



SLOVENSKI STANDARD
SIST EN 71-4:1995/A1:2000
01-september-2000

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Safety of toys - Part 4: Experimental sets for chemistry and related activities -
Amendment A1

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

iTeh STANDARD PREVIEW

Sécurité des jouets - Partie 4: Coffrets d'expériences chimiques et d'activités connexes
(standard.iTeh.com)

Ta slovenski standard je istoveten z: EN 71-4:1990/A1:1998
SIST EN 71-4:1995/A1:2000
<https://standards.iteh.ai/catalog/standards/sist/91645767-07d8-48c1-ab25-461bf246323/sist-en-71-4-1995-a1-2000>

ICS:

97.200.50 Q!æ^ Toys

SIST EN 71-4:1995/A1:2000 **en**

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ICS 97.200.50

Descriptors: toys, games, chemical products, dangerous materials, approved doses, safety requirements, specifications, marking, instructions, graphic symbols

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 amendment A1 modifies the European Standard EN 71-4:1990; it was approved by CEN on 20 December 1997.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant 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 amendment 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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

Foreword

This Amendment EN 71-4:1990/A1:1998 to EN 71-4:1998 has been prepared by Technical Committee CEN/TC 52 "Safety of toys", the secretariat of which is held by DS.

This Amendment to the European Standard EN 71-4:1990 has been prepared under a mandate given to CEN by the European Commission, and supports essential requirements of EU Directive(s).

NOTE: Different legal requirements may exist in non-EU countries.

This Amendment to the European Standard EN 71-4:1990 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 1998, and conflicting national standards shall be withdrawn at the latest by October 1998.

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

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6 Equipment

6.1 General requirements

Add at the end of this clause:

"All experiments described shall be evaluated by the manufacturer. In particular, substances shall not be produced in amounts that are injurious to health.

NOTE: Any known hazards arising from the use of the toy especially during the experiments should be described in detail (e.g. handling of chemicals, handling of glassware, retarded boiling point, back-flow of barrier water into overheated glassware, evolution of gases and handling of burners and other heating sources)."

6.2 Containers

Change the title of this clause into: "6.2 Containers and glassware".

Replace the text of this clause by:

6.2.1 Test tubes

6.2.1.1 Sets, in which test tubes are heated

In sets, where the instructions for use include chemical experiments in which test tubes are heated, all test tubes shall be made of borosilicate glass in order to be heat resistant.

Glass test tubes intended to be heated shall have dimensions greater than 110 mm in length and 15 mm in internal diameter.

Glass test tubes not intended to be heated, e.g. not for chemical experiments, shall have dimensions not greater than 90 mm in length and 12 mm in internal diameter.

6.2.1.2 Sets, in which test tubes are not heated

In sets, where the instructions for use do not include chemical experiments in which test tubes are heated and the glass tubes are not made of borosilicate glass, all test tubes shall be labelled in accordance with 7.2.

6.2.2 Other glassware

In sets, where the instructions for use include experiments in which glassware is heated, all glassware intended to be heated shall be made of borosilicate glass in order to be heat resistant.

The above requirement does not apply to glass pipes intended to be heated for the purpose of bending.

Other glassware which is not intended to be heated but which by its appearance or shape could be construed as being suitable for heating shall be labelled in accordance with 7.2.

6.2.3 Reagent containers

Containers for reagents shall differ in size and shape from laboratory glassware to avoid them being mistaken as glassware for use in experiments.

All containers shall be shock-resistant. They shall withstand the drop test specified in EN 71-1.

6.2.4 Closures

Closures shall be designed in such a way as to prevent ready accessibility to the contents by young children. The closure shall be readily resealable.

NOTE: The opening of the stopper should require, for example, two different movements or one movement and the use of a tool.

