



Toys & Childcare Product Testing Services

Assembling safety and quality in all
toys and childcare products

Your Challenges

In today's stringent regulatory environment, toys and childcare products are under constant scrutiny by government agencies and consumer associations. Regulations and standards have been implemented in different countries and are constantly changing, putting pressure on product manufacturers to adhere to current market requirements.

As part of the commitment to product quality, safety and responsibility, it is essential that all suppliers and buyers of toys and childcare products ensure that products have been tested in accordance with applicable standards and safety regulations before they are placed on the market.

Therefore, it is important for brands, retailers and manufacturers of toys and childcare products to work with a trusted quality assurance partner to ensure product safety and quality for global market access and achieve commercial success.

Our Solutions

From supplier assessment and R&D support to regulatory guidance, all the way through to compliance, customized testing protocols and quality control, failure analysis and market surveillance, we cover every stage of your toy product's quality journey to help safeguard your brand's reputation, meet the legislative obligations, and better position your products to exceed customer expectations.

Chemical Testing

Chemical hazards in toys and childcare products are among the major concerns of regulators and market surveillance authorities due to the danger these represent to the children and the environment. Our laboratories can handle testing requirements for international regulations, such as EU Toy Safety Directive 2009/48/EC, ASTM F963 for the safety of toys, CPSIA, ISO 8124-3 for migration of certain elements and China GB.

Mechanical/Physical Testing

Our mechanical and physical tests of toys and childcare products, and their parts, help buyers and suppliers to determine if the products are compliant with the different regulations and standards worldwide, such as EU Toy Safety Directive 2009/48/EC, ASTM F963, 16 CFR1500.50–1500.53, ISO 8124-1 for mechanical and physical properties of toys.

Electrical & Electronics Safety Testing

Working with our teams at Eurofins | MTS Electrical & Electronics, we can help you assess your electrical and electronic toys for standards such as IEC 62115, ANSI/UL 696 and Battery Directive 2006/66/EC.

Safety Assessment

A safety assessment aims to identify any potential hazards that a toy may present, and to assess the potential exposure to those hazards. We can evaluate toy products against physical, mechanical, fire, chemical, electrical, hygiene and radioactivity requirements to ensure conformity assessment procedure is duly carried out.

Flammability

Toys or childcare items and their materials need to be evaluated to reduce any inherent flammability hazard. Costumes and disguise accessories (e.g. masks and wigs) are of particular high concern as fire hazards and special attention is required. For instance, when products are being sold in the EU, such items are regulated under Toy Safety Directive (TSD) 2009/48/EC, and CE Marking is required.

Compliance Services

With our expertise and know-how of product safety, we offer a range of services to assist you in fulfilling regulatory compliance, from protocol drafting, Technical Compliance File generation, to marking/labelling review.

Certification Services

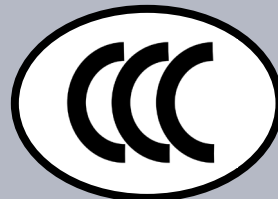
Certain categories of products require certification in order to be sold in particular markets. We can deliver varied certification services, including:



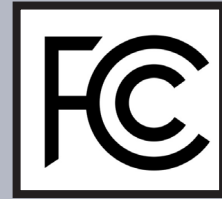
CE Marking for toys and other products with Notified Bodies in EU



UKCA Marking with UK Approved Body for Great Britain market



China Compulsory Certification (CCC) for plastic and metal toys



FCC Mark for electronic products manufactured or sold in the US market

Inspection Services

We offer an array of toy inspection services while providing you flexible customization to meet your specific requirements and your quality control policy.

