

**SRI LANKA STANDARD 1142 : 2009**  
UDC 661.187.842

**SPECIFICATION FOR  
LIQUID TOILET SOAP**  
(First Revision)

**SRI LANKA STANDARDS INSTITUTION**



**Sri Lanka Standard**  
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**SLS 1142 : 2009**

(Attached AMD No. 1)

**Gr. 5**

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**Sri Lanka Standard  
SPECIFICATION FOR LIQUID TOILET SOAP  
(First Revision)**

## **FOREWORD**

This Standard was approved by the Sectoral Committee on Chemicals and Polymer Technology and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2009-11-30.

The demand for liquid toilet soap has increased due to the convenience in use. It shall be opaque or transparent, coloured or colourless and perfumed or unperfumed. Specification for liquid toilet soap was first published in 1996 and this First Revision prescribes test methods specified in ISO Standards under methods of test and additional marking requirements under marking.

It is necessary that the raw materials used are such that in the concentrations in which they would be present in the liquid toilet soap, after interaction with the other raw materials used in the formulation, are free from any harmful effects. It is the responsibility of the manufacturer to ensure the dermatological safety of the product.

This specification is subject to the restrictions imposed under the Cosmetics, Devices and Drugs Act No.27 of 1980, Consumer Affairs Authority Act No. 09 of 2003 and the Regulations framed there under.

For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated, expressing the results of a test or an analysis, shall be rounded off in accordance with **SLS 102**. The number of significant figures to be retained in the rounded off value shall be the same as that of the specified value in this specification.

In the preparation of this standard, the assistance obtained from the following publications is gratefully acknowledged :

ASTM D 3049 : 1989	Standard test method for synthetic anionic ingredient by cationic titration
IS 4199 : 1990	Indian standard specification for liquid toilet soap
SCCNFP/586/02	The Scientific Committee on Cosmetic Products and Non- food products intended for consumers Opinion concerning the determination of certain formaldehyde releasers in cosmetic products

## **1 SCOPE**

**1.1** This standard prescribes the requirements and methods of test for liquid toilet soap for personal hygiene.

**1.2** This specification does not cover hair shampoo, face wash and liquid soap in gel medium.

## **2 REFERENCES**

- ISO 673 Soaps – Determination of content of ethanol – insoluble matter  
ISO 684 Analysis of soaps – Determination of total free alkali  
ISO 685 Analysis of soaps – Determination of total alkali content and total fatty matter content  
SLS 102 Rules for rounding off numerical values  
SLS 428 Random sampling methods  
SLS 457 Classification of cosmetic raw materials and adjuncts  
Part 1 : Dyes, pigments and colour additives recognized as safe  
Part 2 : Raw materials and adjuncts other than dyes, pigments and colour additives generally not recognized as safe  
SLS 1316 Code of good manufacturing practices for cosmetics industry  
SLS 1349 Method for the enumeration and detection of aerobic mesophilic bacteria in cosmetics  
SLS 1350 Method for the detection of *Pseudomonas aeruginosa* in cosmetics  
SLS 1351 Method for the detection of *Staphylococcus aureus* in cosmetics

## **3 DEFINITION**

For the purpose of this standard the following definition shall apply:

**3.1 liquid toilet soap** : Liquid type personal wash products based on soaps.

## **4 REQUIREMENTS**

### **4.1 General requirements**

**4.1.1** The liquid toilet soap shall be in the form of a liquid or emulsion. It shall be of uniform consistency and free from sediments. It shall be easily spreadable and have good lathering and rinsing properties. It shall be free from objectionable odour and shall not develop such odours during storage within the declared shelf life. It shall be non-toxic and non skin irritant.

**4.1.2** The liquid toilet soap shall be manufactured by a process adhering to Good Manufacturing Practices (GMP) complying with **SLS 1316**.

**4.1.3** The liquid toilet soap shall meet performance and stability specifications given by the manufacturer based on in-vitro studies for the complete duration of the declared shelf life. The date of expiry / best before / shelf life of the finished product shall be determined based on the results of the stability.

