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

GB/T 5169.24-2018

Replacing GB/T 5169.24-2008

**Fire hazard testing for electric and electronic products -- Part
24: Guidance for assessing the fire hazard -- Insulating liquids**

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Foreword

GB/T 5169 "Electrical and Electronic Products Fire Hazard Test" is divided into the following parts.

- Part 1. Terminology for ignition test;
- Part 2. General guidelines for the assessment of fire hazard;
- Part 5. Test flame test method, test method and guide;
- Part 9. General rules for pre-selection test procedures for fire hazard assessment guidelines;
- Part 10. Glow wire/hot wire basic test method Glow wire device and general test method;
- Part 11. Glow wire/hot wire basic test method Glow wire flammability test method (GWEPT);
- Part 12. Glow wire/hot wire basic test method Glow wire flammability index (GWFI) test method;
- Part 13. Glow wire/hot wire basic test method Glow wire light-off temperature (GWIT) test method for materials;
- Part 14. Test flame 1kW nominal premixed flame device, validation test method and guidelines;
- Part 15. Test flame 500W flame device and confirmation test method;
- Part 16. Test flame 50W horizontal and vertical flame test method;
- Part 17. Test flame 500W flame test method;
- Part 18. General principles of toxicity of combustion streams;
- Part 19. Unnormal thermal compression stress release deformation test;

- Part 20. Summary and correlation of test methods for flame surface spread;
- Part 21. abnormal heat ball pressure test;
- Part 22. Test flame 50W flame device and confirmation test method;
- Part 23. Test flame tube-shaped polymeric material 500W vertical flame test method;
- Part 24. Fire hazard assessment guidelines for insulating liquids;
- Part 25. General rules for smoke blur;
- Part 26. Summary and correlation of smoke fuzzing test methods;
- Part 29. General rules for heat release;
- Part 30. Summary and correlation of heat release test methods;
- Part 31. General rules for the spread of flame surfaces;
- Part 32. Heat release of heat release insulating liquids;
- Part 33. Fire hazard assessment guidelines for general ignitability;
- Part 34. Fire hazard assessment guidelines Summary and correlation of ignitability test methods;
- Part 35. General rules for corrosion hazards of combustion streams;
- Part 36. Summary and correlation of test methods for corrosion hazards of combustion flows;
- Part 38. Summary and correlation of toxicity test methods for combustion streams;
- Part 39. Use and description of the toxicity test results of the combustion stream;
- Part 40. Toxic toxicological assessment devices and test methods for combustion streams;
- Part 41. Calculation and description of test results for toxic toxicity assessment of combustion streams;
- Part 42. Test flame confirmation test guidelines;
- Part 44. Fire hazard assessment guidelines for fire hazard assessment.

This part is part 24 of GB/T 5169.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 5169.24-2008 "Electrical and electronic products - Fire hazard testing - Part 24. Guidelines for fire hazard assessment

Insulating liquids, the main technical changes compared with GB/T 5169.24-2008 are as

follows.

- Added specific terms and definitions (see Chapter 3, Chapter 3 of the.2008 edition);
- Updated the reference standard for the classification of insulating liquids (see Chapter 4, Chapter 4 of the.2008 edition);
- Adjusted the arrangement of the chapter "Fire Parameters" (see Chapter 6, Chapter 6 of the.2008 edition);
- Added an introduction to "cause fire" and "victim fire" (see Chapter 7, Chapter 7 of the.2008 edition).

This section uses the translation method equivalent to IEC 60695-1-40.2013 "Fire hazard test Part 1-40. Electrical products fire hazard

Evaluation Guidelines for Insulating Liquids.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

---GB 2536-2011 Unused mineral insulating oil for electrical fluid transformers and switches (IEC 60296.2003, MOD)

--- GB/T 3536-2008 Determination of flash point and ignition point of petroleum products Cleveland open cup method (ISO 2592.2000, MOD)

GB/T 5169.2-2013 Fire hazard testing for electric and electronic products - Part 2. General guide to fire hazard assessment

(IEC 60695-1-10..2009, IDT)

--- GB/T 5169.26-2018 Electrical and electronic products - Fire hazard testing - Part 26

Relevance (IEC /T S60695-6-2.2011, IDT)

--- GB/T 5169.30-2008 Electrical and electronic products - Fire hazard testing - Part 30. Summary of heat release test methods and

Relevance (IEC /T R60695-8-2.2008, IDT)

--- GB /Z 5169.32-2013 Electrical and electronic products - Fire hazard testing - Part 32. Heat release of heat release insulating liquids

(IEC /T S60695-8-3.2008, IDT)

--- GB/T 5169.36-2015 Electrical and electronic products - Fire hazard testing - Part 36. Corrosion hazard test

Method summary and correlation (IEC /T S60695-5-2.2002, IDT)

GB/T 5169.38-2014 Electrical and electronic products - Fire hazard testing - Part 38.
Methods

Summary and relevance (IEC 60695-7-2:2011, IDT)

--- GB/T 5169.44-2013 Electrical and electronic products - Fire hazard testing - Part 44.
Fire hazard assessment guide

Risk assessment (IEC 60695-1-11:2010, IDT)

---GB/T 14402-2007 Determination of the burning calorific value of combustion properties
of building materials and products (ISO 1716:2002, IDT)

---GB/T 27750-2011 Classification of insulating liquids (IEC 61039:2008, IDT)

This section also made the following editorial changes.

--- In line with the existing standard series, the name of this part was changed to "Electrical
and Electronic Products Fire Hazard Test Part 24. Fire hazard

Risk Assessment Guidelines for Insulating Liquids.

This part was proposed by China Electrical Equipment Industry Association.

This part is under the jurisdiction of the National Standardization Technical Committee for
Fire and Hazard Testing of Electrical and Electronic Products (SAC/TC300).

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Introduction

All electrical and electronic products must be designed with fire risk and potential fire
hazard in mind. Design of components, circuits and products, and

The purpose of the screening of materials is to reduce the potential risk of ignition to an