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

GB/T 27849-2011

**Chemicals -- Degradation screening test -- Chemical oxygen
demand**

化学品 降解筛选试验 化学需氧量

(English Translation)

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Foreword

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

This standard and the European Commission Regulation 440/2008. the European Parliament and the Council on the Registration, Evaluation, Authorisation and Restriction Method (REACH) No. 1907/2006 Test method regulations C.6 (2008 Nian) "degradation --- COD" (English Version) identical technical content.

This standard configuration and do the following editorial changes.

- The units of measurement to our legal units of measurement;
- Consistent with the existing standard series, the standard name will be changed to "chemical degradation screening test chemical oxygen demand";
- Terminology and definitions provisions, the use of national standards and consistent definition of already published.

This standard is managed by the National Standardization Technical Committee chemicals dangerous (SAC/TC251) and focal points.

This standard was drafted. MEP Chemical Registration Center, Shanghai Testing Center, the State Quality Supervision, Inspection and dangerous chemicals in Heart, Nanjing Institute of Environmental Sciences Department of Environmental Protection, Beijing Normal University, Jiangsu Entry-Exit Inspection and Quarantine Bureau.

Introduction

The purpose of the process is at a fixed test conditions, using a proprietary standard methods of solid or liquid organic chemical Oxygen demand (COD) determination.

Material formula can help guide the tests and interpret test results (such as halogen salts, ferrous salts, organic compounds, organic chlorine Compounds).

Chemical degradation screening test COD

1 Scope

This standard specifies the test method for screening test chemical degradation of COD.

This standard applies to the majority of low-volatile solid or liquid organic substances.

This standard gives a method for determining the ability of the substance to be oxidized.

2 Terms and definitions

The following terms and definitions apply to this document.

COD chemicaloxygendemand, COD in strong acid and heating conditions, a certain amount of dichromate oxidation of reducing substances in water samples of the amount of oxidant consumed, can be expressed as millimoles per Oxygen milligrams (mg/mg) g of the test substance consumed.

3 Test substance information

Test information, including.

- a) the formula or the formula;
- b) purity and impurities;
- c) solubility in water;
- d) boiling point or vapor pressure.

4 Reference substances

Reference material is mainly used to calibrate the measuring method to check the quality of reagents and test results can be used to compare different methods to make.

When the test is not a new substance to be used for reference material.

5 Principle of the method

A certain amount of test substance is dissolved or dispersed in distilled water, with silver sulphate as a catalyst, concentrated sulfuric acid medium with a known amount of dichromate Potassium was heated under reflux for two hours. The remaining content with standard dichromate solution of ammonium ferrous sulfate titration. According to the calculated amount of ferrous ammonium sulfate Water samples reducing material consumption amount of oxidant.

In the determination of chlorine-containing substances, mercuric sulphate reducing interference by chlorides.

Note: After the test, the mercury salts, chromium salt solution should sound disposal to prevent environmental pollution.

6.1 Stock solution of the test substance

For soluble test substance formulated COD is 250mg/L ~ 600mg test substance stock solution/L; for poorly soluble or can not be dispersed