

Nederlandse norm

NEN-EN 71-4

(en)

Safety of toys - Part 4: Experimental sets for chemistry and related activities

Vervangt NEN-EN 71-4:1991;
NEN-EN 71-4:1991/A1:1998;
NEN-EN 71-4:1991/A2:2003;
NEN-EN 71-4:1991/A3:2007;
NEN-EN 71-4:1991/C1:2004

ICS 97.200.50
september 2009

Als Nederlandse norm is aanvaard:
 - EN 71-4:2009, IDT

VOORBEELD
 Preview

Normcommissie 330002 "Veiligheid van speelgoed"

Apart from exceptions provided by the law, nothing from this publication may be duplicated and/or published by means of photocopy, microfilm, storage in computer files or otherwise, which also applies to full or partial processing, without the written consent of the Netherlands Standardization Institute.

The Netherlands Standardization Institute shall, with the exclusion of any other beneficiary, collect payments owed by third parties for duplication and/or act in and out of law, where this authority is not transferred or falls by right to the Reproduction Rights Foundation.

Auteursrecht voorbehouden. Behoudens uitzondering door de wet gesteld mag zonder schriftelijke toestemming van het Nederlands Normalisatie-instituut niets uit deze uitgave worden verveelvoudigd en/of openbaar gemaakt door middel van fotokopie, microfilm, opslag in computerbestanden of anderszins, hetgeen ook van toepassing is op gehele of gedeeltelijke bewerking.

Het Nederlands Normalisatie-instituut is met uitsluiting van ieder ander gerechtigd de door derden verschuldigde vergoedingen voor verveelvoudiging te innen en/of daartoe in en buiten rechte op te treden, voor zover deze bevoegdheid niet is overgedragen c.q. rechtens toekomt aan de Stichting Reprorecht.

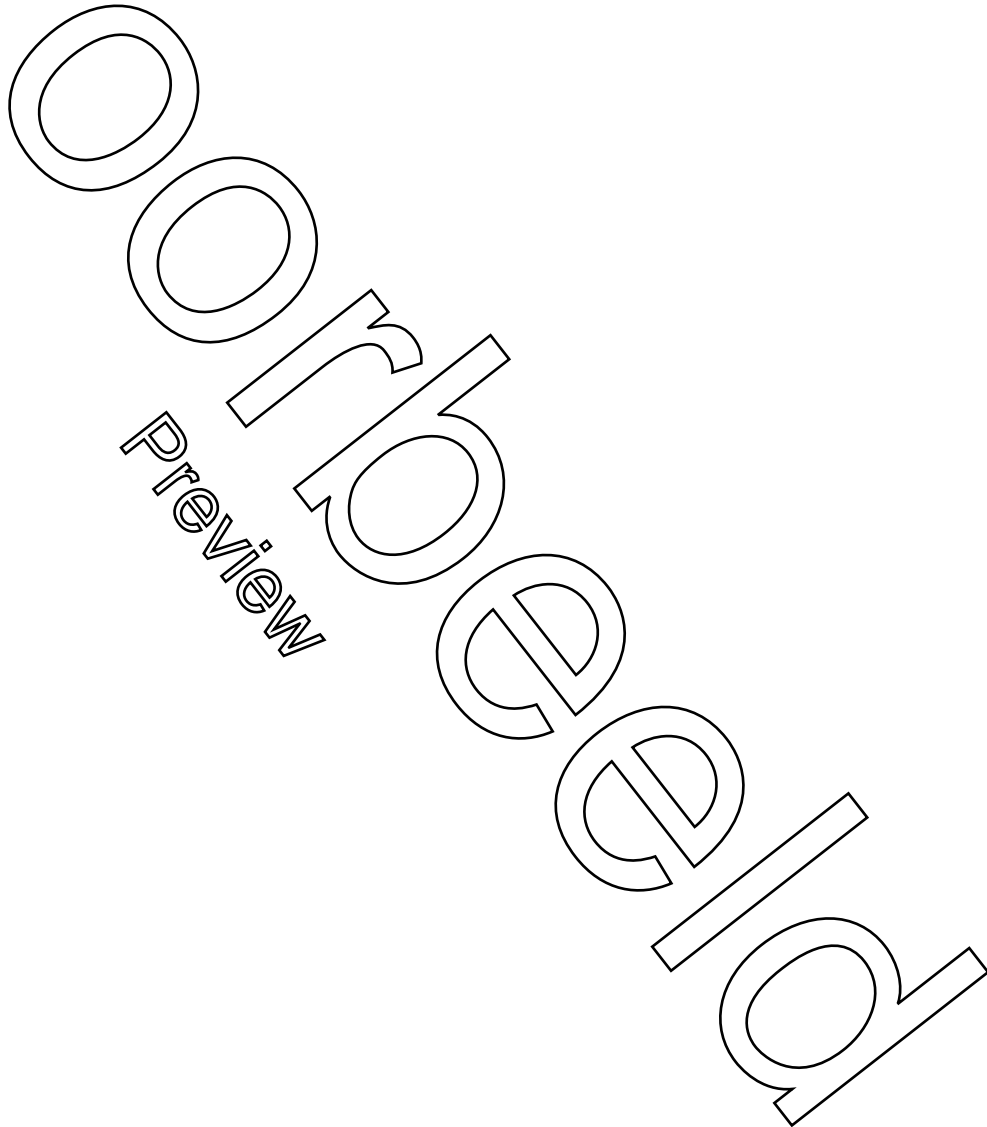
Although the utmost care has been taken with this publication, errors and omissions cannot be entirely excluded. The Netherlands Standardization Institute and/or the members of the committees therefore accept no liability, not even for direct or indirect damage, occurring due to or in relation with the application of publications issued by the Netherlands Standardization Institute.

