

INTERPRETATION OF TEST RESULTS AND THE COMPARISON WITH LIMITS OF STANDARDS



ITC activities abroad are co-financed by the European Regional Development Fund and the Ministry of Industry and Trade

EN 71-9 SAFETY OF TOYS – ORGANIC CHEMICAL SUBSTANCES – REQUIREMENT

- The standard considers the following ways of exposure of child's organism to organic chemical substances:
 - Insertion in mouths
 - swallowing
 - contact with skin
 - contact with eyes
 - inhalation
- Potential presence of particular group of substances in a toy depends on the material used (plastics, wood, paper, textile, leather, liquid, surface treatments), potential ways of exposure depend on toy type.

Applicability of limits in accordance with EN 71 – 9

	SPECIFIED TOY / TOY PART	Toy material	Limit table*)										
			2 A	2 B	2 C	2 D	2 E	2 F	2 Ga	2 Gb	2 H	2 I	
			Burni ng inhibi tor	Colou rants	Prima ry arom atic amine s	mono mers	Solve nts - migra tion	Solve nts - inha lation	Wood treat ment agent s	Wood treat ment agent s	Cons ervati on agent s	Softe ners	
1	Toys intended for insertion in mouths by children up to 3 years of age	POLYMER a)				X	X						X
2	Toys or accessible parts of toys weighing 150 g or less, intended for children up to 3 years of age for manual playing	POLYMER a)				X	X						X
3		WOOD		X	X				X	X			
4		PAPER		X	X								
5	Toys or accessible parts of toys intended for children up to 3 years of age	TEXTILE	X	X	X								
6		LEATHER		X	X						X		
7	Mouthpieces of toys initiated by mouths	POLYMER a)				X	X						X
8		WOOD		X	X				X	X			
9		PAPER		X	X								
10	Inflatable toys with surface larger than 0,5 m ² at full inflation	POLYMER a)							X				
11	Toys worn over mouths or nose	POLYMER a)				X		X					
12		TEXTILE		X	X			X					
13		PAPER		X	X								

Note a) : Except for polymer coatings less than 500 µm thick

Applicability of limits in accordance with EN 71 – 9

	SPECIFIED TOY / TOY PART	Toy material	Limit table*)									
			2 A	2 B	2 C	2 D	2 E	2 F	2 Ga	2 Gb	2 H	2 I
			Burni ng inhibi tor	Colou rants	Prima ry arom atic amine s	mono mers	Solve nts - miga ration	Solve nts - inha lation	Wood treat ment agent s	Wood treat ment agent s	Cons ervati on agent s	Softe ners
14	Toys in to which children can crawl	POLYMER a)						X				
15		TEXTILE						X				
16	Parts of stationery sold as toys or used in toys	POLYMER a)				X	X					X
17	Toys or accessible parts of toys for use inside interiors	WOOD							X	X		
18	Toys or accessible parts of toys for outside use	WOOD							X			
19	Toys or accessible parts of toys resembling foodstuffs	POLYMER a)				X	X					X
20	Stiff toy materials to leave a trace	ALL		X	X							
21	Coloured accessible liquids in toys	LIQUID		X	X						X	
22	Non-coloured accessible liquids in toys	LIQUID									X	
23	Modelling paste, plasticine and similar toys except for chemical toys amended by the EN 71-5 standard	ALL		X	X						X	
24	Mixtures for balloon creation	ALL		X	X			X				
25	Adhesive tattoo imitations	ALL		X	X		X				X	
26	Jewellery imitations	POLYMER a				X	X					X

Note a) : Except for polymer coatings less than 500 µm thick

Application of the EN 71-9 on Polymer Toys

- The term polymer used in EN 71-9 standard specifies synthetic polymer materials including plastics, rubber (thermoplastic or vulcanised), silicones and thermosetting resins. The standard does not apply to polymer surface treatment (coating, spreads, spray paints and layers) less than 0,5 mm thick.
- Requirements imposed by this standard relate to most toys or any parts thereof made of polymers, yet not all such toys. The precondition for applicability of this standard is to place the particular toys within any of the following categories:

Application of the EN 71-9 on Polymer Toys

- Toys for children up to 3 years of age for insertion in mouths
- Toys and parts of toys for children up to 3 years weighing up to 150 g, for manual play
- Mouthpieces of toys intended for insertion in mouths without any age restriction
- Inflatable toys exceeding 0,5 m²
- Toys worn over mouth or nose
- Toys allowing children to crawl inside
- Stationery as toys
- Toys resembling foodstuffs
- Jewellery imitations

Application of the EN 71-9 on Polymer Toys

- The scope of assessment for particular categories has been defined as follows:
 - For toys made of polymers falling into the categories 1, 2, 3, 7, 8, 9 the assessment concerns monomers, softeners and solvents entering the organism upon migration
 - For toys in category 5 the assessment concerns monomers and solvents entering the organism upon inhalation
 - Toys in categories 4 and 6 are assessed with respect to solvents only

Application of the EN 71-9 on Wooden Toys

This part relates to 4 categories of toys:

- Toys and any part thereof for children up to 3 years of age, with unit weight up to 150g deigned for manual playing
- Mouthpieces of toys intended for insertion in mouths without any age restriction
- Toys intended for outdoor use
- Toys intended for indoor use
 - Wooden toys falling into categories 1 and 2 are assessed with respect to colourants, primary aromatic amines and wood treatment agents for outdoor and indoor premises
 - The category 3 is associated with assessment of wood treatment agents for outdoor premises
 - The category 4 is associated with assessment of wood treatment agents for indoor premises

Application of the EN 71-9 on Toys Made of Textile Materials

This applies to three categories of toys:

- **Toys and parts of toys for children up to 3 years**
- **Toys worn over mouth or nose**
- **Toys allowing children to crawl inside**
 - Textile toys in the category 1 are assessed with respect to colourants primary aromatic amines d burning inhibitors
 - Textile toys in the category 2 are assessed with respect to colourants , primary aromatic amines and solvents upon inhalation.
 - Textile toys in the category 3 are assessed with respect solvents upon inhalation only.

Application of the EN 71-9 on Toys Made of Paper

This applies to the following categories of
paper toys:

- Toys and parts of toys for children up to 3 years weighing up to 150 g, for manual play
- Mouthpieces of toys intended for insertion in mouths without any age restriction
- Toys worn over mouth or nose
 - All three categories are assessed with respect to colourants and primary aromatic amines

Application of the EN 71-9 on Toys Made of Leather

- This applies to a single category of toys made of leather
 - Toys and parts of toys for children up to 3 years
 - The assessment concerns colourants, primary aromatic amines and conservation agents (other than wood treatment agents)

Materials for Toys Leaving a Trace

- For toys intended for drawing, painting and similar creative games is assessed regardless of the specific material used for toy production (inorganic chalk, wax crayons, drawing aids with textile tips and other) organic substances related to colour carrier components.
- All the toys in this category are assessed with respect to colourants and primary aromatic amines.

Institute fo testing and certification, inc

Address:

T. Bati 299

764 21 Zlin

Czech Republic

Mail: itc@itczlin.cz

<http://www.itczlin.cz/>