- Raw materials inspection
- During production inspection/Inline inspection
- Final random inspection/Pre-shipment inspection
- Loading supervision
- Warehouse inspections
- Other related services such as sample picking

Factory Audit Services

Companies wishing to be transparent and take social compliance, environmental impact, corporate governance and other parameters in their supply chains into account can leverage our factory audit services to gain public trust. This includes:

- Social compliance audits
- Environmental/chemical management audits
- Technical audits
- Security audits

Product Scope

Our comprehensive and international service covers most types of toy & childcare products, including:

Arts & Crafts	Plush toys
Electronic toys	Wooden toys
Ride-on toys	Educational toys
Games & Puzzles	Action Figures
Infant Walkers	Highchairs
Safety Gates	Toddler Beds
Bassinets and Cradles	And more!

Why choose Eurofins | MTS

- Global network of 30+ testing laboratories spanning across Asia, Europe and U.S. with strong alignment and management.
- International laboratory accreditations and local expertise to support your market access needs.
- Robust technical expertise on varied product categories and regulations/requirements offering tailored testing packages to your specific needs.
- CE Mark Notified Body and UKCA Approval Body for European market.

About Us

Modern Testing Services ("MTS") was founded in 2006 as a quality assurance company specializing in testing, inspection and certification of consumer products. MTS operates without the pressure of short-term financial results and believes in long-term relationships built on trust, commitment and transparency. Today, MTS is a trusted partner to many leading brands, retailers, and manufacturers around the world, providing accurate, efficient and customized solutions at every point in the supply chain to ensure product quality, brand protection and customer satisfaction.

MTS joined Eurofins in November 2021. The synergy between MTS and Eurofins enables an expanded global service network in more than 35 locations in over 20 countries, as well as more robust technical expertise from over 2,000 dedicated and knowledgeable employees with additional product category coverage and more comprehensive services.

Your Trusted Quality Assurance Partner

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General Testing Requirements by Toys & Childcare Product Types

Table 1 shown below states the general testing requirements for toys and childcare products for the U.S. market. Please note that testing requirements for toys & childcare products vary depending on where a product will be sold, the type of product, and applicable standards and regulations. Please contact our experts for details on testing requirements for your specific needs.

Table 1

COMMONLY REQUIRED TEST TYPES	TEST EXAMPLES	EXAMPLE OF PRODUCT TYPES						
		GENERAL TOYS	ARTS & CRAFTS	ELECTRICAL TOYS	RIDE-ON TOYS	JUVENILE FURNITURE	KIDS TABLEWARE	KIDS COSTUMES
PHYSICAL / MECHANICAL TESTING	Sharp edges/points, acoustics, strength, durability, CF	✓	✓	✓	✓	✓	✓	✓
FLAMMABILITY TESTING	Rate of flame spread, BRC	✓	✓	✓	✓	✓		✓
CHEMICAL TESTING	Heavy metals, REACH, Prop 65, CHCC	✓	✓	✓	✓	✓	✓	✓
ELECTRICAL SAFETY	Electrical safety, EMC, LED, laser emissions			✓				
TOXICOLOGICAL ASSESSMENTS	Cosmetics, Directives, TRA, LHAMA		✓					
MARKETING CLAIMS	Functional claims, labeling	✓	✓	✓	✓	✓	✓	✓
MICROBIOLOGICAL TESTING	Microbiological examination, anti-microbial effectiveness	Test materials: Liquids, Pastes, Putties, Gels, Powders, Items of Avian Feather Origin						



Our Toys & Childcare Testing Capabilities by Locations

Eurofins | MTS has an extensive global network of laboratories to conduct wide array of testing services to the toys & childcare industry. Our clients can identify their preferred testing location and benefit from the ability to manage the project in real-time, while ensuring that costs and turn-around time are kept to a minimum.

