Koel Colours Private Limited, Mumbai	SHRI DHRUBHAI DESAI SHRI RISHABH D. DESAI (*Alternate*)
Loreal India Private Limited, Mumbai	SHRI DHIMOY ROY DR GURUBASAVARAJA K. M. (*Alternate*)
MSME Testing Center, New Delhi	SHRI MANOJ KUMAR SHRI VIPUL GAIKWARD (*Alternate*)
Marico Limited, Mumbai	DR SHILPA VORA SHRI PRABODH S. HALDE (*Alternate* I) SHRI ASHISH YEKHE (*Alternate* II)
PETA India, Mumbai	DR MANILAL VALLIYATE DR ANKITA PANDEY (*Alternate*)

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Organization	*Representative (s)*
Procter and Gamble India, Mumbai	SHRI GIRISH PARHATE
Voluntary Organisation in Interest of Consumer Education (VOICE), New Delhi	SHRI M. A. U. KHAN
In Personal Capacity (*1098, 10th Cross,7th Block, HMT Layout, Vidyaranyapura, Bengaluru - 560097*)	DR SUNDARAM RAMACHANDRAN
BIS Directorate General	SHRIMATI MEENAL PASSI, SCIENTIST 'F'/SENIOR DIRECTOR AND HEAD (PETROLEUM, COAL AND RELATED PRODUCTS) [REPRESENTING DIRECTOR GENERAL (*Ex-officio*)]

Member Secretary
SHRI SOURAV MONDAL
SCIENTIST B/ASSISTANT DIRECTOR
(PETROLEUM, COAL AND RELATED PRODUCTS), BIS

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