

CCS G 76



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 39302-2020

**Reclaimed water quality. Determination of anionic surfactants.
Methylene blue spectrophotometric method**

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Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 Method summary

5 Reagents or materials

5.3 Sulfuric acid.

5.4 Methanol (CH₄O).

5.5 Ethanol (C₂H₅OH). 95%.

5.6 Dichloromethane (CH₂Cl₂).

5.7 Sulfuric acid solution. 1 35.

5.8 Sodium hydroxide solution. 40g/L.

5.9 Formaldehyde solution. 99.

Foreword

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

This standard uses the redrafting method to refer to ISO 7875-1.1996 "Determination of Water Quality Surfactants Part 1.Methylene Blue Index

The method for measuring anionic surfactants (MBAS) is compiled, and the degree of consistency with ISO 7875-1.1996 is not 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).

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1 Scope

This standard specifies the determination method of the content of anionic surfactants in reclaimed water-methylene blue spectrophotometry.

This standard applies to the determination of the anionic surfactant content in the reclaimed water in the range of 0.05mg/L~1.5mg/L, for higher content

The sample can be measured after reducing the sampling amount or dilution. This standard is also applicable to the determination of anionic surfactant content in surface water and wastewater.

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 document.

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

Preparation of preparations and products used in GB/T 603 chemical reagent test method

GB/T 5327-2008 Surfactant terminology

GB/T 6682 Analytical laboratory water specifications and test methods

3 Terms and definitions

The terms and definitions defined in GB/T 5327-2008 apply to this document.

4 Method summary

The cationic dye methylene blue reacts with the anionic surfactant in the reclaimed water to generate blue salts, which are extracted with dichloromethane and then separated.

The photometer measures the absorbance at a wavelength of 652nm.

5 Reagents or materials

Warning---The strong acid used in this standard is corrosive. Avoid inhalation or contact with the skin when using it. When splashing on your body,

Rinse with water, and seek medical attention immediately in severe cases. The organic reagents in this standard have strong volatility. Dichloromethane belongs to category 6.1

poisons.

Human health is harmful and flammable. The operation should be carried out in a fume hood to prevent contact with open flames, and wear protective equipment as required.

Inhale

In case of emergency, evacuate the scene quickly to a place with fresh air, and seek medical attention immediately in severe cases. The waste liquid generated should be handled by a qualified unit.

5.1 The reagents and water used in this standard, unless otherwise specified, should use analytical reagents and the tertiary water specified in GB/T 6682.

5.2 Preparations and products required in the test, unless other requirements are specified, are prepared in accordance with the provisions of GB/T 603.