



Changes to EN 71-1 for sound producing toys

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An amendment to the toy safety standard EN 71-1 on mechanical and physical properties will be published soon. This amendment covers the requirements for 'toys intended to emit sound'. Below follows a summary of main changes introduced, which should assist manufacturers in taking the necessary steps to ensure compliance. While the changes are significant, the old requirements may be applied for up to one year after the publication of the amendment.

Consolidated EN 71-1

In connection with the coming into force of the new Toy Safety Directive on 20 July 2011, an updated version of the EN 71-1 standard on mechanical and physical properties was published to support the Directive's new safety requirements. In that version, however, no changes were introduced for sound producing toys, as the European Commission had mandated the European Committee for Standardization (CEN) to elaborate updated requirements and test methods for these toys by 2013. These new requirements have now been agreed by CEN in the form of a new amendment. For practical reasons, the new requirements will be published in a consolidated version of EN 71-1.

The new, consolidated standard is expected to be published by CEN at the end of September. Shortly afterwards, it will be available for purchase from European countries' National Standards Bodies.

All sound producing toys that are manufactured in or imported into the EU after September 2014 must comply with the new requirements.

What are the new requirements?

All sound producing toys are covered

The new standard lays down limit values for all toys intended to emit sound. Limit values are given both for short, sudden sound (impulse sound) and for sound with longer duration (continuous sound).

This is a major difference compared to the present requirements. The current standard does not include any limit values for child actuated toys where the child's activity determines the level of the sound (a flute, trumpet, drum, xylophone, etc.). Also, the present standard includes limit values for continuous noise only for rattles, squeeze toys, close-to-the-ear toys and toys with headphones/earphones but not for other sound producing toys.

New terms and definitions

In order for limit values to be introduced for 11 specific toy categories, several new terms and definitions have been introduced and some of the existing ones have been modified. Examples of new terms are 'wind toys' (a flute, trumpet, etc.), 'voice toys' (a telephone, walkie talkie, etc.) and 'percussion toys' (a drum, xylophone etc.).

Exposure categories

An important change is the introduction of ‘exposure categories’, which determine the strictness of limit values for continuous sound in toys, based on the share of the playing time during which a toy emits sound. This is based on the fact that many sound producing toys do not emit sound during the whole time that the child plays with them. For example, a child may only fire a percussion cap gun occasionally while playing, or an electronic toy may only emit a short sound each time a button is pressed.

Sound producing toys are placed in one of three exposure categories based on specified criteria. In principle, category 1 covers toys that normally emit sound during more than one third of the playing time; category 2 covers toys that emit sound during less than one third but more than one tenth of the playing time; and toys that emit sound during less than one tenth of the playing time belong in category 3.

New limit values are introduced

The new limit values are based on the limits that apply in workplaces. These limit values were adapted for toys based on certain assumptions about the total time per day that a child plays with sound producing toys, and how far from the ear a child normally holds a sound producing toy during play.

As one single sound event could potentially damage the hearing if it is too loud, the limit values for impulse noise are based on the conservative assumption that all toys can potentially be very close to the ear on occasion. As a result, the limit values for impulse sound are not affected by the exposure category in which the toy is placed, but are the same for all sound producing toys. However, there are two exemptions, where less strict limit values will apply:

- ‘percussion toys’ (e.g. a drum): the child is not considered to be able to hold this type of toy very close to the ear and beat it with a stick at the same time
- ‘percussion cap toys’ (e.g. a percussion cap gun): the duration of the emitted noise is so short that the ear is considered to be able to cope with a slightly higher sound level (compared to other sound producing toys) without the hearing being damaged

As it is important to ensure that the ear is not subjected to high sounds for a long period of time (day after day, month after month), the limit values for continuous noise are based on the normal distance from the ear at which a toy is used.

In comparison to the present standard, several requirements will be more stringent when the new standard comes into force. Also, as mentioned above, limit values will apply to all sound producing toys.

As each limit value is linked to a certain type of sound producing toy and to a certain exposure category, it is not possible to summarise which new limit values will apply to each toy. Companies will need to study the requirement tables, which will be published in the new standard.

Adapted test methods and updated rationale

For each of the 11 categories of sound producing toys, the new standard includes new or revised methods for measuring impulse and continuous noise.



Toy Industries of Europe

Annex A of the standard now contains an updated section with a detailed explanation of the assumptions made when defining limit values as well as other background information, in particular about the measurement distances and toy categories.

The information in this article is very much simplified. For complete information about the new limit values for sound producing toys, readers are advised to refer to the new standard EN 71-1:2011+A2:2013. Readers are reminded that the text of the original directive or standard is the only authentic legal reference and that the information in this document does not constitute legal advice. Toy Industries of Europe (TIE) does not accept any liability with regard to the contents of this document.

About TIE

Toy Industries of Europe (TIE) is the trade association for the European toy industry. The toy industry is highly international and is one of the most dynamic business sectors in Europe. Over 99% of the sector is composed of small and medium sized enterprises (SMEs), which have less than 50 employees. Members of TIE include corporate companies as well as national associations from Bulgaria, France, Germany, Italy, the Netherlands, Spain, Sweden, the UK and the Nordic region. TIE membership is open to both corporate companies with a presence in Europe and national associations from European Union Member States (including candidate countries).

Do you know how safe toys are? Watch this short [video](#) to find out!