Protecting Children and Your Brand Reputation

UL TOY SAFETY AND QUALITY ASSURANCE SERVICES

Empowering Trust[™]





About UL Consumer & Retail Services

UL is dedicated to helping manufacturers, suppliers and retailers delight children with safe, quality toys. Our offerings provide clarity to the complex processes of creating, producing, and bringing toys to the global market.

Our knowledge, worldwide network of accredited laboratories, and dedicated team provide the support and expertise necessary to successfully meet regulatory demands and protect brand reputation. UL's comprehensive suite of services include safety testing to global standards, quality assurance inspections, responsible sourcing and solutions that deliver critical business intelligence.

We help our customers to mitigate the risks associated with global sourcing to protect your brand reputation and build consumer loyalty. Working together, we can reduce business complexity, mitigate risk, bring increased trust to the entire value chain and better protect our children.

We're with you every step of the way, from design to shelf to empower trust in a complex world.



Selection of active memberships and affiliations

- US Toy Industry Association (TA)
- UK Baby Products Association (BPA)
- British Toy and Hobby Association (BTHA)
- Italian Toy Association (ASSOGIOCATTOLI)
- China Toy Association (CTA)
- Toy Association of India (TAI)
- European Committee for Standardization (CEN)
- International Organization for Standardization (ISO)
- Hong Kong Toy Council (HKTC)

- ASTM International (ASTM)
- International Federation of Inspection Agencies (IFIA)
- International Council of Toy Industries (ICTI)
- Human Factors & Ergonomics Society (HFES)
- International Consumer Product Health & Safety Organization (ICPHSO)
- Notified Body Toys Coordination EU
- The All India Toy Manufacturers' Association (TAITMA)



Advisory services

Today's global economy organizations gain a true competitive edge by focusing

on product development, managing safety, compliance and regulatory risks, and accessing new markets. UL's advisory and training services address these numerous needs, from developing a product to efficiently getting it onto the shelves in all target markets. We focus on sharing the knowledge our customers need to advance their businesses in an increasingly competitive landscape.

UL advisory services include:

Human factors analysis

Takes into consideration foreseeable play

patterns and interactions of children at specific ages based upon their physical, cognitive and developmental abilities to evaluate products for age appropriateness, intended and unintended users, foreseeable use or misuse, fit, comfort and size, and potential safety hazards.



UL advisory services include:

Home > Advisory services > Human factors analysis

Age determination

Determines the most age appropriate

grading of toys on the basis of developmental factors, such as cognitive and motor abilities of children, as well as play behavior and interests.



UL advisory services include:

Home > Advisory services > Age determination

Label review

Reviews label information to international standards, helping ensure the details provided clearly define the safety warnings and product use guidelines and meet regulatory requirements.

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UL advisory services include:

Home > Advisory services > Label review

Risk and hazard assessment

Analyses product features to identify potential hazards and safety issues based on foreseeable use, and injury and incident data of similar product. Assessment includes potential manufacturing issues that could affect product safety, and provides quantitative analysis based on severity of potential injury and the likelihood of occurrence.



UL advisory services include:

Regulatory evaluation

Constructs a robust global compliance plan tailored to a specific product and feature set, which allows companies to proceed with confidence in continual compliance.



UL advisory services include:

Home > Advisory services > Regulatory evaluation

Recall analysis for children's products

Performs a detailed review of recent recalls to illuminate common issues with specific product categories. Using this data can drive supply chain and design decisions and quantify risk.



UL advisory services include:

Home > Advisory services > Recall analysis for children's projects

Best practices

Reviews processes throughout the supply chain to develop a robust quality assurance program that includes best practices at each step of a product life cycle, from product concept through distribution.



UL advisory services include:

Home > Advisory services > Best practices





Bringing products to the global market successfully requires building safety and quality checks into every step of the production process, across the entire supply chain. UL toy testing services perform vital assessment against global standards at labs all over the world, fully supporting the toy manufacturing industry's drive to bring safer products to market.

