International Standard 5276

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Aromatic hydrocarbons — Test for neutrality

Hydrocarbures aromatiques — Contrôle de la neutralité

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FOREWORD

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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 5276 was developed by Technical Committee ISO/TC 78, *Aromatic hydrocarbons*, and was circulated to the member bodies in October 1977.

It has been approved by the member bodies of the following countries :

Australia	Hungary	Romania
Austria	India	South Africa, Rep. of
Brazil	Korea, Rep. of	Turkey
Chile	Mexico	United Kingdom
Czechoslovakia	Netherlands	USSR
Egypt, Arab Rep. of	Philippines	Yugoslavia
France	Poland	
Germany, F. R.	Portugal	

No member body expressed disapproval of the document.

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Aromatic hydrocarbons — Test for neutrality

WARNING — Aromatic hydrocarbons are generally toxic by inhalation, ingestion or skin absorption. Volatile aromatic hydrocarbons are also highly flammable.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for examination of the neutrality of aromatic hydrocarbons.

2 PRINCIPLE

Shaking of a test portion with water to which a mixed indicator has been added. Comparison of the colour of the aqueous layer with that of a neutral solution of the indicator.

3 REAGENTS

Use only reagents of recognized analytical grade. Only distilled water, freshly boiled and cooled in an atmosphere free from carbon dioxide, or water of equivalent purity, shall be used for preparing the reagent and throughout the examination.

3.1 Mixed indicator

Dissolve 0,04 g of bromocresol green (3′, 3″, 5′, 5″-tetrabromo-*m*-cresolsulphonephthalein, sodium salt) in 10 ml of 95 % (*V*/*V*) ethanol, and 0,2 g of alizarin red S monohydrate (3,4-dihydroxy-9,10-dioxo-2-anthracenesulphonic acid, sodium salt monohydrate) in water. Mix the two solutions and dilute to 100 ml with water. Add either 0,01 M hydrochloric acid solution or 0,01 M sodium hydroxide solution to the solution of the indicator until 0,3 ml of the indicator so treated gives the neutral shade, greyish green, when added to 10 ml of water.

4 APPARATUS

4.1 Two stoppered colorimetric cylinders, of capacity 100 ml, made of glass inert to the various products under the conditions of the test.

5 SAMPLING[1)]

Take a representative sample of not less than 1 000 ml from the bulk of the material.

6 PROCEDURE

Place 10 ml of the water in a clean cylinder (4.1) and add 0,3 ml of the indicator solution (3.1). Add 50 ml of the sample, stopper and shake the cylinder thoroughly and allow the mixture to settle. Compare the colour of the aqueous layer with the colour of the contents of a similar cylinder prepared with the indicator but without the addition of the test portion.

The sample shall be deemed to be acid when the indicator changes to a yellow shade matching that produced when the indicator is added to water adjusted to a pH value of 4,5. Similarly, the sample shall be deemed to be alkaline when the indicator changes to a violet shade matching that produced when the indicator is added to water adjusted to a pH value of 9,0.

7 EXPRESSION OF RESULTS

Report the sample as acid, alkaline or neutral.

8 TEST REPORT

The test report shall include at least the following information :

a) the type and identification of the product tested;

b) a reference to this International Standard;

c) any deviation, by agreement or otherwise, from the procedure specified;

d) the result of the test;

e) the date of the test.

1) The sampling of aromatic hydrocarbons will form the subject of ISO 1995.