

MÄNGUASJADE OHUTUS. OSA 15: FORMAMIIDI
SISALDUS MÄNGUASJADE VAHTMATERJALIDES

Safety of toys – Part 15: Formamide in foam toy
materials (content)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 71-15:2025 sisaldab Euroopa standardi EN 71-15:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 26.02.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 71-15:2025 consists of the English text of the European standard EN 71-15:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 26.02.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

Safety of toys - Part 15: Formamide in foam toy materials (content)

Sécurité des jouets - Partie 15 : Formamide dans les
matériaux-jouets en mousse (teneur)

Sicherheit von Spielzeug - Teil 15: Formamid in
Spielzeugmaterial aus Schaumstoff (Gehalt)

This European Standard was approved by CEN on 25 February 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (EN 71-15:2025) has been prepared by Technical Committee CEN/TC 52 “Safety of toys”, the secretariat of which is held by DS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2025, and conflicting national standards shall be withdrawn at the latest by August 2025.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States

For relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Additional information on the background and rationale for various requirements are given in Annex A.

This document constitutes the 15th part of the EN 71 series of standards on safety of toys.

EN 71, Safety of toys, consists of the following parts:

- *Part 1: Mechanical and physical properties*
- *Part 2: Flammability*
- *Part 3: Migration of certain elements*
- *Part 4: Experimental sets for chemistry and related activities*
- *Part 5: Chemical toys (sets) other than experimental sets*
- *Part 7: Finger paints — Requirements and test methods*
- *Part 8: Activity toys for domestic use*
- *Part 10: Organic chemical compounds — Sample preparation and extraction*
- *Part 11: Organic chemical compounds — Methods of analysis*
- *Part 12: N-Nitrosamines and N-nitrosatable substances*
- *Part 13: Olfactory board games, cosmetic kits and gustative games*
- *Part 14: Trampolines for domestic use*
- *Part 15: Formamide in foam toy materials (content) (the present document)*
- *Part 16: Certain chlorinated phosphorus flame retardants (TCEP, TCPP, TDCP) in toy materials*
- *Part 17: Certain isothiazolinones (MIT, CIT, BIT) in aqueous toy materials*
- *Part 18: Phenol in aqueous (content) and polymeric (migration) toy materials*

- *Part 19: Migration of bisphenol A from toy materials*
- *Part 20: Microbiological safety of toys containing accessible aqueous media* (under development)

It is up to the user of the standard to determine whether or not a toy is included in the scope of several of the above parts of the EN 71-series, and to apply each applicable standard accordingly. Normative references from one part of the EN 71-series to another, are therefore normally not provided in the individual parts.

NOTE 1 In addition to the above parts of EN 71, the following deliverables have been published:

- CEN/TR 15071, *Safety of toys — National translations of warnings and instructions for use in the EN 71 series*,
- CEN/TR 15371 (all parts), *Safety of toys — Interpretations*,
- CEN/TR 16918, *Safety of toys — Children's mouthing behaviour in contact with toys*,
- CEN/TR 17695, *Safety of toys - Mechanical and physical properties — Guidance on categorization of projectile toys within EN 71-1*,
- CEN/TS 17973, *Safety of toys - Categorization of slime type materials*, and
- CEN ISO/TR 8124-8, *Safety of toys — Part 8: Age determination - First age grade for the appropriate play of toys*.

NOTE 2 Words in *italics* (apart from document titles) are defined in Clause 3 (Terms and definitions).

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

According to article 46 of Directive 2009/48/EC on the safety of toys [1] the “Commission may adopt specific limit values for chemicals used in toys intended for use by children under 36 months or in other toys intended to be placed in the mouth”.

In November 2015 the European Commission amended Appendix C to Annex II to this Directive accordingly and adopted a specific limit value for formamide in toys (see Commission Directive (EU) 2015/2115 [2]):

“20 µg/m³ (emission limit) after a maximum of 28 days from commencement of the emission testing of foam toy materials containing more than 200 mg/kg (cut-off limit based on content)”.

For more information about the legal limit value see A.2.

This document provides a test method to determine if the total content of formamide in *foam toy materials* is below the 200 mg/kg cut-off limit.

WARNING — The application of the test method specified in this document can involve hazardous materials, operations and equipment. The document does not purport to address all of the safety or environmental problems associated with its use.

1 Scope

This document specifies requirements for formamide in *foam toy materials* and a test method for determining the content of formamide in *foam toy materials*. This document is applicable to toys intended for use by children under 36 month or other toys intended to be placed in the mouth.

NOTE 1 The document provides a test method to determine if the total content of formamide in *foam toy materials* is below the 200 mg/kg cut-off limit. *Foam toy materials* exceeding this limit are subject to the emission limit specified in Appendix C to Annex II to Directive 2009/48/EC.

NOTE 2 The European Commission Guidance Document No 11 on the Application of Directive 2009/48/EC on the Safety of Toys [3] provides guidelines to help on the classification of toys intended for children under 36 months of age or of 36 months and over.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

foam toy material

polymeric material whose density is reduced by the presence of numerous small cavities (cells), interconnected or not, dispersed throughout the material

[SOURCE: IEC Electropedia, definition 212-15-24; modified: “plastic” replaced by “polymeric material”]

3.2

sample

representative, homogenous part of the *foam toy material* subject to testing

4 Requirements

The emission of formamide from *foam toy materials* shall not exceed 20 µg/m³ (emission limit) after a maximum of 28 days from commencement of the emission testing. Emission testing is not necessary when the formamide content does not exceed 200 mg/kg (cut-off limit based on content) when tested according to Clauses 7 and 8.

NOTE The “emission limit” (20 µg/m³) and the “cut-off limit based on content” (200 mg/kg) are specified in Directive 2009/48/EC [1], and were introduced by Commission Directive (EU) 2015/2115 [2]. *Foam toy material* containing more than 200 mg/kg (cut-off limit based on content) are subject to the emission limit (20 µg/m³ after a maximum of 28 days from commencement of the emission testing).

5 Principle

The *sample* is cut into small pieces and subsequently extracted with acetone at 70 °C using an ultrasonic bath. The extract is analysed by gas chromatography with mass spectrometer (GC-MS).