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

SN/T 2497.14-2010

**Test method of import and export dangerous chemicals. Part
14: Determination of sodium dodecyl sulfate polyacrylamide gel
electrophoresis**

进出口危险化学品安全试验方法 第14部分：SDS-聚丙烯酰胺凝胶电泳试验
(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 section SN/T 2497 series of standards Part 14.

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 main import and export of dangerous chemicals test SDS- polyacrylamide gel electrophoresis test Reagents, test procedures and test results.

This section applies to the import and export of hazardous chemicals SDS- polyacrylamide gel electrophoresis.

Principle 2

SDS- polyacrylamide gel electrophoresis

(SodiumDodecylSulfatePolyacrylamideGelElectrophoresis), in polypropylene Acrylamide gel systems, adding a certain amount of sodium dodecyl sulfate (SDS), and protein samples will be combined to form a negatively charged SDS Complex, due to the different relative molecular mass of the protein, the molecular weight complex formation is different, reflecting not in electrophoresis with mobility. According to the standard curve mobility and molecular weight standard protein electrophoresis samples made can calculate Approximation of relative molecular mass protein samples.

3 Reagents

3.1 30% acrylamide

Take 29g of acrylamide and 1gN, N'-methylene-bis-acrylamide were dissolved in 60mL water, heated to dissolve 37 °C, add water to make a final body Volume of 100mL, filter sterilized, dark, 4 °C preservation.

Weigh 12.1gTris alkali water to near 100mL, with 0.1mol/L HCl was adjusted to pH 6.8 water to 100mL, 4 °C.

Weigh 18.2gTris add water to nearly 100mL, with 0.1mol/L HCl was adjusted to pH 8.8, water to 100mL, 4 °C save.

3.4 10% ammonium persulfate stock solution A small amount of deionized water of 10% stock solution stored at 4 °C, 1 week of use.

3.5 5 x electrophoresis buffer glycine 15.1gTris base, 94g glycine, then add 50mL10% of SDS, water to 1000mL, stored at room temperature.

3.6 1 x SDS gel loading buffer 50mmol/LTris · Cl (pH6.8), 100mmol/L dithiothreitol (DTT), 2% SDS (electrophoresis grade), 0.1% bromophenol blue, 10% glycerol, DTT temporary use is now added.

3.7 Staining solution

First 0.25g Coomassie Brilliant Blue R-250 was dissolved in 90mL of methanol aqueous solution (volume ratio of 1) a mixture of glacial acetic acid and 10mL and filtered.

3.8 Destaining solution

90mL of methanol and water (volume ratio of 1) and a mixture of 10mL glacial acetic acid.