
**Preskušanje požarne ogroženosti – 7-1. del: Toksičnost dimnih plinov –
Splošno navodilo**

Fire hazard testing – Part 7-1: Toxicity of fire effluent – General guidance

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EUROPEAN STANDARD

EN 60695-7-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2004

ICS 13.220.40; 29.020

Supersedes EN 60695-7-1:1995

English version

Fire hazard testing
Part 7-1: Toxicity of fire effluent –
General guidance
(IEC 60695-7-1:2004)

Essais relatifs aux risques du feu
Partie 7-1: Toxicité des effluents du feu -
Lignes directrices générales
(CEI 60695-7-1:2004)

Prüfungen zur Beurteilung
der Brandgefahr
Teil 7-1: Toxizität von Rauch
und/oder Brandgasen –
Allgemeiner Leitfadens
(IEC 60695-7-1:2004)

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This European Standard was approved by CENELEC on 2004-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 89/650/FDIS, future edition 2 of IEC 60695-7-1, prepared by IEC TC 89, Fire hazard testing, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60695-7-1 on 2004-07-01.

This European Standard supersedes EN 60695-7-1:1995.

Although the structure of this standard remains essentially the same, the main changes with respect to EN 60695-7-1:1995 are listed below:

- introduction:
 - an explanation concerning the publication of IEC 60695-7-50,
 - a small-scale toxicity test method,
 - reference to IEC 60695-7-51 which covers the calculation and interpretation of test results,
 - an explanation of the alignment with ISO/TC 92 *Fire safety*;
- the expansion of the scope further clarifies the subject matter and alignment with ISO/TC 92, in particular ISO 13344 and ISO/TS 13571;
- formulae are given for the calculation of the fraction of the incapacitating dose for each of the asphyxiants, carbon monoxide and hydrogen cyanide;
- volume fractions that are expected to cause incapacitation (F values) are given for some of the more important irritants;
- the definitions have been greatly expanded and updated;
- the subclause on factors determining toxic hazard has been expanded;
- new subclauses include general aspects of small-scale test methods, evaluation of test methods and the relevance of toxic hazard data to hazard assessment;
- a flowchart has been added to outline the stages to be followed for test method assessment.

This European Standard is to be used in conjunction with IEC 60695-7-2:2002, *Fire hazard testing – Part 7-2: Toxicity of fire effluent – Summary and relevance of test methods*.

The following dates were fixed:

- | | | |
|--|-------|------------|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2005-04-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2007-07-01 |

Endorsement notice

The text of the International Standard IEC 60695-7-1:2004 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60695-1-1 NOTE Harmonized as EN 60695-1-1:2000 (not modified).

IEC 60695-6-1 NOTE Harmonized as EN 60695-6-1:2001 (not modified).

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC/TR 60695-7-2	2002	Fire hazard testing Part 7-2: Toxicity of fire effluent - Summary and relevance of test methods	-	-
IEC/TS 60695-7-3	2004	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/IEC 13943	2000	Fire safety - Vocabulary	EN ISO 13943	2000
ISO/TR 9122	series	Toxicity testing of fire effluents	-	-
ISO 13344	1996	Determination of the lethal toxic potency of fire effluents	-	-
ISO/TS 13571	2002	Life-threatening components of fire - Guidelines for the estimation of time available for escape using fire data	-	-

NORME
INTERNATIONALE
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STANDARD

CEI
IEC

60695-7-1

Deuxième édition
Second edition
2004-05

PUBLICATION FONDAMENTALE DE SÉCURITÉ
BASIC SAFETY PUBLICATION

Essais relatifs aux risques du feu –

**Partie 7-1:
Toxicité des effluents du feu –
Lignes directrices générales**

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Fire hazard testing –
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Part 7-1: [SIST EN 60695-7-1:2005](https://standardsiteh.ai/catalog/standards/sist/66cad3fd-1fb2-4e2b-9a45-71b24f1d691b/sist-en-60695-7-1-2005)

**Toxicity of fire effluent –
General guidance**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIRE HAZARD TESTING –

Part 7-1: Toxicity of fire effluent –
General guidance

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60695-7-1 has been prepared by IEC technical committee 89: Fire hazard testing.

It has the status of a basic safety publication in accordance with IEC Guide 104.

This second edition cancels and replaces the first edition published in 1993. It constitutes a technical revision.

Although the structure of this standard remains essentially the same, the main changes with respect to the previous edition are listed below:

- Introduction
 - an explanation concerning the publication of IEC 60695-7-50,
 - a small-scale toxicity test method,
 - reference to IEC 60695-7-51 which covers the calculation and interpretation of test results,
 - an explanation of the alignment with ISO/TC 92 *Fire safety*.
- The expansion of the scope further clarifies the subject matter and alignment with ISO/TC 92, in particular ISO 13344 and ISO/TS 13571.
- Formulae are given for the calculation of the fraction of the incapacitating dose for each of the asphyxiants, carbon monoxide and hydrogen cyanide.
- Volume fractions that are expected to cause incapacitation (*F* values) are given for some of the more important irritants.
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- A flowchart has been added to outline the stages to be followed for test method assessment.

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The text of this standard is based on the following documents:

FDIS	Report on voting
89/650/FDIS	89/661/RVD

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Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This International Standard is to be used in conjunction with IEC 60695-7-2:2002, *Fire hazard testing – Part 7-2: Toxicity of fire effluent – Summary and relevance of test methods*.

This standard forms part 7-1 of IEC 60695, which is published under the general heading *Fire hazard testing*. Part 7 consists of the following parts:

- Part 7-1: Toxicity of fire effluent – General guidance
- Part 7-2: Toxicity of fire effluent – Summary and relevance of test methods
- Part 7-3: Toxicity of fire effluent – Use and interpretation of test results
- Part 7-50: Toxicity of fire effluent – Estimation of toxic potency – Apparatus and test method
- Part 7-51: Toxicity of fire effluent – Estimation of toxic potency – Calculation and interpretation of test results

The committee has decided that the contents of this publication will remain unchanged until 2009. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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