

Australian Standard™

Fire hazard testing

**Part 7.2: Toxicity of fire effluent—
Summary and relevance of test methods**



This Australian Standard® was prepared by Committee EL-053, Fire hazard testing—Electrotechnical equipment. It was approved on behalf of the Council of Standards Australia on 23 May 2006.
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The following are represented on Committee EL-053:

- Australian Electrical and Electronic Manufacturers Association
 - Australian Information Industry Association
 - Electrical Compliance Testing Association
 - Electrical Regulatory Authorities Council
 - Energy Networks Association
-

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PREFACE

This Standard was prepared by the Standards Australia Committee EL-053, Fire hazard testing—Electrotechnical equipment.

The objective of this series of standards is to provide the electrotechnology industry and standards writing committees with a series of standards which give guidance on assessing the fire hazard of electrotechnical products.

This Standard is identical with, and has been reproduced from IEC/TR 60695-7-2, Ed 1.0 (2002), *Fire hazard testing - Part 7-2: Toxicity of fire effluent - Summary and relevance of test methods*.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
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The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

Any International Standard referenced should be replaced by an equivalent Australian Standard where one is available. The availability of equivalent Australian Standards can be determined either from the Standards Web Shop at www.standards.com.au or from the annual printed catalogue of Australian Standards.

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INTRODUCTION

The IEC 60695-7 series provides guidance to IEC product committees on the adoption and implementation of the recommendations of ISO TC 92, for the minimization of toxic hazard from fires involving electrotechnical products.

Electrotechnical products, primarily as the objects of a fire, may contribute to the fire hazard due to release of toxic effluent, which may be a significant contributing factor to the overall fire hazard.

IEC product committees incorporating requirements for the assessment of toxic hazard in product standards should note that toxic potency and other measurements of toxicity which are described in this technical report should not be used directly in product specifications. Data from toxic potency test methods should only be used as part of a toxic hazard assessment, in conjunction with other product based reaction to fire data such as mass loss rate.

STANDARDS AUSTRALIA

Australian Standard**Fire hazard testing****Part 7.2: Toxicity of fire effluent—Summary and relevance of test methods**

1 Scope

This technical report gives a brief summary of the test methods that are in common use in the assessment of lethal and sublethal acute toxic potency, and other toxicity tests. It includes special observations on their relevance to real fire scenarios and gives recommendations on their use.

It advises which tests provide toxic potency data which is relevant to real fire scenarios, and which are suitable for use in fire hazard assessment and fire safety engineering.

One of the responsibilities of a technical committee is, wherever applicable, to make use of basic safety publications in the preparation of its publications.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60695-7-1:1993, *Fire hazard testing – Part 7: Guidance on the minimization of toxic hazards due to fires involving electrotechnical products – Section 1: General*

IEC/TS 60695-7-3:1998, *Fire hazard testing – Part 7-3: Toxicity of fire effluent – Use and interpretation of test results*

IEC Guide 104:1997, *The preparation of safety publications and the use of basic safety publications and group safety publications*

ISO/TR 9122-1:1989, *Toxicity testing of fire effluents – Part 1: General*

ISO/IEC 13943:2000, *Fire safety – Vocabulary*

3 Definitions

For the purposes of this part of IEC 60695, definitions taken from ISO/IEC 13943 and IEC 60695-7-3 apply.

3.1**burn**

to undergo combustion

(ISO/IEC 13943, definition 10)