Toy Safety

Standards to help you comply with safety requirements

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Safety of toys

Today's toy industry is highly regulated and subject to a complex array of rules but help is at hand in the form of BSI toy safety standards. Developed by BSI, the world's first and oldest National standards body, toy safety standards set out detailed specifications that are designed to ensure toys provide a high level of safety for children. These standards are intended for use by manufacturers, importers, retailers, enforcement officers and anyone that has an interest in ensuring that toys are safe and compliant with legal obligations.

Failure to control toy safety can not only place children at risk of injury but also lead to significant costs to economic operators if production schedules are delayed, shipments missed or product withdrawals occur.

Conformity with BSI toy safety standards provides a presumption of conformity with the technical provisions of the UK law i.e. The Toy (Safety) Regulations 2011. It is therefore considered "best practice" to ensure the requirements of the BSI toy safety standards are integrated into an effective quality assurance process which ensures that all toys in a mass production process achieve the required high level of safety.

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Contents

> " Everyone should use standards... BSI toy safety standards set out the technical requirements that ensure toys provide a high level of safety and conform with UK and EU legal requirements. "

Toy safety isn't child's play

Globally, toys are big business. In 2015 the global toy market was worth an impressive $87.4 billion, and the market continues to grow: it's projected to exceed $135 billion by 2020, driven by innovation, technology development and launch of smart toys and educative games.[1]

About a quarter of this market is in North America – the total revenue of the US toys and games market in 2014 was around $23 billion.[2] The next biggest markets are Japan ($5.82 billion) and China ($4.95 billion), with the UK coming in fourth at $4.93 billion in 2011, ahead of France ($4.58 billion) and Germany ($3.85 billion).

Most interesting of all is the fact that in the world league table of who spends the most on toys, the UK clearly comes out top. According to 2013 research from the NPD Group, the French were spending around $358 per child on toys, Americans $371, while the average UK spend was a significantly larger $438 per child (that's around £350).[3] On average, in the UK 38 toys per child were purchased in 2015, with 11 of these being Christmas gifts.[4]

It indicates that the UK market is a vibrant one for toy manufacturers and retailers. However, for that buoyancy to remain it'll be important for buyers to continue to have confidence in the safety of the toys they buy – and European data suggests that toys aren't as safe as they could be.

For instance, according to RAPEX[5], which monitors dangerous product alerts across Europe, toys are the most common product category for notifications. In 2015, more than a quarter of the alerts (27 per cent) were for toys.[6] Of course toys might be expected to top the list: they are made for children and have to comply with high safety requirements.

That said, of 555 toy alerts in 2015, only 18 came from the UK (the known brands). The 2016 figure was 10 and there have been two alerts so far in 2017. It suggests that toy safety in the UK is relatively good. But at the same time it underlines the need to avoid complacency and maintain the integrity of the UK's toy safety regime which is underpinned both by law and by standards.

The UK regulatory framework

All toys supplied in the UK, regardless of where in the world they're manufactured, must meet a list of essential safety requirements which are set out in the Toys (Safety) Regulations 2011. This is in effect the UK version of the European Toy Safety Directive.

Under this law, in summary, manufacturers are obliged to make sure toys comply with essential safety requirements, conduct a safety assessment, make a declaration of conformity and affix the CE marking. Importers and distributors are required to check that manufacturers have fulfilled these obligations.

It's here that standards play a key role because toys which conform to the relevant standard are presumed to conform to the essential safety requirements of the regulation.
The principal standard in this regard is BS EN 71. It tells you how toys should meet the requirements of the directive, stating how they should be manufactured and tested and the safety warnings they must carry.

It covers a range of safety aspects from new methods of analysing certain chemicals to new specifications for domestic trampolines, cosmetic kits, and board games involving smell and taste. BS EN 71 comes in 14 parts and in 2016, BS EN 71 series standards were bought over 12,000 times. This underlines how central this standard is to helping the UK toy industry comply with the law and make sure that UK toys are safe.

