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

SN/T 2497.11-2010

**Test method of import and export dangerous chemicals. Part
11: Germ-line mutation**

进出口危险化学品安全试验方法 第11部分：种系突变试验
(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 is Part 11 SN/T 2497 series of standards.

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 germline mutation assay reagents and equipment, test side Method, test procedures, test results and test report.

This section applies to mutation test and export of dangerous chemical species.

2 Normative references

The following documents contain provisions which, through reference SN/T 2497 to the present, constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB 14924.1 animal feed common quality standards GB 14925 laboratory animal environment and implementation Disinfection technical specifications

3.1 Reagents

3.1.1 0.9% sodium chloride solution.

3.1.2 0.075mol/L potassium chloride solution.

3.1.3 1% periodic acid solution. 1g second periodic acid dissolved in 100mL of water, 4 °C refrigerator.

3.1.4

red liquid phosphate buffer salt (pH7.4). preparation methods, see "Disinfection technical specifications" 2.3.8.2.2 (9).

3.1.5

testicular cell separation medium (TIM). Take NaCl6.0g, KCl3.3g, CaCl₂ · 2H₂O0.18g, MgSO₄ · 7H₂O 0.3g, Na₂HPO₄0.85g, KH₂PO₄0.09g, glucose 10g, 0.5% phenol red solution 0.8mL, add distilled water to 1L, pH is 7.2 ~ 7.3, 4 °C preservation.

3.1.6

Zenkert solution. Weigh K₂Cr₂O₇25g, Na₂SO₄ · 10H₂O10g, add H₂O dissolved to 1000mL.

3.1.7

Heley's fixative. before use, was added formaldehyde solution (36% ~ 40%) 50mL to 950mLZenkert solution.

3.1.8 10% formalin fixative. 1 parts formaldehyde solution (36% ~ 40%) was mixed with 3 parts distilled water.

3.1.9

Schiffs solution. 1g of fuchsin dissolved in 200mL of distilled water just boiling over (Basic Fuchsin Do not pay attention to put in place the boil in), shock 5min, until the solution was cooled to 50 °C, coarse filter paper was added 1mol/L hydrochloric acid in 20mL filtrate, after cooling to 25 °C when, 1g of sodium metabisulfite, cooled to room temperature and dissolved at room temperature in the dark 24h, 2g of activated carbon with fresh shake well to a few minutes, the filter paper Filtered and stored at 4 °C.

3.1.10

Harry's hematoxylin solution. A solution (1g hematoxylin dissolved in ethanol 10mL) acetate solution (potassium alum 20g dissolved in 200mL Distilled water), after the first B liquid boiling heat, and slowly added to the dissolved solution A, immediately after slowly added 0.5g mercuric oxide, boil again, fast After cooling speed pure glacial acetic acid was added 8mL filtering uses (Note. When mercuric oxide and potassium alum is added slowly, pay attention to safety).

3.2 Instruments and equipment

Commonly used laboratory equipment, biological microscope, constant temperature water bath $37\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$, centrifuge, Dissecting scissors, tweezers, syringes, needles gavage, Centrifuge tube, pipette, dropper, test tube racks, slides, plastic suction bottle, clean gauze, filter paper and the like.