Hoewel bij deze uitgave de uiterste zorg is nagestreefd, kunnen fouten en onvolledigheden niet geheel worden uitgesloten. Het Nederlands Normalisatie-instituut en/of de leden van de commissies aanvaardden derhalve geen enkele aansprakelijkheid, ook niet voor directe of indirecte schade, ontstaan door of verband houdend met toepassing van door het Nederlands Normalisatie-instituut gepubliceerde uitgaven.

Nederlands voorwoord

Voor de in deze norm vermelde normatieve verwijzingen bestaan in Nederland de volgende equivalenten:

<u>vermelde norm</u>	<u>Nederlandse norm</u>	<u>titel</u>
EN 71-1	NEN-EN 71-1+A9	Veiligheid van speelgoed - Deel 1: Mechanische en fysische eigenschappen
EN ISO 868	NEN-EN-ISO 868	Kunststoffen en eboniet - Bepaling van de indrukhardheid met behulp van een hardheidsmeter (Shore-hardheid)
EN ISO 8317 ISO 7619	NEN-ISO 7619	- Rubber - Bepaling van de indrukingshardheid met een zakhardsmeter



Oorbereid
Preview

Voorbeeld
Preview

English Version

Safety of toys - Part 4: Experimental sets for chemistry and related activities

Sécurité des jouets - Partie 4: Coffrets d'expériences chimiques et d'activités connexes

Sicherheit von Spielzeug - Teil 4: Experimentierkästen für chemische und ähnliche Versuche

This European Standard was approved by CEN on 30 July 2009.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction.....	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	5
4 Chemical substances.....	6
5 Equipment.....	12
5.1 General requirements.....	12
5.2 Containers and glassware.....	12
5.2.1 Test tubes.....	12
5.2.2 Other glassware.....	12
5.2.3 Reagent containers.....	12
5.2.4 Closures.....	13
5.2.5 Empty containers.....	13
5.2.6 Test method for borosilicate glass.....	13
5.3 Equipment for the transfer of liquid.....	14
5.4 Test tube stand and test tube holder.....	14
5.5 Eye protection (see 5.1).....	14
6 Marking.....	15
6.1 General requirements.....	15
6.2 Marking of individual containers and glassware.....	15
6.3 Marking of the primary packaging.....	16
7 Contents list with warnings and first aid information.....	16
8 Instructions for use.....	17
8.1 General instructions.....	17
8.2 Advice for supervising adults.....	17
8.3 Safety rules.....	18
Annex A (normative) Test methods for closures of reagent containers.....	19
A.1 Closure test A.....	19
A.2 Closure test B.....	19
A.3 Closure test C.....	19
Annex B (informative) Rationale on classification of substances and preparations.....	20
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EC Directive 88/378/EEC.....	21
Bibliography.....	22

Foreword

This document (EN 71-4:2009) has been prepared by Technical Committee CEN/TC 52 "", 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 February 2010, and conflicting national standards shall be withdrawn at the latest by February 2010.

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

This document supersedes EN 71-4:1990, EN 71-4/A1:1998, EN 71-4/A2:2003 and EN 71-4/A3:2007.

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 88/378/EEC.

For relationship with EU Directive 88/378/EEC, see informative Annex ZA, which is an integral part of this European Standard.

The significant changes from the previous edition of this standard are:

- the foreword has been updated;
- the introduction has been updated;
- the amendments have been consolidated.

This standard is part of series of standards for safety of toys.

This Part 4 shall be read in conjunction with Part 1.

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*
- 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*

NOTE In addition to the above parts of EN 71, the following guidance documents have been published: CEN Report, CR 14379:2002, *Classification of toys - Guidelines*, CEN Technical Report CEN/TR 15071:2005, *Safety of toys - National translations of warnings and instructions for use in EN 71*.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This European Standard EN 71-4 is intended to reduce the risks which may present health hazards to a child when the experimental sets are used as intended or in a foreseeable way, bearing in mind the normal behaviour of children.

