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

SN/T 2497.29-2010

**Test method of import and export dangerous chemicals. Part
29: Biochemical oxygen demand(BOD)test**

进出口危险化学品安全试验方法 第29部分：生化需氧量(BOD)测定
(English Translation)

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Foreword

SN/T 2497 "Test Methods for Chemical Safety & Exports dangerous" series of standards is divided into 29 parts.

--- Part 1. mammalian liver cells in vivo DNA synthesis (UDS) test;

--- Part 2. plaque-forming cells (PFC) test;

--- Part 3. Large Zhuan reproduction test;

--- Part 4. *Saccharomyces cerevisiae* mitotic recombination test;

--- Part 5. testicular cells UDS test;

--- Part 6. mammalian cells in vitro sister chromatid exchange test;

--- Part 7. mouse ear swelling test;

Part --- Article 8. fossa lymph node assay;

--- Part 9. Determination of serum hemolysin test;

Part --- Article 10. T lymphocyte proliferation assay test;

--- Part 11. germline mutation assay;

--- Part 12. single cell gel electrophoresis test;

--- Part 13. fluorescence in situ hybridization;

Part --- Article 14. SDS- polyacrylamide gel electrophoresis;

--- Part 15. PCR-SSCP experiment;

Part --- Article 16. Western-Blot test;

- Part 17. Behavior of mammalian toxicology tests;
- Part 18. Detection of DNA adducts;
- Part 19. NorthernBlot experiment;
- Part 20. Bradford protein assay;
- Part 21. agarose gel electrophoresis;
- Part 22. T_m value determination method of DNA;
- Part 23. organelle separation experimental methods;
- Part 24. cellular immunity in vitro assay method;
- Part 25. humoral immune function tests;
- Part 26. macrophage function tests;
- Part 27. Flow cytometry of apoptosis;
- Part 28. Application shuttle plasmid mutations Inspection;
- Part 29. Biochemical Oxygen Demand (BOD) was measured.

This section SN/T 2497 series of standards - Part 29.

The partial modification of the use of the Organization for Economic Cooperation and Development (OECD) Chemicals testing guidelines No. 301C (1992) "Modified MITI (I) Test", the technical content of the above-described method is completely the same, in a standard text format according to GB/T 1.1 made editorial changes.

Appendix A of this section is an informative annex.

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

This section is responsible for drafting unit. People's Republic of China Tianjin Entry-Exit-Entry Inspection and Hunan People's Republic of China Quarantine Bureau.

1 Scope

SN/T 2497 provisions of this part of the import and export of dangerous chemicals - Test methods of biochemical oxygen demand (BOD) as determined and fixed term Righteousness, equipment, test methods and data processing and reporting.

This section applies to the biochemical oxygen demand (BOD) Test Method for Determination of the import and export of dangerous chemicals.

2 Terms and definitions

The following terms and definitions apply to this section.

Amount consumed microbial decomposition of organic matter, it can be expressed as the number of milligrams of oxygen (mg/mg) of the test substance consumed per milligram.

Calculated according to the formula of the total amount of the test substance is completely oxidized oxygen required, it can be expressed as oxygen consumption per mg of the test substance in mg the number of grams (mg/mg).

Test Method 3

3.1 Test water preparation

3.1.1

The test water should be deionized or distilled water.

3.1.2

The test water in the organic carbon content should be less than 10% of the test substance concentration in the organic carbon content.

3.2 Equipment

3.2.1

BOD analyzer;

3.2.2

incubator.

3.3 Preparation of test medium

3.3.1

The following stock solution was prepared with analytical reagent.

a) Phosphate stock solution. Weigh 8.50g of potassium dihydrogen phosphate (KH_2PO_4), 21.75g dipotassium hydrogen phosphate (K_2HPO_4), 44.60g ten Disodium hydrogen phosphate dihydrate ($\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O}$), 1.7g of ammonium chloride (NH_4Cl) dissolved in water, dilute to 1L, solution the pH should be 7.2.

b) magnesium sulfate stock solution. Weigh 22.50g magnesium sulfate heptahydrate ($\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$) dissolved in water, dilute to 1L.

c) Calcium chloride stock solution. Weigh 27.5g anhydrous calcium chloride (CaCl_2) dissolved in water, dilute to 1L.

d) ferric chloride stock solution. Weigh 0.25g ferric chloride hexahydrate ($\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$) dissolved in water, dilute to 1L.

3.3.2 Preparation of test medium

Take stock solution phosphate, magnesium sulfate stock solution of ferric chloride and calcium chloride stock solution of each stock solution 3mL, test water volume to 1L.

3.4 Stock solution of the test substance

3.4.1

When the test substance or reference substance water solubility of more than 1g/L, dissolved 1g ~ 10g, deionized water and dilute to 1L. Also available Test media prepared stock solution or the test substance to be tested were added directly to the test medium.

3.4.2

When neither the use of solvents can not use emulsifiers, poorly soluble test substances may be added directly to the mass or volume of the test bottle.