UL testing services include:

Mechanical and physical evaluations

A series of mechanical safety tests intended to simulate the normal use of toys, as well as the reasonably foreseeable damage or abuse to which the toys may be subjected. The tests are for use in exposing potential hazards that would result from the normal use or the reasonably foreseeable damage or abuse of such toys.



UL testing services include:

Quality and performance testing

Confirms product quality, performance claims and client expectations with testing that simulates normal product usage. UL offerings include accelerated stress testing, benchmarking, failure analysis, and life cycle testing of materials and finished products.



UL testing services include:

Home > Testing > Quality and performance testing

Chemical analyses

Gains greater control over chemical sourcing to meet regulatory requirements. UL's offerings range from raw material testing and finished product compliance, to developing a Restricted Substances List (RSL) and strengthening supply chain management. Assessments include US State regulations and Europe's REACh directive, as well as global toy safety regulations.



UL testing services include:

Flammability

Tests against global flammability standards to confirm compliance and safety and avoid highly flammable products and materials.

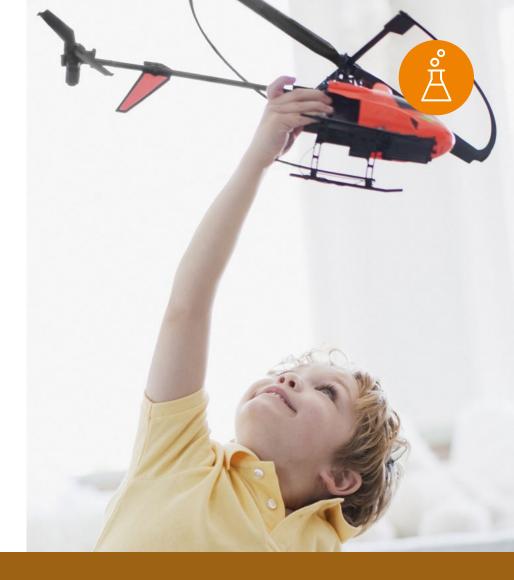


UL testing services include:

Home > Testing > Flammability

Electrical and electronic component testing

Confirmation of electrical safety and performance, including EMC and EFT, as well as battery-operated toy requirements.



UL testing services include:

Home > Testing > Electrical and electronic component testing

Toxicological risk assessments/LHAMA

Evaluates the chemical ingredients and formulation of a product and its intended use, and measures for both acute and chronic toxicity in relation to potential human exposure, as well as the potential for misuse. For art materials, compliance to the Labeling of Hazardous Art Materials Act (LHAMA) is assessed.



UL testing services include:

Microbiological testing

Evaluates the presence of bacteria, yeasts, mould, fungi, which could adversely affect the product safety and the consumer's health.

Microbiological risks are typical of toys containing aqueous media and natural materials such as nuts or pips.



UL testing services include:



Testing for connected toys

Demand for intelligent and interactive toys has increased significantly for the use of connected toys, both electronic and wireless, for learning purposes and gaming. However, the risks related to these products are not fully known, and combined with their usage, that concern is growing. **UL takes care in identifying and understanding the measures needed to protect children when using these devices within a regulatory landscape that hasn't been fully defined.**

UL testing services include:

Home > Testing > Testing for connected toys (1 of 3)

Home > Testing > Testing for connected toys (2 of 3)

EMC Testing – Assessing the ability of electronic devices to operate as intended when in proximity to other electronic devices or in the presence of electromagnetic phenomena.

Radio Performance Testing – Testing the performance and functionality of a product which incorporates wireless technologies, such as Bluetooth[®] WiFi and Cellular – this is a regulatory requirement for most global markets.

Specific Absorption Rate (SAR) Testing – Measuring the electromagnetic energy absorbed by a body in proximity to wireless devices. SAR testing is intended to verify that a device doesn't exceed a country's established RF exposure limits.

Bluetooth SIG Qualification – Satisfying the requirements to use Bluetooth Technology, the IP and the associated logo.

Over-the-Air Testing (OTA) – Accurately predicting real-world wireless device Reliability, Interoperability and performance capabilities. OTA testing of products that incorporate wireless technology is required by many standards organization, carriers, vendors and regulatory bodies.

