European Chemical Safety for Toys

No matter where you source in the world, UL's accredited laboratories can assist with the new chemical requirements for toys in Europe.

EN 71-3:2013

The new harmonised standard EN 71-3:2013 under Directive 2009/48/EC, came into force July 20 2013, and specifies requirements and test methods for the migration of 19 elements from toy materials and from parts of toys. The standard also contains different requirements for the migration of certain elements from the following categories of toy materials:

- Category I: Dry, brittle, powder like or pliable materials;
- Category II: Liquid or sticky materials;
- Category III: Scraped-off materials.

	EN 71-3: 2013			EN 71-3:1994/A1:2000/ AC:2000/AC:2002	
Element	Category I (mg/kg)	Category II (mg/kg)	Category III (mg/kg)	Any toy material except for modelling clay (mg/kg)	Modelling clay (mg/kg)
Aluminum	5.625	1.406	70.000	-	-
Antimony	45	11,3	560	60	60
Arsenic	3,8	0,9	47	25	25
Barium*	1.500*	375*	18.750*	1.000	250
Boron	1.200	300	15.000	-	-
Cadmium	1,3	0,3	17	75	50
Chromium	-	-	-	60	60
Chromium (III)	37,5	9,4	460	-	-
Chromium (VI)	0,02	0,005	0,2	-	-
Cobalt	10,5	2,6	130	-	-
Copper	622,5	156	7.700	-	-
Lead	13,5	3,4	160	90	90
Manganese	1.200	300	15.000	-	-
Mercury	7,5	1,9	94	60	25
Nickel	75	18,8	930	-	-
Selenium	37,5	9,4	460	500	500
Strontium	4.500	1.125	56.000	-	-
Tin	15.000	3.750	180.000	-	-
Organic Tin	0,9	0,2	12	-	-
Zinc	3.750	938	46.000	-	-

* Limits have been changed in EN71-3 in anticipation of an amendment to the Toy Safety Directive 2009/48/EC.

EN 71-12:2013

The new harmonised standard EN 71-12:2013 specifies the requirements and test methods for N-nitrosamines and N-nitrosatable substances for:

- toys and parts of toys made from elastomers and intended for use by children under 36 months;
- toys and parts of toys made from elastomers and intended to be placed in the mouth;
- finger paints for children under 36 months.

The standard has been prepared on the basis of the new requirements contained in Directive 2009/48/EC, Annex II, Part III entry 8, which states that nitrosamines and nitrosable substances shall be prohibited for use in toys intended for use by children under 36 months or in other toys intended to be placed in the mouth if the migration of the substances is equal to or higher than 0,05 mg/kg for nitrosamines and 1 mg/kg for nitrosable substances.

Germany

In 2011, Germany requested permission from the European Commission (EC) to retain the existing provisions provided under German law for five of the elements listed in EU Toy Safety Directive 2009/48/EC: lead, arsenic, mercury, barium and antimony.

With Decision 2012/160/EU the European Commission approved – in accordance with the transitional rules of the new directive on toys – the continued application of the German limit values for lead and barium in toys until July 21, 2013, but rejected the application in relation to antimony, arsenic, and mercury.

Germany has brought an action before the General Court of the European Union for the annulment of that decision. Moreover, Germany applied for an interlocutory order so as to be able to continue to apply the existing limit values in Germany until a final decision has been taken by the General Court. By decision of May 15, 2013, the president of the General Court ordered the Commission to approve the continued application of the limit values notified by Germany for antimony, arsenic, mercury, barium, and lead until the General Court's final decision in the case.

German requirements are laid down in the Second Equipment and Product Safety Act Ordinance (Verordnung über die Sicherheit von Spielzeug - 2. GPSGV). Toys, produced using the following substances, may be made available on the market only if the following maximum levels are biologically available every day due to the use of toys:

- 0.7 micrograms of lead,
- 0.2 micrograms antimony,
- 0.1 micrograms of arsenic,
- 25.0 micrograms barium,
- 0.5 micrograms of mercury.

Since in Germany there are ongoing legislative working, more details could be available in the next future.

Additionally, in Germany the limit values for toys made of natural or synthetic rubber designed for children under 36 months and intended or likely to be placed in the mouth are 0,01 mg/kg for N-nitrosamines and 0,1 mg/kg for N-nitrosatable substances.

How UL Can Help

UL consumer products group's accredited laboratories can assist with verifying compliance with requirements under the EU Toy Safety Directive 2009/48/EC including requirements for the new migration limits.

For more information about UL consumer product services and how they can benefit your company email ToyTeam@ul.com or visit ul.com/toys