

DIN EN 71-4:2021-03 (E)

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

Contents		Page
	European foreword	4
	Introduction	6
1	Scope	7
2	Normative references	7
3	Terms and definitions	8
4	Chemical substances in experimental sets	9
4.1	Chemistry sets	9
4.1.1	Inclusion in the chemistry set	9
4.1.2	Inclusion for experiments (as mentioned in the instructions but not supplied in the chemistry set)	10
4.1.3	Requirements for packaging in containers	10
4.2	Crystal growing sets	14
4.3	Carbon dioxide generating experimental sets	17
5	Equipment	18
5.1	General requirements	18
5.2	Containers and glassware	19
5.2.1	Test tubes	19
5.2.2	Other glassware	19
5.2.3	Containers for reagents, substances and mixtures	19
5.2.4	Packaging and closures	20
5.2.5	Empty containers	21
5.2.6	Test method for borosilicate glass	21
5.3	Equipment for the transfer of liquid	22
5.4	Test tube stand and test tube holder	22
5.5	Eye protection	23
6	Marking	23
6.1	General requirements	23
6.2	Marking of individual containers, packaging and glassware	23
6.3	Marking of the primary packaging	24
6.3.1	The primary packaging shall bear the following warnings:	24
6.3.2	Supplementary sets shall additionally be marked with the following warning on the primary packaging	24
7	list with warnings and first aid information	24
8	Instructions for use	25
8.1	General instructions	25
8.2	Advice for supervising adults	26
8.3	Safety rules	26
8.3.1	Chemistry sets	26
8.3.2	Crystal growing sets	27
8.3.3	Carbon dioxide generating experimental sets	28
	Annex A(informative) Rationale	29

A.1	Classification of substances and mixtures.....	29
A.2	Crystal growing sets.....	29
A.3	Carbon dioxide generating experimental sets.....	29
A.4	Combined sets.....	30
A.5	Use of substances/mixtures not provided with a chemistry set	30
A.6	Markings, labelling and warnings	30
Annex B (informative)	Environmental considerations.....	31
Annex C (informative)	Significant technical changes between this document and the previous version	32
Annex ZA (informative)	Relationship between this European Standard and the Essential Requirements of Directive 2009/48/EC aimed to be covered	33
Bibliography		34