Cyber Security – Cyber-attacks are happening more frequently and affect consumers and businesses alike. Data breaches cost businesses millions of dollars and dilute consumer confidence. Security experts warn that the connected nature of Internet of Things (IoT) devices will give rise to more cyber-attacks. UL 2900 is the foundation of the UL Cybersecurity Assurance Program (CAP) for consumer technology products, in particular IoT and network devices.





UL uses recognized methods to test toys for compliance with brand

specifications, as well as regulations and standards required by global markets, including International, Europe, Canada, USA, Mercosur, Asia and many more.





Global market access

Understanding exactly how compliance requirements apply to your products on a global scale is a significant challenge. UL's decades of experience and worldwide presence bring much-needed clarity and reduce compliance complexity.

While competition increases dramatically when you broaden your business' reach, getting safer, quality-assured products to market fast becomes an essential. Working with UL helps you keep pace with evolving compliance requirements and get a real understanding of the rules and regulations of your target market.



CRS global map locations



Home > Global market access > CRS global map locations

Global regulatory testing

Located in various locations around the world, UL laboratories have knowledge and expertise to test to a variety of toy safety standards and regulations for market access.



Regulatory research and protocol development

UL's team of researchers can identify applicable regulatory requirements for the markets of distribution and create customized test protocols that incorporate these requirements as well as any customer specific requirements.



Compliance management system evaluations

Ease the process of operating on a global scale with the UL global auditing footprint. UL's auditors confirm value, governance and compliance to industry standards, regulatory requirements and organizational necessities.





UL SmartInsights[™]

UL SmartInsights[™] is an online subscription service created to solve your problems for finding current, accurate and complete Global Market Access regulatory requirements that apply to your products. It is a library of regulatory information, organized in a user-friendly interface to help you achieve global compliance. UL SmartInsights[™] will give consumer product manufacturers confidence in their compliance program and the information to easily expand to new regions.



Simplifying access to regulatory requirements

Critical decision making and effective day-to-day management of multi-stage product development life cycles requires immediate access to critical data and information. Additionally, the regulatory landscape of product requirements is ever-changing, with new or updated regulations released on a continual basis. Understanding and being alerted to these compliance requirements is critical for you to make strategic business decisions, such as entering new geographic markets or introducing a new line of products.

Information in the database is continually updated to provide you with timely and current requirements and access is customized based on the countries and product categories you need. Powerful searching mechanisms allow you to further analyze the requirements that exist in the system. In addition to providing the regulation, UL SmartInsights[™] provides analysis of the requirements in the regulations and will allow you to compare key compliance requirements by country to design products with global compliance in mind. You will also be able to download, print, and bookmark your favorite searches.



Quality assurance

Producing toys that will delight children requires excellence throughout the supply chain. **UL helps ensure that brand specifications, standards and best practices are fully understood and implemented by every link in your value chain.** Our global team brings local presence and increased expertise to your business.

UL quality assurance services include:

Product inspections



Top of Production Inspections (TOP) are performed on raw materials and first run product to assess compliance with regulatory requirements and brand specifications.

Initial Production Inspections (IPI) are performed on initial samples to assess compliance with regulatory requirements and brand specifications.

In-Process Quality Checks (DUPRO) are performed during production to evaluate product quality and consistency before the order is completed to identify and address any issues in the manufacturing process, in order not to jeopardize the shipping schedule.

UL quality assurance services include:

Final Random Inspections (FRI) serve as a final check on product quality, packaging, product labeling, and carton markings before the product is packed.



Pre-Shipment Inspections (PSI) serve as the last check prior to leaving the factory, and evaluated product quality, packaging, product labeling, and carton markings to ensure items are correctly packed and fit for their intended use.

Loading Inspections verify that the product, quantity, packing, and carton markings are accurate during the loading process at the factory, warehouse, or port. Also ensures no tampering of product before it is loaded for transportation.

