

Amendment No: 01 approved on 2013-10-02 to SLS 34:2009

SRI LANKA STANDARD SPECIFICATION FOR TOILET SOAP (*Second Revision*)

FOREWORD

Delete “MS 8.3 : 1991 Malaysian Standard Specification for Toilet Soap”.

1 SCOPE

Delete the text given under the Scope and substitute with the following :

“

1.1 This standard prescribes the requirements and methods of sampling and test for tablets or cakes of toilet soap with or without herbs/ herbal extracts including medicated toilet soap.

1.2 This standard does not prescribe requirements related to therapeutic/ medicinal properties and claims of medicated toilet soap.

1.3 This standard does not cover carbolic soap and non soapy detergent based products.”

3 REQUIREMENTS

3.3 Other requirements

TABLE 1 – Requirements for toilet soap

Sl. No. **i)**, Column **4**

Delete “ISO 685” and substitute “Appendix C”.

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

Delete “200” and substitute “100”.

Insert Appendix **C** as follows.

“APPENDIX C DETERMINATION OF TOTAL FATTY MATTER

C.1 DEFINITION

Total fatty matter means the fatty material obtained by decomposing the soap with a strong mineral acid and extracting the separated fatty matter with diethyl ether under the operating conditions described. This term includes unsaponifiable matter, glycerides and any resinic acids contained in the soap, in addition to the fatty acids derived from the soap.

C.2 PRINCIPLE

The fatty acids are extracted with diethyl ether and titrated with a solution of sodium hydroxide in ethanol and finally weighed as soap.

C.3 REAGENTS

C.3.1 Diethyl ether (pure)

C.3.2 Ethanol, 95 per cent (V/V)

C.3.3 Sulphuric acid, 1 mol/dm³ solution

C.3.4 Sodium chloride solution, 10 g of sodium chloride dissolved in 100 ml of distilled water

C.3.5 Sodium hydroxide, (analytical grade) 0.5 mol/dm³ ethanolic solution (recently standardized)

C.3.6 Methyl orange indicator, 0.2 g in 100 ml of distilled water

C.3.7 Phenolphthalein indicator, 1 g in 100 ml of ethanol

C.4 PROCEDURE

Weigh, to the nearest mg, about 5 g of soap and dissolve it in about 150 ml of hot distilled water in a beaker of about 200 ml capacity. Pour this hot, aqueous solution into a separating funnel rinsing the beaker with small quantities of hot distilled water. Add a few drops of the methyl orange and then from a burette add the acid solution so that there is an excess of about 5 ml.

Add 100 ml of diethyl ether. Shake the mixture vigorously for one minute, and allow to stand until the two phases are completely separated.

Draw off the aqueous layer into a second separating funnel and re-extract with 50 ml of diethyl ether.

Draw off the aqueous layer. Combine the ether extracts in the first separating funnel. Wash with 50 ml portions of the sodium chloride solution, until the washings are neutral to methyl orange. Usually three washings are sufficient.

Transfer the ethereal solution to a tared flask, filtering if necessary. Wash the filter with small portions of the diethyl ether. Distil off nearly all the diethyl ether by boiling gently.

Dissolve the residue in 20 ml of the ethanol. Titrate the ethanolic solution of fatty acids with the ethanolic sodium hydroxide solution, using 2-3 drops of phenolphthalein as indicator. Record the volume used (see Note).

NOTE : *If the fatty acid colour masks the end point, this may be determined potentiometrically.*

Remove the ethanol by evaporation on a water-bath. Heat the flask in an oven at 120 °C until the difference in mass, after drying in the oven for an additional 15 minutes does not exceed 5 mg. Note the mass of the dry soap (m_2).

C.5 CALCULATION

Total fatty matter, per cent by mass, in the soap

$$= [m_2 - (V \times 0.5 \times 0.022)] \times \frac{100}{m_1}$$

where

m_1 is the mass in grammes of the test portion;

m_2 is the mass in grammes of dry soap; and

V is the volume in millilitres of ethanolic sodium hydroxide solution used.

Round off the result to the nearest 0.1 per cent.”