

Mänguasjade ohutus. Osa 3: Teatud elementide migratsioon (konsolideeritud tekst)

Safety of toys - Part 3: Migration of certain elements
(consolidated text)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 71-3:1999+A1:2000 sisaldab Euroopa standardi EN 71-3:1994+A1:2000+A1:2000/AC:2000+AC:2002 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 21.12.1994.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 71-3:1999+A1:2000 consists of the English text of the European standard EN 71-3:1994+A1:2000+A1:2000/AC:2000+AC:2002.

This standard is ratified with the order of Estonian Centre for Standardisation dated and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 21.12.1994.

The standard is available from Estonian standardisation organisation.

ICS 97.200.50

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

Right to reproduce and distribute Estonian Standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without permission in writing from Estonian Centre for Standardisation.

If you have any questions about standards copyright, please contact Estonian Centre for Standardisation:
Aru str 10 Tallinn 10317 Estonia; www.evs.ee; Phone: +372 605 5050; E-mail: info@evs.ee

EUROPEAN STANDARD

EN 71-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 1994

ICS 97.200.50

Supersedes EN 71-3:1988

Descriptors: Toys, safety requirements, accident prevention, children, materials, toxicity, tests, determination, migrations, metals

English version

Safety of toys - Part 3: Migration of certain elements

Sécurité des jouets - Partie 3: Migration de certains éléments

Sicherheit von Spielzeug - Teil 3: Migration bestimmter Elemente

This European Standard was approved by CEN on 1994-12-13. CEN 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 CEN member.

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

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

FOREWORD

This European Standard was prepared by CEN/TC 52 "Safety of toys", of which the secretariat is held by DS.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

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 June 1995, and conflicting national standards shall be withdrawn at the latest by June 1995.

This standard constitutes the third part of the European Standard on "Safety of toys".

This part should be read in conjunction with part 1.

This standard specifies requirements and test methods for the migration of the elements antimony, arsenic, barium, cadmium, chromium, lead, mercury and selenium from toy material.

This standard contains 4 annexes:

- Annex A (normative) - Test method to determine acidity of 1,1,1-trichloroethane.
- Annex B (normative) - Sieve requirements.
- Annex C (informative) - Preparation and analysis of test portions.
- Annex D (informative) - Background and rationale for the requirements and test methods.

This standard is the result of the revision of EN 71-3:1988.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

INTRODUCTION

This European Standard for 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 6: Graphical symbol for age warning labelling.

This standard is Part 3 of the European Standard on Safety of Toys, EN 71.

The requirements of this standard are based on bioavailability resulting from the use of toys and should not as an objective exceed the below mentioned levels per day:

- 0,2 μg for antimony;
- 0,1 μg for arsenic;
- 25,0 μg for barium;
- 0,6 μg for cadmium;
- 0,3 μg for chromium;
- 0,7 μg for lead;
- 0,5 μg for mercury;
- 5,0 μg for selenium.

For the interpretation of these figures it has been necessary to identify an upper limit for the ingestion of toy material. Very limited data have been available for identifying this upper limit. As a working hypothesis, a summed average daily intake for the various toy materials has been gauged at the currently accepted figure of 8 mg/day, being aware that in certain individual cases these figures might be exceeded.

Combining the daily intake with the bioavailability figures listed above, limits are obtained for various toxic elements in microgram per gram (milligram per kilogram) and are detailed in Table 1. The figures obtained have been adjusted to minimize children's exposure to toxic elements and to ensure analytical feasibility taking into account limits achievable under current manufacturing conditions. (See annex D).

1 Scope

This Part of this European Standard specifies requirements and test methods for the migration of the elements antimony, arsenic, barium, cadmium, chromium, lead, mercury and selenium from toy materials and from parts of toys except materials not accessible (see Part 1 of this standard).

Packaging materials are not included unless they are part of the toy or have intended play value. (See annex D)

When appropriate, the toy is subjected to relevant tests, specified in Part 1 of this standard, before the accessibility is considered.

Requirements are included for the migration from the following toy materials:

- coatings of paints, varnishes, lacquers, printing inks, polymers and similar coatings (see 8.1);
- polymeric and similar materials, including laminates, whether textile reinforced or not, but excluding other textiles (see 8.2);
- paper and paper board (see 8.3);
- textiles, whether natural or synthetic (see 8.4);
- glass/ceramic/metallic materials (see 8.5);
- other materials whether mass coloured or not (e.g. wood, fibre board, hard board, bone and leather) (see 8.6);
- materials intended to leave a trace (e.g. the graphite materials in pencils and liquid ink in pens) (see 8.7);
- pliable modelling materials, including modelling clays, and gels (see 8.8);
- paints, including finger paints, varnishes, lacquers, glazing powders and similar materials in solid or in liquid form appearing as such in the toy (see 8.9).

Toys and parts of toys which, due to their accessibility, function, mass, size or other characteristics, obviously exclude any hazard due to sucking, licking or swallowing, bearing in mind the normal and foreseeable behaviour of children, are not covered by this Part of EN 71.

NOTE: For the purposes of this standard, the following criteria are considered appropriate in the categorisation of sucking, licking or swallowing:

- all intended food/oral contact toys, cosmetic toys and writing instruments categorised as toys;
- toys intended for children up to 6 years of age, i.e. all accessible parts and components where there is a probability that those parts or components may come into contact with the mouth. (See annex D).

2 Normative references

This standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- EN 71-1 Safety of toys - Part 1: Mechanical and physical properties
- ISO 3696 Water for analytical laboratory use - Specification and test methods

3 Definitions

For the purposes of this standard the following definitions apply:

- 3.1 base material:** Material upon which coatings may be formed or deposited.
- 3.2 coating:** All layers of material formed or deposited on the base material or toy and includes paints, varnishes, lacquers, inks, polymers or other substances of a similar nature, whether they contain metallic particles or not, of a similar nature no matter how it has been applied to the toy and which can be removed by scraping with a sharp blade.
- 3.3 detection limit of a method:** Three times the standard deviation of the blank value.
- 3.4 other materials, whether mass coloured or not:** Materials such as wood, leather and other porous substances which may absorb colouring matter without forming a coating.
- 3.5 paper and paper board:** A maximum mass per unit area of 400 g/m^2 is the limit for treating material under this category. Above this mass per unit area the substance is treated as "other material" and may be fibre board or hard board etc.
- 3.6 scraping:** Mechanical removal of coatings down to the base material.
- 3.7 toy material:** All the accessible materials present in toys.