Production Monitoring places an inspector on-site at the factory to monitor the manufacturing process and helps ensure materials, quality, and production schedules are met.



Home > Quality assurance > Product inspections (2 of 2)

Factory audits



Quality management systems – Uncover and resolve challenges in areas such as training, policies, quality assurance, and human resources management.

Production capability and capacity – Gain insight into the strengths and weaknesses of a facility to gauge whether a supplier can deliver consistent quality now and in the future. Audits can be customized to address areas of specific concern. Areas commonly audited include Facility, Safety & Maintenance, Incoming Material Inspection, Injection / Rotocast Molding / Die-cutting, Paint Decoration & Application, Cleanliness & Sanitation, Nonconforming Material Control, Quality Assurance Product Testing, In-line & Final Inspection, Sharp Tool Control, Packing Area, and Warehouse & Storage.

UL quality assurance services include:

Responsible sourcing



Extractives and raw materials – Develop policies, programs and risk mitigation strategies to create transparency and promote sustainable business practices.

Social compliance – Advance social responsibility and accountability with supply chains. UL offers facility audits and due diligence assessments, research and benchmarking, program development and consultation, code of conduct and audit tool services, and social compliance and human rights training. UL's proprietary social audit protocols and tools are based on industry best practices, per experience with implementing leading brand and initiative programs, and our more than 20 years of experience in executing workplace assessments.

UL quality assurance services include:



Security and brand protection – UL helps reduce the risks, costs and damages associated with doing business in today's global market. Our services include Customs-Trade Partnership Against Terrorism (C-TPAT) compliance assistance and safeguards your brands against counterfeiting and gray market diversions.

C-TPAT – Comply with supply chain security recommendations in accordance with the C-TPAT. UL provides monitoring consultation services to companies that need to comply with C-TPAT. We also offer a range of advisory services to help customer develop a C-TPAT supply chain management program including Five-Step Risk Assessments, supplier training and remediation, the creation of best practices manuals and starter kits.

Supply chain audits – Identify and address regulatory concerns, enhance supplier performance and ward off gray market diversion and counterfeiting.

Capacity building and continuous improvement – Enhance management systems, foster worker engagement, improve legal and code of conduct compliance, and realign processes with stakeholder expectations.



Environmental responsibility

Advance sustainable business practices through UL's environmental responsibility auditing and testing services. Particular areas of concern that UL's services address include:

UL Environmental assessments based on GSCP guidelines – As compliance with environmental and sustainability policies and regulations becomes more important to businesses, their stakeholders need to see transparent results of supply chain environmental performance. UL Responsible Sourcing's Environmental Responsibility Audits, based on Global Social Compliance Programme (GSCP) guidelines, provide overviews of your supply chain manufacturing sites' management systems and impacts of production, to allow you to build your environmental baseline information and capture supply chain progress.

UL quality assurance services include:



UL's Environmental Responsibility Audit assesses:

- Environmental management systems (EMS)
- Air, water, energy, and greenhouse gas (GHG) management
- Wastewater management
- Industrial and hazardous waste disposal
- Contaminated land/soil and groundwater pollution
- Land use and biodiversity
- Environmental emergency response

Chemical management services – Onsite wastewater management systems assessments, chemical inventory audits, and testing solutions based on Zero Discharge of Hazardous Chemicals (ZDHC) principles to help minimize the potential damage to surrounding ecosystems and communities from harmful chemical discharge.



Production quality audits

Production quality inspections on both products and manufacturing sites are initiated multiple times during production to verify production quality controls and product quality. Samples for testing are also randomly selected during these inspections. Once a year per facility in the supply chain, full audits are conducted to verify quality management systems at the site level. The quality system audit includes incoming material inspection, cleanliness and sanitation, quality assurance product testing, and warehouse and storage.

UL quality assurance services include:



Marks

The toy industry is highly regulated to protect the safety and health of young

consumers. Through testing, manufacturers must demonstrate a safety-first approach in their products in order to meet regulations and stand out from their competitors. Conformity Marks communicate your product's credentials clearly to the marketplace and enable consumers to make smarter, more informed choices about the toys they bring into the lives of children.