Europe & Americas

TESTING CAPABILITIES	Spain	UK		Germany		Italy		Turkey	France	USA	
	Alicante	Northampton	Leeds	Wilsum	Augsburg	Como	Torino	Istanbul	Aix en Provence	Washington	Boston
PHYSICAL			✓					✓	✓	✓	✓
CHEMICAL	✓	✓	✓		✓	✓		✓			✓
FLAMMABILITY	✓		✓					✓	✓	✓	✓
CERTIFICATIONS & APPROVALS									✓		

Asia

TESTING CAPABILITIES								India			
	Shanghai	Hangzhou	Qingdao	Shenzhen	Dongguan	Hong Kong	Taipei	Gurgaon	Tirupur	Bangalore	Noida
PHYSICAL	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
CHEMICAL	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
FLAMMABILITY	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
CERTIFICATIONS & APPROVALS						✓					

TESTING CAPABILITIES	Bangladesh	Sri Lanka	Pakistan	Vietnam	Indonesia	Cambodia	Korea
	Dhaka	Colombo City	Lahore	Ho Chi Minh	Jakarta	Phnom Penh	Seoul
PHYSICAL				✓			✓
CHEMICAL	✓		✓	✓	✓	✓	✓
FLAMMABILITY				✓	✓		✓
CERTIFICATIONS & APPROVALS							



Global Toys Requirements Summary

Main Standards

TEST ITEMS	UNITED STATES (U.S)	EUROPEAN UNION	CANADA	AUSTRALIA
PHYSICAL / MECHANICAL	ASTM F963-17 & 16 CFR 1500.50-53	EN 71-1:2014 + A1: 2018	SOR/2011-17	AS/NZS 8124.1:2019
FLAMMABILITY	ASTM F963-17 Textile: ASTM F963-17 Annex A6/ 16 CFR 1610 Solid: ASTM F963-17 Annex A5/ 16 CFR 1500.44	EN 71-2:2011+A1:2014/ EN 71-2: 2020	SOR/2011-17	AS/NZS 8124.2:2016
CLEANLINESS OF STUFFING MATERIAL	ASTM F963-17 section 4.3.7 State Law: Pennsylvania Laws, Massachusetts Laws, Ohio Laws	EN 71-1:2014 + A1: 2018		AS/NZS 8124.1:2019
BATTERY-OPERATED TOY SAFETY	ASTM F963-17 section 4.25	EN 62115:2005+A12:2015 /EN 62115: 2020+ A11: 2020		AS/NZS 62115:2018

Main Standards (Chemical)

TEST ITEMS	UNITED STATES (U.S)	EUROPEAN UNION	CANADA	AUSTRALIA
Phthalate	CPSIA: DEHP, DBP, BBP, DINP, DIDP and DnOP ≤ 1000mg/kg individually	REACH Annex XVII Entry 51 for all plasticized material sum: DEHP, DBP, DIBP and BBP ≤ 1000 mg/kg ; Entry 52 for material can be placed in the mouth sum: DINP, DIDP and DNOP ≤ 1000 mg/kg	SOR/2016-188 1. Vinyl material: each of DEHP, DBP and BBP ≤ 1000mg/kg; 2. Vinyl material can be placed in the mouth and under 4 years: each of DINP, DIDP and DNOP≤1000mg/kg	Consumer Protection Notice No. 6 of 2010: DEHP≤1000mg/kg toys, childcare articles, eating vessels and utensils for children under 3 years old
Total Lead Content	CPSIA: 1. Surface coating ≤ 90mg/kg; 2. Accessible substrate ≤ 100mg/kg		SOR/2010-273 Total lead test for consumer products contact with Mouth	
Total Cadmium		REACH Annex XVII Entry 23≤ 100mg/kg		
PAH		REACH Annex XVII Entry 50≤ 0.5 mg/kg (each)		
Bisphenol A	Banned for toys under 3 in the following states: California, Connecticut, Delaware, Illinois, Maine, Maryland, Minnesota, Nevada, New York, Vermont, Washington, Wisconsin	Strictly limited for toys under 36 months of age or in other toys intended to be placed in the mouth: Migration Limits 0.04mg/L		
Flame Retardants	TCEP, TDCP, TCPP and TDCPP banned in the following states: California, Hawaii, Illinois, Maine, Maryland, Michigan, Minnesota, New York, Oregon, Rhode Island, Vermont, Washington, Washington D.C.	TCEP TCPP TDCP≤ 5mg/kg (individually)		