During use of these experimental sets, the hazards should be kept to a minimum by the provision of appropriate information to make the experiments safe and controllable. Warning phrases and instructions for use are required for experimental sets according to this European Standard.

As a general rule, toys are designed and manufactured for particular ages of children. Their characteristics are related to the age and stage of development of the children, and their use presupposes certain aptitudes. Therefore age requirements are given.

The requirements of this European Standard do not release parents or carers from their responsibility of watching over the child while he or she is playing. On the contrary, these sets require close supervision by adults.

Copyright
Preview

1 Scope

This part of the European Standard EN 71 specifies requirements for the maximum amount of certain substances and preparations used in experimental sets for chemistry and related activities.

These substances and preparations are

- chemicals classified as dangerous by the Directives on dangerous substances [1] and dangerous preparations [2] (including substances which have been self-classified according to the requirements of these Directives),
- substances and preparations which in excessive amounts may harm the health of the children using them but which are not classified as dangerous by the above mentioned Directives and
- any other chemical substances and preparations delivered with the toy.

This standard applies to *chemistry sets* and *supplementary sets*. It also covers toys for experiments within the fields of mineralogy, biology, physics, microscopy and environmental science whenever they contain one or more chemical substances and/or preparations.

It also specifies requirements for marking, contents list, instructions for use and for equipment intended for carrying out the experiments.

Other chemical toys are specified in EN 71-5.

NOTE The terms "substance" and "preparation" as used in directives 67/548/EEC [1] and 1999/45/EC [2] are also used in the "REACH Regulation" Regulation (EC) No 1907/2006 [4]. This regulation requires that account be taken of the emerging international standards in the regulation of chemicals such as the Globally Harmonised System (GHS) of classification and labelling of chemicals. The EU has now proposed a timetable for the introduction of GHS and it is expected that the two above mentioned directives will be repealed on 1 June 2015.

In the GHS regulation the term 'mixture' rather than 'preparation' is used. Preparations and mixtures should be considered synonymous; both are mixtures or solutions of substances that do not react with each other.

2 Normative references

The following referenced documents are indispensable for the application of this document. 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 ISO 868, *Plastics and ebonite – Determination of indentation hardness by means of a durometer (Shore hardness) (ISO 868:2003)*

EN ISO 8317, *Child-resistant packaging – Requirements and testing procedures for reclosable packages (ISO 8317:2003)*

ISO 7619, *Rubber, vulcanized or thermoplastic – Determination of indentation hardness*

3 Terms and definitions

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

Bestelformulier

Stuur naar:

NEN Standards Products & Services
t.a.v. afdeling Klantenservice
Antwoordnummer 10214
2600 WB Delft



NEN Standards Products & Services

Postbus 5059
2600 GB Delft

Vlinderweg 6
2623 AX Delft

T (015) 2 690 390
F (015) 2 690 271

www.nen.nl/normshop

Ja, ik bestel

__ ex. NEN-EN 71-4:2009 en Veiligheid van speelgoed - Deel 4:
Scheikundedozen

€ 50.00

**Wilt u deze norm in PDF-formaat? Deze bestelt u eenvoudig via
www.nen.nl/normshop**

Gratis e-mailnieuwsbrieven

Wilt u op de hoogte blijven van de laatste ontwikkelingen op het gebied van normen, normalisatie en regelgeving? Neem dan een gratis abonnement op een van onze e-mailnieuwsbrieven. www.nen.nl/nieuwsbrieven

Gegevens

Bedrijf / Instelling

T.a.v. O M O V

E-mail

Klantnummer NEN

Uw ordernummer BTW nummer

Postbus / Adres

Postcode Plaats

Telefoon Fax

Factuuradres (indien dit afwijkt van bovenstaand adres)

Postbus / Adres

Postcode Plaats

Datum Handtekening

Retourneren

Fax: 015 2 690 271

E-mail: klantenservice@nen.nl

Post: NEN Standards Products & Services,

t.a.v. afdeling Klantenservice
Antwoordnummer 10214,
2600 WB Delft

(geen postzegel nodig).

Voorwaarden

- De prijzen zijn geldig tot 31 december 2018, tenzij anders aangegeven.
- Alle prijzen zijn excl. btw, verzend- en handelingskosten en onder voorbehoud bij o.m. ISO- en IEC-normen.
- Bestelt u via de normshop een pdf, dan betaalt u geen handeling en verzendkosten.
- Meer informatie: telefoon 015 2 690 391, dagelijks van 8.30 tot 17.00 uur.
- Wijzigingen en typfouten in teksten en prijsinformatie voorbehouden.
- U kunt onze algemene voorwaarden terugvinden op: www.nen.nl/leveringsvoorwaarden.