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**SN**

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

**SN/T 2497.7-2010**

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**Test method of import and export dangerous chemicals. Part 7:  
Mice ear swelling**

进出口危险化学品安全试验方法 第7部分：小鼠耳肿胀试验  
**(English Translation)**

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## Table of Contents

Foreword

1 Scope

2 Normative references

3 Test principle

4.1 Test animals

4.2 Reagents and Consumables

4.4 Test procedure

### 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<sub>m</sub> 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 Part 7.

The partial modification of the use of "Toxicology test methods and techniques" immune toxicology research method, technical content and the method described above Exactly the same, in a standard text format according to GB/T 1.1-2000 made editorial changes.

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

This section SN/T 2497 specifies the terms and definitions import and export of dangerous chemicals test mouse ear swelling test, the original test Management, test methods and test results.

This section applies to the import and export of dangerous chemicals test in mouse ear swelling test.

## 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

### 3 Test principle

DNFB is a hapten, after its dilution smear mouse abdominal skin, and the skin to complete antigen binding protein to stimulate T Cell proliferation to sensitized lymphocytes. (4 ~ 7) d then be applied in the mouse ear skin, so that local production of delayed-type hypersensitivity, in anti After allergen challenge (24 ~ 28) h, measuring the ear swelling to reflect the intensity of delayed skin hypersensitivity.

Test Method 4

#### 4.1 Test animals

Select (6-8) week old mice, before the test, animals fed a diet rich in vitamins A 4 weeks. Experimental animals and animal testing Environment and facilities in line with the relevant provisions of GB 14924.1.

#### 4.2 Reagents and Consumables

##### 4.2.1

Positive control. DNFB solution.

##### 4.2.2

syringes, scales, tape, hole puncher.

Dose group and 4.3

Take weight (18 ~ 22) g 50 mice were randomly divided into five groups of 10, male and female. Respectively negative control group, positive control Group and exposed groups (low, medium and high dose groups). Positive control group with DNFB (DNFB).

#### 4.4.1 DNFB solution preparation

1% DNFB solution should be freshly prepared, weighed DNFB50mg, placed in a clean, dry vial of penicillin, the previously prepared Sesame oil 5mL acetone solution was poured into a vial, capped and sealed with adhesive tape, mix with 250μL syringe through the cap access.

#### **4.4.2 Sensitization**

Before the test, 24h in the back of mice, using a razor hair removal. Test first day and two days in the back of mice shed area of the applicator to be tested Science was 100 $\mu$ L. On day 6 the 40 $\mu$ L test substance deposited in the mice left ear, right ear apply solvent. After excitation 24h and 48h, killed by cervical dislocation Mouse, cut left and right ears, with a diameter of 8mm hole puncher remove ear piece weighed. In difference to the weight of the left ear swelling.