Physical Test Parameters

TEST ITEMS		USA	EUROPEAN UNION	CANADA	AUSTRALIA
	AGE (MONTHS)	ASTM F963-17 16 CFR 1500.50~53	EN 71-1:2014 + A1: 2018	SOR/2011-17 Health Canada Product Safety Reference Manual	AS/NZS 8124.1:2019
Impact Test	0 to 36		1kg mass free drop from 100mm height on sample surface		
Drop Test	0 to 18	4.5 ft (1.37m), 10 drops	850mm (2.8 ft), 5 drops	4.5 ft (1.37m), 4 drops	1.38m (4.53 ft), 10 drops
	>18 to 36	3 ft (0.91m), 4 drops		4.5 ft (1.37m), 4 drops	0.93m (3.1 ft), 4 drops
	>36 to 96	3 ft (0.91m), 4 drops		3 ft (0.91m), 4 drops	0.93m (3.1 ft), 4 drops
Torque Test*	0 to 18	2 in- lbs (0.23N·m)	0.34N·m (3 in-lbs)	0.94 N.m (8.32 in-lbs) for rattles only	0.45N·m (4 in-lbs)
	>18 to 36	3 in-lbs (0.34N·m)			
	>36 to 96	4 in-lbs (0.45N·m)			
Tip Over test (For large and bulky toys)	0 to 36	3 times	3 times		3 times
	>36 to 96				
Tension Test	0 to 18	10lbs (44.5N)	General: Dimension >6mm 90N (20.2lbs) Dimension < 6mm 50N (11.2lbs) Paperboard: 25 N (5.6lbs) Seam of soft toy: 70N (15.7lbs) Protective component: 60N (13.5lbs)	General: 44.5N (10lbs) Soft doll Eye/nose: 9.07 kg (20 lbs) static load 5 minutes Rattle: 50N (11 lbs)	70N (15.7lbs)
	>18 to 36	15lbs (66.8N)			
	>36 to 96				
Compression Test	0 to 18	20lbs (89N)	110N (25 lbs)		114 ± 2,0
	>18 to 36	25lbs (111.3N)			
	>36 to 96	30lbs (133.5N)			
Flexure Test	0 to 18	30 cycles of 120° arc at a rate of 1 cycle/2s; 60s rest period every 10 cycles. Bending force 10lbs (44.5N)	30 cycles of 120° arc at a rate of 1 cycle/2s; 60s rest period every 10 cycles. Bending force 70N (15.7lbs)		30 cycles of 120° arc at a rate of 1 cycle/2s; 60s rest period every 10 cycles. Bending force 70N (15.7lbs)
	>18 to 96	30 cycles of 120° arc at a rate of 1 cycle/2s; 60s rest period every 10 cycles. Bending force 15lbs (66.8N)			
	>96 to 168				

* Sample will hold on position of 180° rotation even torque force do not reach to the limit.
The value given in parentheses are for information only.