UL mark services include:



UL Toy Safety Certification Mark

Give consumers the confidence that they crave when purchasing toys for their little ones. UL Toy Safety Certification Mark demonstrates that a manufacturer is vitally concerned with quality and safety. Additionally, the UL Toy Safety Certification Mark provides added supply chain risk management through detailed factory quality systems audits, product inspections and testing at various points in the supply chain.

UL Toy Safety Certification Mark components include:

- Compliance testing to ASTM F963 or EN 71-1, EN 71-2, EN 71-3, EN 71-4, EN 71-5, EN 71-7, EN 71-8, EN 71-12, EN 71-13, EN 71-14 & EN 62115 throughout production
- Factory quality systems audit
- Quality inspections product and manufacturing
- Follow-up services inspection
- UL Toy Safety Certification Mark and program management

UL mark services include:







UL Verification Mark

Make your marketing promises credible with the UL Verification Mark. Our independent assessment process scrutinizes the validity of specific advertising or promotional statements, enabling you to separate verified fact from fiction in the marketplace and provide the confidence that drives consumer purchasing decisions.



UL mark services include:

Home > Marks > UL Verification Mark (1 of 2)



UL Verification Mark offers third-party assessment and verification of marketing claims to help companies differentiate themselves in today's competitive marketplace. A Verified Mark is issued to eligible products, processes, systems or facilities, which can be used on product, on packaging and in promotions. Every UL Verified Mark means that particular product, system or facility has met a specific, science-based protocol, giving manufacturers a clear competitive edge and buyers confidence.

Contact your UL representative for more information on the UL Verification Mark.



Data management: PATH[™] SmartSuite

UL's PATH[™] SmartSuite Solution is a web-based platform providing a single unified view of various tools and resources supporting Information Management, Business Intelligence, Corrective Action, Lifecycle Management and more. The system is designed as business-centric platform in helping our clients manage their testing, inspection, audit and certification programs while providing the best-in-class user experience.

UL data management services include:



Tools & resources

Information Management includes knowledge based solutions:

SmartDoc: an enterprise client document repository for testing, inspection, and audit reports and related documents.

SmartInsights[™] Global Market Access Platform: an online subscription service offering quick and easy access to current, accurate, and complete regulatory requirements for Global Market Access.

Easy access to **Protocols and Product Guidelines** with UL standards or client specific guidelines.

UL data management services include:



Business Intelligence presents in-depth reporting and analytics, providing true transparency throughout a client's supply chain and allowing trends to be spotted before they become issues.

Corrective Action and Lifecycle Management provides transactional solutions, offering the flexibility for clients to collaborate with their supply chain to rectify non-conformities or failures. This application helps to achieve a robust supply chain program using tools like workflows, tasks, and status updates with your testing, inspection and audit programs.





Key offerings

Key offerings of UL's PATH[™] SmartSuite include:

- Single Sign-on Reducing or eliminating the need for multiple logins
- A unified system to provide the knowledge base and transactional based solutions we provide today and on our roadmap in one single place
- Best-in-class search and navigation
- Configuration and personalization by client by providing custom dashboards and relevant data that only pertains to the client and their business

UL data management services include:



- Responsive design user interface for desktop, tablet and mobile
- Collaboration dashboards, give feedback, calendar, chat
- Social media friendly
- Visual analytics graphs, charts, benchmarking
- Favorites, recently viewed, save searches
- Scalable and secure
- Login authentication and role based permissions
- 24x7 web based access
- User administration



Closing

Thank you for taking the time to read our eBook. We hope you found the content both useful and informative. UL will be here to help protect your brand's reputation and to empower trust in a complex world.

If you are looking for more information or have any questions about UL's toy services, please visit us at <u>crs.UL.com</u> or <u>contact</u> us today.

Stay up-to-date with the latest information in the toy industry by subscribe to the UL Pulse. UL Pulse is a monthly newsletter that includes regulatory news, featured articles, upcoming events, and more. <u>Click here</u> to subscribe.

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