**4.1.5** Name of detergent used shall be declared, if any detergent is used.

## 4.2 Raw materials

**4.2.1** The dyes, colours and pigments used, if any, shall comply with the provisions of **SLS 457 : Part 1**.

**4.2.2** The raw materials and adjuncts other than dyes, colours and pigments shall comply with the provisions of **SLS 457 : Part 2**.

## 4.3 Other requirements

**4.3.1** The liquid toilet soap shall comply with the requirements given in Table 1 when tested according to methods given in Column( 4) of the table.

**TABLE 1 - Requirements for liquid toilet soap**

Sl. No. (1)	Characteristic (2)	Requirement (3)	Method of Test (4)
i)	Total fatty matter, per cent by mass, min.	15	ISO 685
ii)	pH at $27 \pm 2$ °C	7.5 to 9.5	Appendix B
iii)	Matter insoluble in ethanol, per cent by mass, max.	2.0	ISO 673
iv)	Total free alkali as NaOH, per cent by mass, max.	0.04	ISO 684

**NOTE :** *Liquid toilet soap may contain synthetic surface active ingredients which improve the performance of the liquid toilet soap.*

**4.3.2** The total formaldehyde in the finish product containing formaldehyde or substances which release formaldehyde shall not exceed 0.2%.

## 4.4 Microbiological limits

The liquid toilet soap shall also comply with the microbiological limits given in Table 2, when tested according to the methods given in Column (4) of the table.

**TABLE 2 - Microbiological limits**

Sl. No. (1)	Test (2)	Limit (3)	Method of test (4)
i)	Aerobic plate count, per ml, max.	1000	SLS 1349
ii)	<i>Pseudomonas aeruginosa</i>	Absent in 10 ml	SLS 1350
iii)	<i>Staphylococcus aureus</i>	Absent in 10 ml	SLS 1351

## 5 PACKAGING AND MARKING

**5.1** The liquid toilet soap shall be packed in suitable containers. The containers shall be legibly and indelibly marked or labeled with the following:

- Name and product as ‘Liquid toilet soap’;
- Name and address of the manufacturer including country of origin (**NOTE:** *Name and address of the manufacturer and the distributors need to be marked on imported products*);
- Registered trade mark or brand name, if any;
- Net mass in grams at declared total fatty matter (TFM);
- Batch or code or lot identification number (**NOTE :** *Date of manufacture may be used as the batch no. /lot identification no. / code no. if one batch is manufactured during the day.*); and
- Date of manufacture and best before / shelf life.

**5.2** A number of such containers, as agreed to between the purchaser and the supplier, shall be suitably packed. Each package shall be legibly and indelibly marked with the following:

- Name of the product as ‘Liquid toilet soap’;
- Name and address of the manufacturer including country of origin (**NOTE:** *Name and address of the manufacturer and the distributors need to be marked on imported products*);
- Registered trade mark or brand name, if any;
- Number of containers in each package; and
- Batch or code or lot identification number (**NOTE :** *Date of manufacture may be used as the batch no. /lot identification no. / code no. if one batch is manufactured during the day.*).

## 6 METHODS OF TEST

Tests shall be carried out as prescribed in methods given in Column (4) of Table 1 and Table 2.

**NOTE :** *Attention is drawn to certification marking facilities offered by the Sri Lanka Standards Institution. See inside back cover of the standard.*



## **APPENDIX A COMPLIANCE OF A LOT**

The sampling scheme given in this appendix shall apply where compliance of a lot to the requirements of this standard has to be assessed based on statistical sampling and inspection.

Where compliance with this standard, appropriate schemes of sampling and inspection shall be adopted based on manufacturer's control systems coupled with types, tests and testing procedures.

### **A.1 LOT**

In any consignment all the containers of personal wash liquid of the same size belonging to one batch of manufacture or supply shall constitute a lot.