Soluble Element Migration Requirements

TEST ITEMS	USA		EUROPEAN UNION / UK			CANADA	AUSTRALIA		
	ASTM F963-17 (mg/kg)		EN 71-3:2019 + A1:2021* (mg/kg)			SOR/2011-17 (mg/kg)	AS/NZ ISO 8124.3:2012 (mg/kg)		
	General	Modeling Clay	Category 1	Category 2	Category 3		General	Modeling Clay	Finger Paint
Antimony	60		45	11.3	560	1,000	60		10
Arsenic	25		3.8	0.9	47	1,000	25		10
Barium	1,000	250	1,500	375	18,750	1,000	1,000	250	350
Cadmium	75	50	1.3	0.3	17	1,000	1,000	250	350
Selenium	500		37.5	9.4	460	1,000	500		50
Chromium (III)	60	25	37.5	9.4	460		60	25	25
Chromium (IV)			0.02	0.005	0.053				
Lead	90	90	2.0	0.5	23	90	90	90	25
Mercury	60	25	7.5	1.9	94		60	25	10
Aluminum				5,625	1,406	70,000			
Boron				1,200	300	15,000			
Cobalt				10.5	2.6	130			
Copper				622.5	156	7,700			
Manganese				1,200	300	15,000			
Nickel				75	18.8	930			
Strontium				4,500	1,125	56,000			
Tin				15,000	3,750	180,000			
Organic Tin				0.9	0.2	12			
Zinc				3,750	938	46,000			

General Markings and Warning Labels on Toy Products

US Market



US Market:

The indication to the left shall be printed on the **principal display panel** of a toy intended for children over 3 years.

The indication shall have the following characteristics:

The height of the equilateral triangle shall be equal to or exceed the height of the letters of the signal word "WARNING" and separated from it by a distance at least equal to the space occupied by the first letter of the signal word "W".

The word WARNING shall be in all upper case sans serif letters.

The size of the elements of the text shall be calculated according to the following table, with reference to the surface/area of the principal display panel:

Area, in. ²	0-2	+2-5	+5-10	+10-15	+15-30	+30-100	+100-400	+400
Type Size - Signal Word	3/64 in.	1/16 in.	3/32 in.	7/64 in.	1/8 in.	5/32 in.	1/4 in.	1/2 in.
Type Size - Statement of Hazard	3/64 in.	3/64 in.	1/16 in.	3/32 in.	3/32 in.	7/64 in.	5/32 in.	1/4 in.
Type Size - Other Material	1/32 in.	3/64 in.	1/16 in.	1/16 in.	5/64 in.	3/32 in.	7/64 in.	5/32 in.

The word WARNING is defined "Signal Word", the indication "CHOKING HAZARD – Small parts" is defined "Statement of Hazard", the indication "Not for children under 3 yrs." is defined "Other material". Additional warnings and indications are needed for particular kinds of toys (i.e. balloons, small balls, marble etc.).

US Market:

All toys and their packaging (if present) shall be directly and permanently marked with the following indications:

- Name and address of the manufacturer or distributor;
- Location of production (complete address);
- Date of production;
- Cohort information.

The country of origin indication of the toy shall be printed in a legible, permanent and indelible form on the packaging of the toy.

EU/UK Market

Minimum size: 10 mm



EU/UK Market:

The following indications shall be visible at the point of sale of a toy intended for children over 3 years: - "Warning, not suitable for children under 36 months." Or "Warning, not intended for children under 3 years."

Or the warning symbol to the left accompanied by the word "Warning" - Statement of the specific hazard (i.e. "Small parts. Choking hazard"). The warnings need to be in the national language(s) of the country of distribution

Minimum height: 5mm



EU/UK Market:

Name, registered trade name or trademark and address of the manufacturer (and importer where applicable) in the relevant market where goods are made available for sale.



Modern Testing Services

EUROPE & AMERICAS

France | Aix-en-Provence
Germany | Augsburg
Germany | Wilsum
Italy | Como
Spain | Alicante
Turkey | Istanbul
United Kingdom | Leeds
United Kingdom | Northampton
United States | Boston
United States | Seattle

ASIA

Bangladesh | Dhaka
Cambodia | Phnom Penh
China | Hangzhou
China | Hong Kong
China | Dongguan
China | Shanghai
China | Shenzhen
China | Qingdao
China | Xiamen
India | Bangalore
India | New Delhi
India | Noida
India | Tirupur
Indonesia | Jakarta
Pakistan | Lahore
South Korea | Seoul
Sri Lanka | Wattala
Thailand | Bangkok
Vietnam | Ho Chi Minh City

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