

**SRI LANKA STANDARD 313 : PART 2 / SECTION 4 : 2009**  
**UDC 665.2 : 613.268**

**METHODS FOR ANALYSIS OF ANIMAL  
AND VEGETABLE FATS AND OILS**  
**PART 2 – DETERMINATION OF CHEMICAL  
CHARACTERISTICS**  
**Section 4 : Determination of ester value**  
**(Second Revision)**

**SRI LANKA STANDARDS INSTITUTION**



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**SLS 313 : Part 2 /Section 4 : 2009**

**Gr. 3**

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**Sri Lanka**

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## **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 2009-07-23.

This standard was first published in 1976 and subsequently revised in 1993. This standard prescribes the general methods for determining whether the material conforms to the requirements of the relevant individual standards and thus form a necessary adjunct to series of Sri Lanka Standard Specification for individual oils and fats. However, keeping in view the experience gained during the years and various International standards brought out by the International Organization for Standardization (ISO) on the subject of testing animal and vegetable fats and oils, it was decided to revise it with a view to updating the existing methods of test and by incorporating those not covered earlier.

In order to accommodate large number of test methods within the scope of one standard, this standard is published in four parts covering different characteristics as indicated below.

- Part 1 Determination of physical characteristic
- Part 2 Determination of chemical characteristics
- Part 3 Determination of foreign substances and parameters affecting quality and stability
- Part 4 Determination of principle constituents and natural constituents.

## **1 SCOPE**

**1.1** This section prescribes a method for the determination of esters in fats and oils.

**1.2** This method is applicable to the animal and vegetable fats and oils. It is not applicable to waxes.

## **3 DEFINITIONS**

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

**Ester value:** The number of milligrams of potassium hydroxide required to saponify the esters contained in 1 g of the fat.

#### **4 PROCEDURE**

**4.1** Determine the acid value of the fat sample as prescribed in **SLS 313 : Part 2 / Section 6**.

**4.4** Determine the saponification value of the fat sample as prescribed in **SLS 313 : Part 2/ Section 1**.

#### **5 EXPRESSION OF RESULTS**

$$\text{Ester value} = S.V. - A.V.$$

Where,

A.V. is the acid value; and

S.V. is the saponification value

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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.

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