### **A.2 GENERAL REQUIREMENTS OF SAMPLING**

In drawing, preparing, storing and handling samples, the following precautions shall be observed:

**A.2.1** Samples shall be drawn in an environment not exposed to damp air, dust and soot.

**A.2.2** A sampling tube may be used for drawing the material from the containers. It shall be clean and dry when used.

**A.2.3** The samples shall be placed in clean, dry, glass or any other suitable container. The sample containers shall be sealed air-tight after filling and shall be marked with necessary details of sampling.

**A.2.4** The material being sampled, the samples, the sampling instrument and the sample containers shall be protected from adventitious contamination.

**A.2.5** Samples shall be stored, so that conditions of storage do not affect the quality of the material.

**A.2.6** When drawing samples for microbiological examination in addition to the requirements specified in **A.2.1** to **A.2.5** the following precautions shall be observed.

**A.2.6.1** Samples shall be drawn under aseptic conditions.

**A.2.6.2** The sampling instruments and sample containers shall be sterilized.

### A.3 SCALE OF SAMPLING

**A.3.1** Samples shall be tested from each lot for ascertaining the conformity of the material to the requirements of this specification.

**A.3.2** The number of containers to be selected from a lot shall be in accordance with Table 3.

**TABLE 3 - Scale of sampling**

No. of containers in the lot (1)	No. of containers to be selected (2)
Up to 150	3
151 to 500	5
501 to 1 200	6
1 201 to 3 200	8
3 201 and above	10

**A.3.3** If the containers are packed in packages, at least 5 per cent of the packages shall be selected from the lot and as far as possible an equal number of containers shall be drawn from each package to form the sample size as given in Column (2) of Table 3.

**A.3.4** The containers and packages shall be selected at random. Random number tables as given in SLS 428 shall be used in order to ensure randomness of selection.

### A.4 COMPOSITE SAMPLE

**A.4.1** An equal quantity of material shall be drawn from each container selected as in A.3.2. The material so obtained shall be mixed thoroughly to form a composite sample which shall be of sufficient size to carry out the tests specified in A.5.2.

**A.4.2** A separate composite sample of about 20 ml shall be prepared under the conditions specified in A.2.6 for testing microbiological limits before the preparation of the composite sample for testing other requirements.

### A.5 NUMBER OF TESTS

**A.5.1** Each container and/or package selected as in A.3.2 and/or A.3.3 shall be examined for packaging and marking requirements (see 5).

**A.5.2** The composite sample prepared as in A.4.1 shall be tested for the requirements given in 4.3.1.

**A.5.3** The composite sample prepared as in **A.4.2** shall be tested for microbiological limits given in **4.4** .

## **A.6 CRITERIA FOR CONFORMITY**

A lot shall be declared as conforming to the requirements of this specification if the following conditions are satisfied:

**A.6.1** Each container and/or package examined as in **A.5.1** satisfies the packaging and marking requirements.

**A.6.2** The composite samples tested as in **A.5.2** and **A.5.3** satisfy relevant requirements.

## **APPENDIX B DETERMINATION OF pH**

### **B.1 APPARATUS AND REAGENTS**

**B.1.1** pH meter with a glass electrode.

**B.1.2** Suitable buffer solutions

### **B.2 PROCEDURE**

Determine the pH at a temperature of  $27 \pm 2^{\circ}$  C. Read the pH directly using the pH meter. In the case of liquid toilet soap in the form of an emulsion, mix 5 g of the sample with 45 ml of water and determine the pH of the resulting solution.

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**Amendment No: 01 approved on 2013-10-02 to SLS 1142 : 2009**

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**TABLE 1 - Requirements for liquid toilet soap**

Sl. No. **ii**), Column **3**

Delete “7.5 to 9.5” and substitute “6.5 to 9.5”.



## **SRI LANKA STANDARDS INSTITUTION**

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

## **SLS CERTIFICATION MARK**

*The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI which includes surveillance inspection of the factory, testing of both factory and market samples.*

*Further particulars of the terms and conditions of the permit may be obtained from the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*

