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

SN/T 2835-2011

**Safety test method of import and export dangerous chemicals.
Determination of the chemical oxygen demand (COD)**

进出口危险化学品安全试验 化学降解需氧量(COD)测定
(English Translation)

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Foreword

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

This revised standard adopts ISO 6060. 1989 "Quality determination of chemical oxygen demand" (in English).

On a standard text format according to GB/T 1.1-2009 requirements of the editorial changes.

--- To introduce as part of the standard introduction;

--- 4 to 6 of the first part of the original scope of the standard as of this standard 4.1.4.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard drafting units. People's Republic of China Shandong CIQ.

Introduction

Determination of chemical oxygen demand (COD) by the dichromate method can be considered to be a suitable method for measuring the theoretical oxygen, for example, there are Sub-units into the final product inorganic oxygen consumption during total chemical oxidation (see 4.7). Level results close to the theoretical value depends mainly on the to improve the situation oxidation process. The degree of oxidation of organic compounds in a large number of 90% to 100%. For most of the water, the city e.g.

Wastewater, COD value is a realistic method of measuring the theoretical oxygen demand. For other containing large amounts of water under the experimental conditions difficult oxidizing substances it (see 4.7), COD value is a poor method of measuring the theoretical oxygen demand. Some industrial wastewater may be the case.

Therefore, the importance of the COD depends on the composition of the water study. When the result of the determination by the method described in this standard obtained, this it should be remembered.

Import and export of dangerous chemicals test Chemical degradation oxygen demand (COD) determination

1 Scope

This standard specifies the determination of chemical oxygen demand by dichromate method (COD).

This standard applies to COD at 30mg/L ~ 700mg/L of water, wherein the chloride content should not exceed 1000mg/L. One Meet these conditions can be directly used to analyze water samples. If the COD value exceeds 700mg/L, then the sample should be diluted. Based on the maximum fine COD value indeed considering the sample should be 300mg/L ~ 600mg/L.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

ISO 385 Laboratory glassware Burette Part 1. General requirements ISO 5790. 1979 Industrial Inorganic Chemicals general method used in the determination of chloride content of mercury droplets titration

3 Terms and Definitions

The following terms and definitions apply to this document.

COD chemicaloxygendemand; COD when the amount of a water sample with dichromate oxidizing agent under certain conditions, by the dissolved and suspended materials consumed dichromate the equivalent concentration of oxygen.

4.1 Principles

4.1.1

within a fixed period of time, quantitative substance dissolved or dispersed in water, this aqueous solution containing a known amount of potassium dichromate and Silver catalyst of concentrated sulfuric acid in the presence of reflux in mercury sulfide. During this time due to the presence of bichromate part of the oxidizable material and Save not enough. The remaining dichromate titration with ammonium ferric sulfate. COD value calculated by the reduction of dichromate.

4.1.2 1mol dichromate ($\text{Cr}_2\text{O}_7^{2-}$) corresponds to 1.5mol oxygen (O_2).

4.1.3

If the test portion contains more than 1000mg/L of chloride should be used to modify a step over 1).

1) For samples containing more than 1000mg/L chlorides, the step of modifying the study should be ISO/TC147/SC2 in. For the 30mg/L to Under low-grade COD, the steps are also being considered.

4.1.4

under the given reaction conditions, the organic component is widely peroxide. Containing specific structural elements (for example. pyridine nucleus, nitride Except compounds). Volatile hydrophobic substances may evaporate and thus avoid being oxidized. Inorganic under the reaction conditions to be oxidized Compounds such as.