



Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

**ILNAS-EN 71-10:2005**

**Safety of toys - Part 10: Organic  
chemical compounds - Sample  
preparation and extraction**

Sécurité des jouets - Partie 10: Composés  
organiques chimiques - Préparation et  
extraction des échantillons

Sicherheit von Spielzeug - Teil 10:  
Organisch-chemische Verbindungen -  
Probenvorbereitung und Extraktion

**12/2005**



## National Foreword

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English Version

## Safety of toys - Part 10: Organic chemical compounds - Sample preparation and extraction

Sécurité des jouets - Partie 10: Composés chimiques organiques - Procédures de préparation d'échantillon et d'extraction

Sicherheit von Spielzeug - Teil 10: Organisch-chemische Verbindungen - Probenvorbereitung und Extraktion

This European Standard was approved by CEN on 6 October 2005.

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.

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 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, 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.



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## Foreword

This European Standard (EN 71-10:2005) 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of an identical text or by endorsement, at the latest by June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

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 EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this European Standard.

This European Standard constitutes part 10 of the European Standard on Safety of Toys.

This part should be read in conjunction with parts 9 and 11.

This European Standard defines the sample preparation and extraction procedures used to address potential exposure to organic compounds from ingestion, mouthing, inhalation, skin contact with solids and skin and eye contact with liquids.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: 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.

## Introduction

The European Standard EN 71 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 symbols for age warning labelling*
- Part 7: *Finger paints – Requirements and test methods*
- Part 8: *Swings, slides and similar activity toys for indoor and outdoor family domestic use*
- Part 9: *Organic chemical compounds – Requirements*
- Part 10: *Organic chemical compounds – Sample preparation and extraction*
- Part 11: *Organic chemical compounds – Methods of analysis*

The standards EN 71-9, EN 71-10 and EN 71-11 were mandated by the European Commission (M/229) to address the risks presented by organic compounds in toys by taking into account the potential exposure and toxicological effects of those substances considered to present the greatest risk to health.

This European Standard specifies the procedures for preparing and extracting samples of toy materials prior to analysis by the methods described in EN 71-11.

This part should be read in conjunction with EN 71-9, which contains requirements for certain organic compounds in toys, and EN 71-11, which specifies methods of analysis.

This European Standard takes into account the opinion of the Toxicology Section of the Scientific Advisory Committee published in 1992 (EUR 13976), which recommended that certain groups of chemical compounds used in toys and toy materials need to be given special attention. In drafting this European Standard CEN/TC 52 has considered organic chemicals that can be classified within the following groups:

- Solvents
- Preservatives
- Plasticisers (excluding phthalate plasticisers)<sup>1</sup>
- Flame retardants
- Monomers
- Biocides (wood preservatives)
- Processing aids
- Colouring agents

During the development of this European Standard, CEN/TC 52 has considered the requirements set out in Council Directive 82/711/EEC as amended and its supporting standards.

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<sup>1</sup> Phthalate plasticisers were specifically excluded from the scope of mandate M/229.

## 1 Scope

This Part 10 of the European Standard EN 71 for safety of toys specifies sample preparation and extraction procedures for establishing the release or content of organic compounds from those toys for which requirements exist in EN 71-9.

## 2 Normative references

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

EN 71-1, *Safety of toys – Part 1: Mechanical and physical properties*

EN 71-9, *Safety of toys – Part 9: Organic chemical compounds – Requirements*

EN 71-11:2005, *Safety of toys – Part 11: Organic chemical compounds – Methods of analysis*

EN 20105-A03, *Textiles – Tests for colour fastness – Part A03: Grey scale for assessing staining*

ISO 105-F10, *Textiles – Tests for colour fastness – Part F10: Specification for adjacent fabric: Multifibre*

## 3 Terms and definitions

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

### 3.1 (see B.2)

#### **accessible**

contact with the articulated probe when tested in accordance with the 'accessibility-of-a-part-or-component' test in EN 71-1

### 3.2

#### **accessible liquid**

liquid in or on a toy or accompanying a toy to which the child is likely to become exposed during normal or foreseeable use of the toy

NOTE Liquid paints, bubble liquids, ink in pens, liquids provided with toys for squirting are examples of accessible liquids

### 3.3 (see B.3)

#### **first-action method**

method of analysis designed to show the compliance of a toy or toy material with the requirements of EN 71-9 for a particular compound or group of compounds

### 3.4

#### **final-action method**

method of analysis for use when compliance cannot be demonstrated by a *first-action method*

### 3.5 (see B.4)

#### **laboratory sample**

single toy in the form in which it is marketed or intended to be marketed