SRI LANKA STANDARD SLS 213 : 2007

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METHODS FOR
SAMPLING OF ESSENTIAL OILS
(FIRST REVISION)

SRI LANKA STANDARDS INSTITUTION

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Gr. 4

SRI LANKA STANDARDS INSTITUTION
No. 17, Victoria Place,
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SRI LANKA

Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This standard does not purport to include all the necessary provisions of a contract.

SRI LANKA STANDARD
METHODS FOR SAMPLING OF ESSENTIAL OILS
(FIRST REVISION)

FOREWORD

This Sri Lanka Standard was approved by the Sectoral Committee on Agriculture and Food Products and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2007-06-27.

The organoleptic, physical and chemical characteristics of batches of essential oils are determined by means of examination of the samples. A satisfactory sampling operation therefore needs to provide, for analysis, samples representative of the batches from which they originate without modification of the original composition.

This standard was first published in 1973, which has been derived from the International Organization for Standardization Recommendation, R 212. This revision has been undertaken to up-date the standard to be in line with the latest ISO standard for Essential oils – Sampling. In addition, due consideration has been given to the current procedures practicing in the country.

In the preparation of this standard, the valuable assistance derived from the following publication is gratefully acknowledged.
ISO 212 : 2007 Essential oils – Sampling

1 SCOPE

1.1 This standard prescribes the general rules for the sampling of essential oils.

1.2 In the presence of a high content of water or other foreign matter, this method may only be applicable to the "essential oil" fraction free from water and impurities.

2 DEFINITIONS

For the purpose of this standard, the following definitions shall apply :

2.1 delivery : Quantity of essential oil dispatched at a single time and forming the subject of a specific contract or dispatch document

NOTE : *The delivery may be made up of one or more batches.*

2.2 batch : Identified quantity of essential oil, assumed to have uniform characteristics, made up of one or more containers

2.3 container : Recipient constituting the whole or part of the batch and containing the essential oil to be sampled

2.4 increment : Quantity of essential oil sampled at a single time at a point in the container to be sampled

2.5 sample : Quantity of essential oil obtained by mixing the different increments of a container

NOTE : *On the basis of the samples, the laboratory may conduct its own sampling plan in view of the analysis. The sampling plan is not covered in this standard.*

3 APPARATUS

3.1 The sampling devices and the related instruments shall be made of materials which do not affect the sampled essential oil.

3.2 The type of apparatus required for sampling shall be adapted to the volume to be sampled : e.g. cylindrical probes, pipettes, bottom sampler.

4 SAMPLING

4.1 Inspection

4.1.1 The inspection shall concern the physical condition of the delivery, the integrity of the containers, the state of the guarantee systems (lead seals, crown caps, etc.), the designation and the contractual inscriptions.

4.1.2 On opening, conserve the guarantee systems.

4.2 Shaking

4.2.1 Prior to any sampling, shake the essential oil using means suited to both the volume and the shape of the recipient.

4.2.2 Essential oils that are known to crystallize or to thicken shall be slowly warmed to a suitable temperature to dissolve crystals or crystalline mass, before shaking. This action shall not alter the composition of the essential oil.

4.3 Sampling method

4.3.1 All sampling operations shall be performed immediately after an appropriate shaking.

4.3.2 Take three increments per container, as follows :
a) take the first increment from the section corresponding to 20 % of the container height ;
b) take the second between 40 % and 60 % of the container height ; and
c) take the third at over 95 % of the container height.

4.3.3 Gather together the three equal part increments and mix them. After shaking, take 30 ml, which constitute the sample.

4.3.4 In the case of very expensive essential oils, the quantities shall be defined contractually.

4.3.5 The number of samples per container for the laboratory shall be equal to the number of parts concerned plus a reference sample.

5 PACKAGING AND LABELLING OF LABORATORY SAMPLES

5.1 Packaging

Use glass or inert material bottles which protect the essential oil against light.
Pack the samples in clean, dry recipients.
The nature of the recipient shall not alter the essential oil.
Leave a headspace of 2 ml between the essential oil and the stopper to allow for expansion. This space shall not be too great in order to limit possible oxidation due to air.
Close the recipients using crown tops or new stoppers which do not have any action on the product.
Close each sample by means of a guarantee system such that it is inaccessible without breaking the seal.
Ascertain the airtightness.

5.2 Marking

The label shall be attached to each of the samples and shall bear indications enabling the traceability of the product, for example :

a) the sampling date ;
b) the nature of the product : goods and origin ;
c) the name of the supplier ;
d) the batch number ; and
e) the serial number of the sample out of the total number of containers.

The information on the label shall be marked in indelible ink.

5.3 Conservation

Store the samples intended for the laboratory, protected from light, at a temperature which guarantees their quality.

5.4 Dispatch

The packaging shall meet the requirements of the postal services or of the other bodies involved in the transport of the sample.

6 SAMPLING REPORT

6.1 The sampling report shall indicate following information ;

a) the identification of the supplier ;
b) the product identification marks ;
c) the origin ;
d) the batch number ;
e) the quantity represented in grams, kilograms or tons ;
f) the nature and the number of containers ;
g) the presence or absence of the guarantee systems ;
h) the date and time of sampling ; and
j) the name, signature and function of the person who carried out the sampling.

6.2 The sample report shall give the physical condition of the sampled essential oil. It shall also indicate the technique employed, if different from that described in this standard, as well as all circumstances which may have influenced the sampling.

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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.*

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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.

Printed at the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.