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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 38730-2020

Determination of water dispersing power of surfactants in dry cleaning solvents

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method to amend and adopt ISO 6837.1982 "Water Dispersibility of Surfactants in Dry Cleaning Solvents".

Compared with ISO 6837.1982, the structure of this standard is adjusted as follows.

---Chapter 3 "Definitions" in ISO 6837.1982 was deleted, and the numbers of the subsequent articles were revised in sequence;

--- 6.7, 6.8 and 6.9 in ISO 6837.1982 are deleted.

The technical differences between this standard and ISO 6837.1982 and the reasons are as follows.

---Regarding normative reference documents, this standard has made adjustments with technical differences to adapt to my country's technical conditions and adjustments.

The situation is reflected in Chapter 2 "Normative Reference Documents". The specific adjustments are as follows.

* Replace ISO 607 with GB/T 6372, which is equivalent to adopting international standards (see Chapter 6);

* Replace ISO 2456 with QB/T 1223 which is modified to adopt international standards (see Chapter 4);

* The normative references ISO 385-1, ISO 565, ISO 648, ISO 3819, ISO 4788 and ISO 4797 have been deleted.

---In order to adapt to the use situation in our country, Chapter 3 "Definitions" in ISO 6837.1982 is deleted;

---In order to adapt to the actual situation of our country, the measurement principle of this method is modified (see Chapter 3);

--- In order to adapt to the actual situation in my country, tetrachloroethylene has been added to the list of reagents (see 4.1);

---In order to adapt to the actual situation in my country, the requirements for general laboratory utensils have been deleted (see Chapter 5);

---As it was not used during the test, the 500mL volumetric flask was deleted (see 5.1);

---In order to adapt to our country's usage habits, the capacity of the beaker used has been modified (see 5.2);

---In order to adapt to the actual situation of our country, the type of magnetic stirrer used has been modified (see 5.6);

---The water solubilizing power tester is added to the equipment list, and the method of measuring the transmitted light intensity is adopted to improve the measurement accuracy and realize the recording of data

Recording and continuous processing, delete the use of sieve plates, lighting boxes and black cards (see 5.7);

---In order to adapt to the actual situation in my country, a balance has been added to the instrument list (see 5.8);

---According to the newly added measuring instrument, the test instrument icon has been modified (see Figure 1);

---For safety reasons, a warning about the use of reagents has been added (see Chapter 7);

---Considering the accuracy of this method, the operating requirements after the solution is prepared (see 7.2.2);

---According to the new measuring instrument, the description of the water solubilizing power measurement process has been modified (see 7.3.1);

---In order to adapt to the actual situation in our country, the precise measurement process of water solubilization power has been added (see 7.3.2);

---According to the newly-added measuring instrument, the process description of the water emulsifying power determination is modified (see 7.4.1);

---In order to adapt to our country's usage habits, the order and amount of Sudan Red III added were modified (see 7.4.1);

---In order to adapt to the actual situation of our country, the precise measurement process of water emulsifying power has been added (see 7.4.2);

---In order to adapt to the actual method situation, the water solubilizing power determination formula is modified (see 8.1);

---In order to adapt to the actual situation of our country, the water emulsifying power determination formula has been added (see 8.2);

---In order to adapt to the actual situation of our country, the test date and test personnel requirements have been increased (see Chapter 9).

This standard also made the following editorial changes.

---Modified the standard name;

---Delete the nickname of Sudan Red III (see 4.2);

---According to the requirements of national standards, more parts of the experimental steps are subdivided (see 7.2, 7.3);

---Added the numbers and titles of the figures and tables (see Figure 1, Table 1).

This standard was proposed by the China National Light Industry Council.

This standard is under the jurisdiction of the National Standardization Technical Committee for Surfactants and Detergents (SAC/TC272).

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1 Scope

This standard specifies the determination method of water solubilizing power and water emulsifying power.

This standard applies to dry cleaning detergents or auxiliary products with a concentration of 3g/L~5g/L and other suitable concentrations in the washing tank.

This standard does not apply to ancillary products that contain higher concentrations of surfactants in solvents and water, such as chemical washing used for scrubbing or spraying.

product.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 6372 Surfactant and detergent sample dividing method (GB/T 6372-2006, ISO 607.1977, IDT)

QB/T 1223 Water specifications and test methods for surfactants used as test solvents (QB/T 1223-2012, ISO 2456.

1986, MOD)

3 Principle

Water dispersion is the ability of dry cleaning detergents to solubilize or emulsify water in dry cleaning solvents. For this purpose, several detergents are formulated and the solvent content is constant.

The pre-mixed solutions with continuously increasing water content are then used to prepare dry cleaning detergent samples with the desired final concentration.