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BS EN 71-12:2016



BSI Standards Publication

Safety of toys

Part 12: N-Nitrosamines and N-nitrosatable substances

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This British Standard is the UK implementation of EN 71-12:2016. It supersedes BS EN 71-12:2013 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CW/15, Safety of toys.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Sicherheit von Spielzeug - Teil 12: N-Nitrosamine und N-nitrosierbare Stoffe

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 71-12:2017) 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of an identical text or by endorsement, at the latest by June 2017, and conflicting national standards shall be withdrawn at the latest by June 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 71-12:2013.

This document 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 2009/48/EC.

For relationship with EU Directive 2009/48/EC, see informative Annex ZA, which is an integral part of this document.

Additional information on the rationale for various requirements is given in Annex A. Annex B provides details of significant technical changes between this European Standard and the previous edition.

This European Standard constitutes the 12th part of the European Standard on safety of toys.

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 7: Finger paints — Requirements and test methods;*
- *Part 8: Activity toys for 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;*
- *Part 12: N-nitrosamines and N-nitrosatable substances;*
- *Part 13: Olfactory board games, gustative board games, cosmetic kits and gustative kits;*
- *Part 14: Trampolines for domestic use.*

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NOTE 1 In addition to the above parts of EN 71, the following guidance documents have been published: CEN Technical Report CEN/TR 15071, *Safety of toys — National translations of warnings and instructions for use in EN 71*, and CEN Technical Report CEN/TR 15371 (all parts), *Safety of toys — Interpretations*.

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

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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1 Scope

This European Standard specifies the requirements and test methods for *N-nitrosamines* and *N-nitrosatable substances* for:

- toys and parts of toys made from *elastomers* and intended for use by children under 36 months;
- toys and parts of toys made from *elastomers* and intended to be placed in the mouth;
- *finger paints* for children under 36 months.

EXAMPLE Examples of toys made from *elastomers* are balloons and teethers.

NOTE With regard to *elastomers*, up to now *N-nitrosamines* and *N-nitrosatable substances* have mainly been detected in vulcanized materials.

2 Normative references

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

EN ISO 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696)*

3 Terms and definitions

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

3.1

finger paint

aqueous semi-solid or liquid, coloured mixture specially designed for children to apply directly to suitable surfaces with the fingers and hands

[SOURCE: EN 71-7:2014, definition 3.1]

3.2

elastomer

flexible cross-linked macro-molecular material which returns rapidly to approximately its initial dimensions and shape after substantial deformation by stress and release of the stress at room temperature

Note 1 to entry: Not all elastomers are likely to contain *N-nitrosamines* and *N-nitrosatable substances*. For further guidance on possible sources of *N-nitrosamines* and *N-nitrosatable substances* in elastomers the term elastomer and other related aspects see A.1.

[SOURCE: EN ISO 472:2013, 2.327, modified: the phrases "flexible cross-linked", "approximately" and "at room temperature" and note 1 to entry added and the phrase "a weak" deleted]

3.3

N-nitrosamine

substance characterised by the $-N-N=O$ functional group, usually formed by the reaction of an amine with a nitrosating agent at acidic pH

Note 1 to entry: The reacting amines primarily are secondary amines.

Note 2 to entry: An example for a nitrosating agent is nitrite.