[1] http://www.strategyr.com/MarketResearch/Toys_and_Games_Market_Trends.asp
[2] https://www.statista.com/statistics/194424/amount-spent-on-toys-per-child-by-country-since-2009/
[3] https://www.statista.com/statistics/194424/amount-spent-on-toys-per-child-by-country-since-2009/
[4] http://www.btha.co.uk/wp-content/uploads/2016/01/Market-performance-press-release-.pdf
[5] RAPEX is the European Rapid Alert System that enables the quick exchange of information between 31 European countries and the European Commission about dangerous non-food products posing a risk to health and safety of consumers.
[6] http://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/content/pages/rapex/reports/docs/rapid_alert_system_factsheet_en.pdf
[7] https://www.statista.com/statistics/194399/toy-market-size-by-country-since-2009/

British Standards for toy safety

BSI publishes standards, guidelines and specifications to help companies meet toy safety requirements. These publications cover a wide range of toy products and safety topics including flammability, electrical, chemicals, mechanical/physical issues and activity toys.

Before toys reach the shelves, manufacturers must ensure they are safe for children to use. Testing against the safety standards is a common means of checking for conformity with legal requirements. Safety testing a teddy bear, for example, might include tugging its eyes to make sure a young child couldn't easily pull them out and swallow them.

Some of the toy safety standards are written to address the particular hazards of a toy type. For example, chemistry sets have their own specific standard and trampolines, swings and slides have their own standards.

Some of the hazards that are dealt with include:

- Ensuring toys that are worn e.g. fancy dress costumes, headwear, either burn slowly or do not ignite

- Restricting ingredients in finger paints to those known to be safe and requiring the paints to be bitter tasting to discourage placing in the mouth and swallowing

- Making sure toys cannot stab, trap, mangle or choke

- Ensuring hazardous elements such as lead, cadmium and mercury are not present or not able to pose a risk to children should the toy be sucked, chewed or ingested

Toys that meet the UK Toy (Safety) Regulations 2011 and the BSI toy safety standards benefit from unhindered access to the European single market, subject to certain language requirements being met. This single market access arises because the UK toy safety law is based upon the EU toy safety directive 2009/48/EC. Since 1988 the EU toy safety directive has set the legal benchmark of safety across the EU but its most recent revision in 2009 resulted a significant strengthening of the rules, especially those relating to chemical requirements. The good news is that all of the EN71 standards have been updated and revised in order to ensure they address the latest technical requirements of the toy safety directive 2009/48/EU.

Here are a few of the more notable changes that are now in force:

- Several new heavy elements were added to the restricted list and many of the existing limits were lowered

- Hundreds of substances which are known or suspected carcinogens, mutagens or toxic to reproduction (so called CMRs), were, for the first time, subject to bans or stringent restrictions

- 55 fragrances known to trigger allergies were banned

The toy safety directive defines a toy as any product 'designed or intended, whether or not exclusively, for use in play by children under 14 years of age'. However, some toys are specifically excluded from the Directive, including:

- Toys with steam or combustion engines

- Playground equipment for public use

In addition, the following products are not considered to be in scope of the toy safety standards:

- Kits for assembly of scale models

- Sports equipment and swimming aids

- Computer games

- Babies' soothers

Key toy safety standards: BS EN 71 Series

The British Standard BS EN 71, which comes in many parts, sets out the technical requirements that economic operators must meet and how to test toys against those requirements. These standards also specify particular warnings or other safety information that must be placed on toys, their packaging or instructions. If toys don't comply, they can be removed from sale and manufacturers can face prosecution, fines and possible imprisonment.

BS EN 71-1
Safety of toys. Part 1: Mechanical and physical properties

BS EN 71-2 (new revision)
Safety of toys. Flammability

The UK committee responsible for standards relating to safety of toys – made up of industry representatives, consumers, UK government, test laboratories and regulatory bodies – has been assessing how the standard EN 71-2:2011+A1, *Safety of Toys - Part 2: Flammability*, could be improved.

On behalf of the UK committee, BSI proposed to the European standards body, CEN, that this standard needs to be reviewed and updated.

Subsequently the European committee – which is made up of representatives from all CEN members states, including the UK - has met and reviewed the UK's proposal for a revision to EN 71-2 and agreed that this work needs to be undertaken.

