

STN	Bezpečnosť hračiek Časť 7: Farby na nanášanie prstami Požiadavky a skúšobné metódy	STN EN 71-7+A1
		94 3094

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola označená vo Vestníku ÚNMS SR č. 02/18

Obsahuje: EN 71-7:2014+A1:2017

Oznámením tejto normy sa ruší
STN EN 71-7 (94 3094) z marca 2016

125998

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2018

Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnôžovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

**EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM**

EN 71-7:2014+A1

September 2017

ICS 97.200.50

Supersedes EN 71-7:2014

English Version

**Safety of toys - Part 7: Finger paints - Requirements and
test methods**

Sécurité des jouets - Partie 7: Peintures au doigt -
Exigences et méthodes d'essai

Sicherheit von Spielzeug - Teil 7: Fingermalfarben -
Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 8 February 2014 and includes Amendment 1 approved by CEN on 31 August 2017.

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

CEN members are the national standards bodies of 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

	Page
European foreword.....	5
Introduction	7
1 Scope.....	8
2 Normative references.....	8
3 Terms and definitions	8
4 Requirements	9
4.1 General.....	9
4.2 Colourants	9
4.3 Preservatives	10
4.4 Migration of certain elements	10
4.5 Limits for impurities	10
4.5.1 Limits for primary aromatic amines	10
4.5.2 Limits for other impurities	11
4.6 Taste and smell	12
4.7 pH-value	12
4.8 Binding agents, extenders, humectants and surfactants	12
4.9 N-Nitrosamines	12
4.10 Containers.....	13
5 Product information	13
5.1 General.....	13
5.2 Marking.....	13
5.2.1 Primary packaging.....	13
5.2.2 Container.....	14
Annex A (informative) Non-exhaustive list of colourants which are commonly used in finger paints, and need to be in compliance with both the general and specified purity requirements.....	15
Annex B (normative) List of preservatives allowed for use in finger paints	21
Annex C (informative) Ingredients used in the manufacture of finger paints.....	26
Annex D (normative) Method for the detection of certain azo colourants and determination of free primary aromatic amines.....	28
D.1 General.....	28
D.2 Reagents	29
D.3 Apparatus.....	30
D.4 Instrumentation	30
D.5 Sampling procedure	30
D.6 Procedure.....	30
D.7 Calculation	40
D.8 Precision.....	41
D.8.1 Linearity	41

D.8.2	Limits of Detection (LOD) and Quantification (LOQ)	41
D.8.3	Repeatability and reproducibility data for soluble aromatic amines	42
D.8.4	Repeatability and reproducibility data for reductively cleaved aromatic amines.....	43
D.8.5	Recovery	44
D.9	Report	46
D.10	Additional Information.....	46
Annex E (normative) Method for the determination of hexachlorobenzene, polychlorinated biphenyls and benzo[α]pyrene.....		47
E.1	Principle.....	47
E.2	Standards, reagents and solvents	47
E.3	Apparatus	49
E.4	Instrumentation.....	49
E.5	Sampling	50
E.6	Procedure	50
E.6.1	General	50
E.6.2	Sample preparation	50
E.6.3	Solvent extraction.....	50
E.6.4	Solid phase extraction.....	51
E.6.5	Sample concentration for determining HCB and PCB congeners.....	51
E.6.6	Sample concentration for determining B[α]P	51
E.6.7	Gas chromatography conditions	51
E.6.8	Mass spectrometry.....	52
E.6.9	SIM mode	52
E.7	Calculation.....	57
E.8	Precision	59
E.8.1	Linearity.....	59
E.8.2	Limits of detection (LOD) and Quantification (LOQ)	59
E.8.3	Repeatability and reproducibility data for HCB, PCB congeners and B[α]P	59
E.8.4	Recovery	60
E.9	Report	60
E.10	Additional information.....	61
Annex F (informative) Rationale.....		64
F.1	<i>Finger paints</i> (see 3.1 and 3.2)	64
F.2	<i>Colourants</i> (see 4.2.1).....	64
F.3	<i>Preservatives</i> (see 4.3)	64
F.4	<i>Elements</i> (see 4.4)	64
F.5	<i>Primary aromatic amines</i> (see 4.5.1.2, Tables 1 and 2 and Annex D)	64

F.6	Limit for Benzo[α]Pyrene (see 4.5.2).....	65
F.7	Embittering agents (see 4.6)	65
F.8	pH value (see 4.7).....	65
F.9	N-Nitrosamines (see 4.9).....	65
F.10	Container (see 4.10).....	65
F.11	Labelling phrases (see 5.2.1.2).....	66
F.12	List of polychlorinated biphenyl congeners (see Annex E).....	66
F.13	Reference materials (see Annex D and E)	66
F.14	PCB Analytical Method (see E.6)	67
Annex G (informative)	Significant technical changes between this European Standard and the previous version	68
Annex ZA (informative)	Relationship between this European Standard and the Essential Requirements of EU Directive 2009/48/EC	70
Bibliography		71

European foreword

This document (EN 71-7:2014+A1:2017) 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 March 2018 and conflicting national standards shall be withdrawn at the latest by March 2018.

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 71-7:2014~~ EN 71-7:2014+A1.

This document includes Amendment 1 approved by CEN on 2017-08-31.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ~~EN 71-7:2014~~ EN 71-7:2014+A1.

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.

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 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, cosmetic kits and gustative games*
- *Part 14: Trampolines for domestic use*

A1 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/TR 15371 (all parts), *Safety of toys - Interpretations*. **A1**

This part 7 of the EN 71 series is intended to be read in conjunction with EN 71, part 1.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard contains requirements which are intended to reduce the risks to children when *finger paints* are used as intended or in a foreseeable way, bearing in mind the behaviour of children. It is intended to complete the essential safety requirements of Directive 2009/48/EC by providing special requirements for *finger paints*.

It is recognized that *finger paints* when compared to other toy products present different risks because of the intended use by fingers or hands and the age of the child. For example, prolonged skin contact or possible ingestion of paint material cannot be ruled out. Therefore, the safety requirements outlined in other parts of EN 71 needed to be expanded upon for *finger paints*. In order to address the risks associated with the use of *finger paints* by children, this part of EN 71 contains requirements relating to preservatives as well as other ingredients that may be used in the manufacture of *finger paints* and requirements relating to impurities, migration of certain elements and other attributes.

Chemical Abstract Service Registry Number (CAS), European Inventory of Existing Chemical Substances Number (EINECS) or Colour Index Number given in the tables are provided for information purposes only.

1 Scope

This part of EN 71 specifies requirements for the substances and materials used in *finger paints* and applies to *finger paints* only.

Additional requirements are specified for markings, labelling and containers.

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 71-3, *Safety of toys - Part 3: Migration of certain elements*

EN 71-12, *Safety of toys - Part 12: N-Nitrosamines and N-nitrosatable substances*

EN ISO 787-9, *General methods of test for pigments and extenders - Part 9: Determination of pH value of aqueous suspension (ISO 787-9)*

koniec náhľadu – text ďalej pokračuje v platnej verzii STN