# New initiatives in the ISO standardization

## Standards in the ISO 8124 series are developed by the Technical Committee ISO TC 181 on the Safety of Toys, which held its October meeting in Berlin

In many parts of the world, toys are required to meet the ISO 8124 series of standards. China, Japan, Brazil, Australia, Malaysia, Indonesia, Kenya, Korea are just a few examples of countries that use these standards as a basis for their national standards.

Closer cooperation between ISO and CEN

The Technical Committee TC 181, which is responsible for the 8124 Standards, held its 19th annual meeting in October 2016. All the continents except Antarctica were represented among the approximately 50 delegates coming from 20 countries.

For the first time since 2007, the meeting took place in Europe - this time in Berlin. This allowed a joint meeting of the TC 181 and the working group responsible for the chemical-related standards in the European standardization, CEN.

Both committees presented their ongoing and planned work and discussed potential future partnerships. Even though the limit requirements for chemicals in toys may vary due to the different legislation within the countries and regions, both CEN and ISO share a willingness to consider using the same test methods.

Ongoing and planned work within TC 181

*ISO 8124-1 Mechanical and physical* properties
Four draft amendments to the final vote were sent. After the voting, they will be published as a supplement to ISO 8124-1: 2014. The proposals were related to the following areas*:*

- Toys that emit sound
- Layout of warnings and readability
- Cords in toys
- Jaw entrapment in handles and steering wheels
- Clarification of when paper and cardboard could be deemed to constitute a small parts hazard for children under 3

In the beginning of 2017, a ISO TC 181 technical report will be published. It will contain a detailed comparison of ISO 8124-1:2014, EN 71-1:2014 and ASTM F 963-11 (concretely, the parts relating to the mechanical and physical hazards). The goal is to update this comparison report regularly to reflect the changes made in the three standards.

This comparison has also led to a number of proposed changes to ISO 8124-1, which would lead to fewer differences between the three standards. In this regard, work on proposals to implement the most important of these amendments has already been initiated.

At the meeting, a proposal to consider flying toys such as ’toy drones’ was also approved.

*ISO 8124-3, migration of certain elements*
The European Standardization is carrying out a large piece of work to refine the methods in EN 71-3 for determination of migration of elements from toy materials. The ISO committee is following this work, but has also decided to develop and implement a technique called ICP-

OES in the corresponding standard 8124-3 (ICP-OES = Inductively Coupled Plasma-Optical Emission Spectrometry).

*ISO 8124-6 Analysis of phthalates in toy materials*
During the first half of 2017, an enquiry for an updated version of this standard will be launched. This version includes a method for the analysis of DIBP (in addition to the six phthalates currently covered by the standard) and a new method: 'Ultrasonic extraction'

*New standards based on EN 71-4 and EN 71-5*
Given that both "Chemical experimental sets" (covered by EN 71-4 in Europe) and the "Chemical toys" (covered by EN 71-5 in Europe) are lacking in the ISO 8124 series, it was decided that ISO standards will be elaborated for these areas. The standards will be fully based on the EN 71 standards.

*New standard for microbiological characteristics?*
A small working group was appointed at the Berlin meeting with the task of examining practices / standards from different parts of the world as well as to determine whether it may be appropriate to develop an international standard for assessing the risk of bacteria / mold growth in liquid-based toys. The working group will present its findings at the next meeting of the TC 181 committee (October 2017).

The current ISO 8124 series

The ISO 8124 series of standards consists of the following components:

ISO 8124-1 Mechanical and physical properties
ISO 8124-2 Flammability
ISO 8124-3 Migration of certain elements
ISO 8124-4 Swings, slides and similar activity toys for indoor and outdoor family domestic use
ISO 8124-5 Determination of total concentration of certain elements
ISO 8124-6 Determination of certain phthalate esters in toys and children's products
ISO 8124-7 Finger paints - Requirements and test methods
ISO 8124-8 Age determination guidelines

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