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

GB/T 5169.9-2021

**Fire hazard testing for electric and electronic products - Part 9:
Guidance for assessing the fire hazard - Preselection testing
procedures - General guidelines**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is Part 9 of GB/T 5169 "Fire Hazard Test for Electrical and Electronic Products". GB/T 5169 has released the following

part.

---Part 1. Terminology of fire test;

---Part 2. General rules for fire hazard assessment guidelines;

---Part 5. Test flame needle flame test method device, confirmation test method and guidance;

---Part 9. Guidelines for Fire Hazard Assessment, General Rules for Pre-selection Test Procedures;

---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 of finished product (GWEPT);

---Part 12. Glow-wire/hot-wire basic test methods. Glow-wire flammability index (GWFI) test method for materials;

---Part 13. Glow Wire/Glow Wire Basic Test Method Material Glow Wire Ignition Temperature (GWIT) test method;

---Part 14. Test flame 1kW nominal pre-mixed flame device, confirmation test method and

guide;

- 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 rules for the toxicity of combustion streams;
- Part 19. Abnormal hot mold compression stress release deformation test;
- Part 20. Summary and correlation of flame surface spread test methods;
- Part 21. Abnormal hot ball pressure test method;
- Part 22. Test flame 50W flame device and confirmation test method;
- Part 23. Test flame 500W vertical flame test method for tubular polymeric materials;
- Part 24. Guidelines for Fire Hazard Assessment Insulating Liquids;
- Part 25. General Rules for Smoke Blur;
- Part 26. Summary and relevance of smoke fuzzy test methods;
- Part 29. General rules for heat release;
- Part 30. Summary and relevance of heat release test methods;
- Part 31. General rules for the spread of flames on the surface;
- Part 32. Heat release of heat release of insulating liquid;
- Part 33. Guideline for Fire Hazard Assessment, General Rules for Ignitability;
- Part 34. Summary and correlation of ignitability test methods for fire hazard assessment guidelines;
- Part 35. General rules for the corrosion hazards of combustion streams;
- Part 36. Summary and correlation of the corrosion hazard test methods of the combustion stream;
- Part 38. Summary and correlation of the toxicity test method of the combustion stream;
- Part 39. Use and explanation of the results of the toxicity test of the combustion stream;
- Part 40. Toxicity evaluation device and test method of combustion stream;
- Part 41. Calculation and explanation of the results of the toxicity evaluation test of the combustion stream;
- Part 42. Test flame confirmation test guidelines;

---Part 44.Guidelines for Fire Hazard Assessment, Fire Hazard Assessment;

---Part 45.Fire hazard assessment guidelines for fire safety engineering;

--- Part 46.Determination of the characteristic heat flux during ignition of the non-contact flame source of the test flame.

This document replaces GB/T 5169.9-2013 "Fire Hazard Test of Electrical and Electronic Products Part 9.Guidelines for Fire Hazard Assessment

General Rules for Selected Test Procedures, compared with GB/T 5169.9-2013, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) Some terms and definitions have been updated and added (see Chapter 3, Chapter 3 of the.2013 edition);

b) Update Chapter 4 to refer to the requirements and specifications of IEC 60695-1-10, IEC 60695-1-11 and IEC 60695-1-12

(See Chapter 4, Chapter 4 of the.2013 edition);

c) Chapter 5 has been updated (see Chapter 5, Chapter 5 of the.2013 edition);

d) Chapter 6 has been updated (see Chapter 6, Chapter 6 of the.2013 edition);

e) Modified the methods listed in Appendix A (see Appendix A, Appendix A of the.2013 edition);

f) The preselected test example in Appendix B replaces the original information technology equipment fire-resistant housing material with auxiliary electrical materials (see Appendix B, Appendix B of the.2013 edition).

The translation method used in this document is equivalent to IEC 60695-1-30.2017 ``Fire Hazard Test Part 1-30.Fire of Electrical Products

Hazard Assessment Guidelines, General Rules of Pre-selection Test Procedures.

The Chinese documents that have consistent correspondence with the normatively cited international documents in this document are as follows.

---GB/T 5169.2-2021 Fire hazard test of electric and electronic products Part 2.General rules for fire hazard assessment guidelines

(IEC 60695-1-10.2016, IDT);

---GB/T 5169.44-2013 Fire hazard test of electrical and electronic products Part 44.Fire hazard assessment guidelines

Risk assessment (IEC 60695-1-11.2010, IDT);

---GB/T 5169.45-2019 Fire hazard test for electrical and electronic products Part 45.Fire

hazard assessment guidelines for fire protection

Safety engineering (IEC 60695-1-12:2015, IDT);

---GB/T 16499-2017 Preparation of electrical and electronic safety publications and basic safety publications and multi-disciplinary shared safety publications

Guidelines for the application of objects (IEC Guide104:2010, NEQ);

---GB/T 20002.4-2015 Drafting of specific content in the standard Part 4.Safety related content in the standard (ISO /IEC

Guide51:2014, MOD).

The following editorial changes have been made to this document.

---In order to be consistent with the existing standard series, the name of this document is changed to "Fire Hazard Test of Electrical and Electronic Products Part 9.Fire Hazard

General Rules for Pre-selection Test Procedures for Risk Assessment Guidelines;

---Add an informative appendix NA, which lists Chinese documents that have a consistent correspondence relationship with the international documents in Appendix A.

Introduction

The design of all electrical and electronic products needs to consider the fire risk and potential fire hazard. Design of components, circuits and parts

And the purpose of material screening is to reduce the potential fire risk to allowable even if foreseeable misuse, failure and failure occur.

s level. The purpose of GB/T 5169 "Fire Hazard Test for Electrical and Electronic Products" is to reduce the number of fires or reduce the severity of fires.

To save lives and protect property. It can be passed.

--- As far as possible to prevent live parts from triggering ignition, if ignition occurs, the scope of the fire should also be limited to the enclosure of electrical and electronic products;

--- Minimize the spread of the flame to the product shell as much as possible, and burn including heat, smoke, toxic or corrosive gases, etc.

The harmful effects of the product are minimized.

GB/T 5169 is now composed of 33 parts, divided into three sub-fields.

--- Fire hazard test evaluation guidelines and terminology standards, including 1 term and 5 evaluation guidelines, aimed at the professional field