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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 13892-2020

Replacing GB/T 13892-2012

Surface active agents. Determination of iodine value

Issued on: December 14, 2020 **Implemented on: July 1, 2021**

Issued by: State Administration for Market Regulation, China National Standardization Administration

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1:1-2009:

This standard replaces GB/T 13892-2012 "Determination of Surfactant Iodine Value": Compared with GB/T 13892-2012, the main changes

Change as follows:

--- "GB/T 29858" has been added to the normative references, and "GB/T 675, GB/T 682, GB/T 688" has been deleted (see No: 2

Chapter, Chapter 2 of the:2012 edition);

---Added the seven terms of "modeling sample set", "correction", "correction model", "prediction", "outliers", "Mahalanobis distance" and "verification sample set"

And definitions (see Chapter 3);

---Increase the detection of iodine value by near infrared spectroscopy (see Chapter 5);

---Added the test date in the "Test Report" (see Chapter 7);

---Informative Appendix A has been added (see Appendix A):

This standard is prepared by using the redrafting method with reference to ISO 3961:2009 "Determination of Iodine Value of Animal and Vegetable Oils and Fats", which is consistent with ISO 3961:2009:

The degree of consistency is non-equivalent:

This standard was proposed by the China Petroleum and Chemical Industry Federation:

This standard is under the jurisdiction of the National Chemical Standardization Technical Committee (SAC/TC63):

Drafting organizations of this standard: Zhejiang Real Madrid Technology Co:, Ltd:, Yangzhou Chenhua New Materials Co:, Ltd:, Liaoning Aoke Chemical Co:, Ltd:

Co:, Ltd:, Levima New Material Technology Co:, Ltd:, Shaoxing Quality and Technical

Supervision and Testing Institute, Zhejiang Lvkean Chemical Co:, Ltd:

1 Scope

This standard specifies the use of Wijs method and near infrared spectroscopy to determine the iodine value of surfactants:

This standard applies to fatty acids, alcohols, amines, animal and vegetable oils and fats with unsaturation, and surfactants made from them:

Iodine value determination:

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 601-2016 Preparation of chemical reagent standard titration solution

GB/T 622 Chemical reagent hydrochloric acid

GB/T 651 Chemical reagent potassium iodate

GB/T 1272 Chemical reagent potassium iodide

GB/T 6372 Surface active agent and detergent sample dividing method

GB/T 6682-2008 Analysis laboratory water specifications and test methods

GB/T 29858 General Rules for Quantitative Analysis of Molecular Spectrum Multivariate Calibration

3 Terms and definitions

The following terms and definitions apply to this document:

3:1

Iodine value

Under the operation specified in this standard, the mass of iodine absorbed per 100 grams of sample (grams), (calculated as I2) g/100g:

3:2

Modelingsamples

A series of representative samples used to build the calibration model:

3:3

Validationsamples

A series of representative samples used to verify the calibration model:

3:4

Calibration

The process of correlating the component concentrations or properties of a group of samples with their spectra and establishing a model:

3:5

Calibrationmodel

A mathematical expression that expresses the correlation between the composition and concentration or properties of a set of samples and their spectra:

3:6

Predict

The process of using the calibration model and the spectrum of the sample to calculate the concentration or properties of the sample components: