

# PLAY IT SAFE WITH PRODUCT DESIGN ANALYSIS

Ensure a product's safety not only protects customers, but also your reputation and profit margins. With a myriad of standards and legislation relating to toys and juvenile products across the globe, it is worth considering a broader approach to product safety - risk assessments.



## RISK ASSESSMENT BENEFITS

Many product returns, recalls and other problems that occur once a product has been released onto the market can be prevented through careful risk assessment and product design analysis throughout a product's life cycle. Before spending time and money developing and manufacturing a toy, a risk assessment should be carried out to identify any concerns at every stage from concept to production.

In the EU all toys must undergo a hazard and risk assessment. This is though not applicable in all markets around the world. Product design analysis and risk assessment enables you to develop toys that will meet the most stringent regulations and have the widest market access. Employing design analysis as part of your risk assessment and management process enables you to ensure a toy is safe from the earliest stages.

## COMPLEX REQUIREMENTS IN THE EU

Safety regulations in the EU oblige manufacturers to conduct a product hazard and risk assessment and document results before a toy can be placed on the market. This must include legal standards and regulations, but responsible manufacturers and retailers should include voluntary standards, client specific requirements as well as essential safety requirements. One should look beyond minimum standards as a product that meets regulatory standards can still pose a danger to customers.

Consider contracting specialist support for product design analysis services including:

- Feasibility analysis
- Product safety review
- Risk assessment
- Product line review

- Product specific research
- Benchmark/performance testing

Following product design analysis your toys will be better by design, meet consumer expectations and be subject to fewer recalls. This will improve brand reputation and give your company the edge in a competitive marketplace.

## A RANGE OF SOLUTIONS AVAILABLE

SGS offers clients three Product Risk Assessment Services at toy testing facilities around the world:

- Quality and Safety Management
- Product Design Analysis
- Manufacturing Control

Stay ahead of the competition and manage safety from concept to final product.

## CASE STUDY

SERVICE: [Product risk assessment](#)

PRODUCT DESCRIPTION: [Plastic bath toy in the shape of a boat with a vertical mast.](#)

Manufactured in China and destined for sale in the EU this toy is aimed at children three years or older. SGS was contracted to conduct a product risk assessment before it was placed on the market. Our client was keen to ensure that the product met legal regulations and to identify and rectify any safety issues.

In accordance with the target market the toy was assessed against the current legislation for entry to the EU market, including Toy Safety Directive 2009/48/EC, EN 71 standards (Safety of Toys), REACH and the Packaging and Packaging Waste Directive 94/62/EC. In addition to meeting the regulations, our product reviewer also recommended additional standards that would be useful.

The vertical mast of the boat was identified as a Major concern. A review of injury data for children's bath toys identified a number of injuries from children falling in the bath onto a projection on a bath toy.

As this boat has a rigid vertical mast it was thought that this could increase the severity of injury if a child fell onto this toy. It was recommended that either the mast was removed, or made from a soft material to reduce the risk or severity of this hazard.

In addition our experts also review and advise on requirements in terms of labelling for the toy and its packaging as well as requirements related to warnings and instructions for use.

Our product design evaluation looks at the product, its intended audience, and then reviews its potential for damage and injury during both usual and unusual usage. The sooner potential flaws are identified the quicker and more cost effectively corrective actions can be implemented. Consumers, especially children, often find innovative and challenging ways to engage with toys.

A risk assessment on a toy investigates recall and injury data, identifies

foreseeable use and analyses potential hazards. These findings are broken down into four categories:

- Compliance issues
- Critical concerns
- Major concerns
- Minor concerns

All hazards are presented with corrective actions and advice, both with regard to the design, accessories and the manufacturing process.

To find out more about SGS risk assessment services, contact your local SGS representative or email us at [productintegrity.cts@sgs.com](mailto:productintegrity.cts@sgs.com).

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