A CEN working group, with a UK Convenor and Secretary, has been convened to look at:

- The flammability of certain designs of 'disguise costumes', in particular those made with small pieces of textile fabric that are currently exempt from the requirements of the standard and are therefore not assessed in order to determine compliance of the costume as a whole
- The interpretation document TR 15371-1 (Safety of toys. Interpretations. Replies to requests for interpretation of EN 71-1, EN 71-2, EN 71-8 and EN 71-14), with a view to incorporating clear interpretations into EN 71-2
- Annex A, with a view to its improvement to contain information and guidance about the safe design of disguise costumes in order to reduce the overall rate of the spread of flame

BS EN 71-3
Safety of toys. Specification for migration of certain elements

BS EN 71-4
Safety of toys. Experimental sets for chemistry and related activities

BS EN 71-5
Safety of toys. Chemical toys (sets) other than experimental sets

BS EN 71-6
Safety of toys. Graphical symbols for age warning labeling. The standard has been withdrawn

BS EN 71-7
Safety of toys. Finger paints. Requirements and test methods

BS EN 71-8
Safety of toys. Activity toys for domestic use

BS EN 71-9
Safety of toys. Organic chemical compounds. Requirements

BS EN 71-10
Safety of toys. Organic chemical compounds. Sample preparation and extraction

BS EN 71-11
Safety of toys. Organic chemical compounds. Methods of analysis

BS EN 71-12
Safety of toys. N-Nitrosamines and N-Nitrosatable substances

BS EN 71-13
Safety of toys. Olfactory board games, cosmetic kits and gustative games

BS EN 71-14
Safety of toys. Trampolines for domestic use

Additional standards and symbols

PD CEN/TR 15071	Safety of toys. National translations of warnings and instructions for use in the EN 71 series
PD CEN/TR 15371-1	Safety of toys. Interpretations. Replies to requests for interpretation of EN 71-1, EN 71-2, EN 71-8 and EN 71-14
PD CEN/TR 15371-2	Safety of toys. Interpretations. Replies to requests for interpretation of the chemical standards in the EN 71-Series
PD ISO/TR 8124-8	Safety of toys. Age determination guidelines
PD CEN/TR 16918	Safety of toys. Children's mouthing behaviour in contact with toys
EN 62115	Electric toys. Safety

Symbols and warnings

All toys on sale in the UK must carry the CE mark. This shows that the manufacturer has declared that the toy meets the requirements of the European Toy Safety Directive and any other applicable EU directive e.g the Electromagnetic Compatibility Directive

Also look for the Lion Mark. This tells consumers that the manufacturer is a member of the British Toy and Hobby Association (BTHA). BTHA members annually sign a code of practice committing to conform to all appropriate legislation and committing to exercise all due diligence in regard to the safety of their toys."

You might see various other labels on certain toys, as required by the Directive. For example:

Toys that might be dangerous for children under three years old must state: 'Warning. Not suitable for children under 36 months', together with an indication of the risks, such as choking on small parts. They may also include the optional symbol pictured

How to get involved:

If you are interested in participating in any of the Toys Committees please contact **Sarah.Horsfield@bsigroup.com**

The easiest ways to work with standards

BSI Shop
Single copies of standards can be purchased via BSI's e-commerce platform: shop.bsigroup.com

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The Multi-User Network License (MUNL) will allow you to purchase multiple copies of the same document and save on cost

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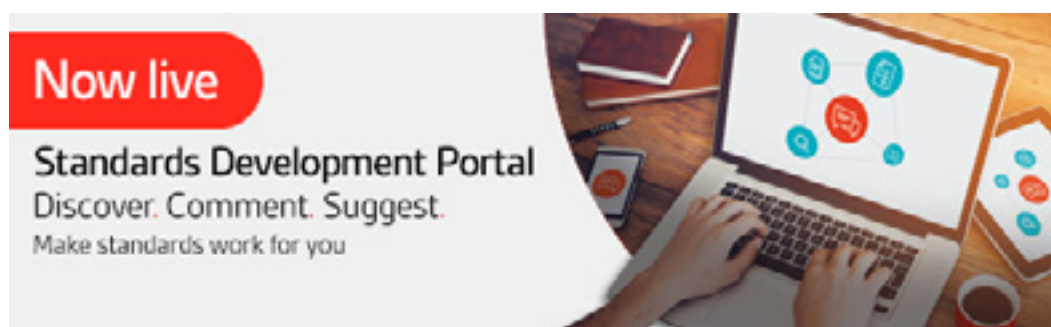
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Get involved in standards development

We develop standards in committees that are made up of manufacturers, users, research organizations, government departments and consumers who all work together to address industry challenges. Over 9,000 UK experts volunteer their knowledge and time to participate in BSI committees and contribute to the drafting of standards.

All new or revised standards are made available for public comment, via BSI's Draft Review System, allowing input from any member of the general public who has an interest in the content of the standard.

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