6.2.5 Empty containers

Empty containers intended for storage of reagents shall have a maximum volume of 100 ml and shall comply with table 2:

Table 2: Empty containers for reagents

Reagent	Maximum volume	Danger symbol	CAS number	EINECS number
Hydrochloric acid 2 mol/l	100 ml	Xi	7647-01-0	2315957
Hydrogen peroxide 3 % V/V	100 ml	-	7722-84-1	2317650
Sodium hydroxide solution 1 mol/l	100 ml	Xi	1310-73-2	2151855

Introduce a new clause:

6.3 Equipment for the transfer of liquid

"Transfer of liquid shall not be by mouth actuated pipettes. Where the transfer of liquid is required, a mechanical means which does not allow any aspiration by the mouth shall be provided (e.g. dropper with a permanently fitted teat)."

Change the present numbering 6.3 "Test tube stand and test tube holder" into 6.4 and 6.4 "Eye protection" into 6.5.

Due to the fact that EN 71-1:1988 has been revised, the new subclause 6.5 shall read:

"6.5 Eye Protection

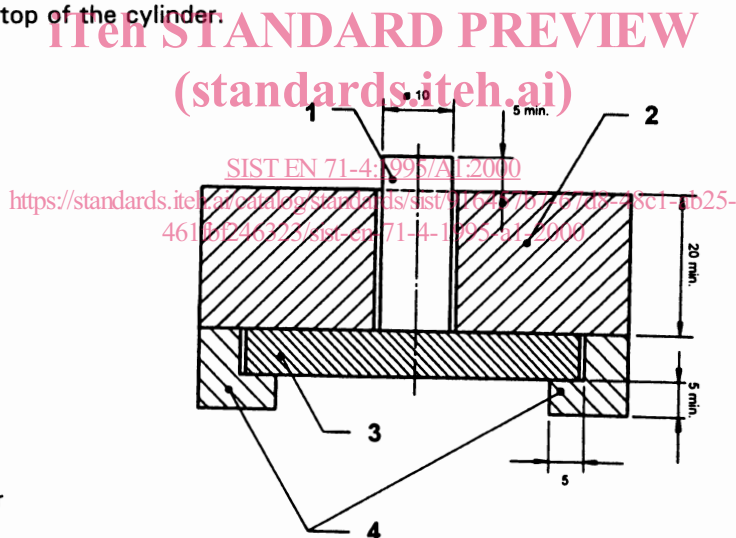
The eye protection shall be of such nature or design that the eyes are protected to a maximum extent.

NOTE: The requirement of EN 71-1 for imitations of protective masks and helmets does not apply to eye protection of experimental sets.

Transparent materials of eye protection shall not crack when tested in accordance with the following test method.

Separate the transparent material from the eye protection. Place the material in the apparatus as shown in figure 2, so that it is supported all along its periphery. The support shall be made of rigid material adapted to the sample.

Carry out the test at a temperature of $(20 \pm 5) ^\circ\text{C}$. Drop, in free fall, a mass of 1 kg through a distance of 100 mm onto the top of the cylinder.



All dimensions in mm

- 1 Copper cylinder
- 2 Guide
- 3 Sample
- 4 Support

Figure 2: Apparatus for test on eye protection

If the experimental set does not contain eye protection for the supervising adult the outer packaging shall be marked in accordance with 7.3.2."

7 Marking

7.1 General requirements

Add in this clause the following sentences:

"Letters of a minimum height of 7 mm shall be used for the terms 'WARNING' and 'CAUTION'.

Letters of a minimum height of 3 mm shall be used for the 'WARNING' phrases. The 'WARNING' phrases shall be clearly legible."

7.3.2 The outer packaging shall ...

Change in this clause the warning into: "WARNING! Only for use by children over 10 years old. To be used solely under the strict supervision of adults that have studied the precautions given in the experimental set."

Delete clause 7.3.4.

9.1 General instructions

In this clause delete NOTE 1 and NOTE 2.

9.3 Safety rules

In this clause add after "Do clean all equipment after use." the following rule:

"Do make sure that all containers are fully closed and properly stored after use."

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