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Adipate esters for industrial use — Measurement of colour after heat treatment

Esters de l'acide adipique à usage industriel — Mesurage de la coloration après chauffage

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2524 was drawn up by Technical Committee ISO/TC 47, *Chemistry*, and circulated to the Member Bodies in September 1971.

It has been approved by the Member Bodies of the following countries :

Austria	Ireland	Switzerland
Belgium	Israel	Thailand
Egypt, Arab Rep. of	Netherlands	United Kingdom
France	Poland	U.S.A.
Germany	Romania	U.S.S.R.
Hungary	South Africa, Rep of	
India	Spain	

No Member Body expressed disapproval of the document.

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Adipate esters for industrial use – Measurement of colour after heat treatment

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for the measurement of colour after heat treatment of adipate esters for industrial use.

The method is applicable to simple and mixed alcohol esters that are liquid at ambient temperature.

2 REFERENCE

ISO 2211, *Liquid chemical products for industrial use – Measurement of colour in Hazen units (platinum-cobalt scale)*.

3 PRINCIPLE

Measurement of the colour of the sample after a specified heat treatment.

4 APPARATUS

Apparatus specified in ISO 2211 and :

4.1 Tube of borosilicate glass, about 200 mm long, with an external diameter of 38 ± 1 mm, walls $1,0 \pm 0,1$ mm thick, and provided with a vented cork stopper, covered with aluminium foil, or a vented ground glass stopper.

4.2 Oil bath, capable of being thermostatically controlled at 180 ± 2 °C and of a size such that this temperature is maintained when the glass tube (4.1) is introduced. A volume of about 2 000 ml of oil is suitable for testing three samples at the same time.

5 PROCEDURE

5.1 Transfer 70 ml of the laboratory sample to the glass tube (4.1) and close it with its stopper. Place it in the oil bath (4.2), controlled at 180 ± 2 °C, making sure that the temperature of the bath remains within the specified limits, and support the tube so that the surface of the test portion is 25 mm below the surface of the oil.

5.2 At the end of 120 ± 2 min, remove the tube containing the sample from the oil bath and allow it to cool, in air, to room temperature. Measure the colour of the heat-treated sample by the method specified in ISO 2211, using equal volumes of sample and standard Hazen matching solutions in, for example, 50 ml Nessler cylinders.

6 EXPRESSION OF RESULTS

See clause 8 of ISO 2211, but quote also the colour of the untreated sample, determined by the method specified in ISO 2211 (see clause 6 of ISO 2523).

7 TEST REPORT

The test report shall include the following particulars :

- the reference of the method used;
- the results and the method of expression used;
- any unusual features noted during the determination;
- any operation not included in this International Standard or the International Standard to which reference is made, or regarded as optional.

ANNEX

This document forms one of a series on methods of test for adipate esters for industrial use.

The list of documents already prepared is as follows :

ISO 2523 — *List of methods of test.*

ISO 2524 — *Measurement of colour after heat treatment.*

ISO 2525 — *Determination of acidity to phenolphthalein — Volumetric method.*

ISO 2526 — *Determination of ash — Gravimetric method.*

ISO 2527 — *Determination of ester content — Volumetric method.*