

केंद्रीय मुहर विभाग-2

संदर्भ का मु वि-2/16:9873

24 07 2020

विषय: IS 9873 (भाग 1,2,3,4,7,9) व IS 15644 के अनुसार Safety of Toys के लिए उत्पाद विशिष्ट दिशा निर्देश

उपरोक्त विषय के संदर्भ में अनुमोदित उत्पाद विशिष्ट दिशा निर्देश अनुपालन हेतु संलग्न है।

(आदित्य दास)
वैज्ञानिक-डी

प्रमुख, (कें. मु. वि. -2)

उपमहानिदेशक(प्रमाणन)

क्षेत्रीय/शाखा कार्यालयों/FMCD को intranet माध्यम से परिचालित

प्रतिलिपि: ITS - इंटरनेट पर अपलोड करने के लिए

CENTRAL MARKS DEPARTMENT-2

Our Ref: CMD-2/16:9873

24 07 2020

Subject: Product Specific Guidelines for certification of Safety of Toys as per IS 9873 (Parts 1,2,3,4,7,9) and IS 15644

Please find attached approved product specific guidelines on the above subject for implementation.

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Head (CMD 2)

DDG (Certification)

Circulated to: All ROs/BOs/FMCD through BIS intranet

Copy to: ITS for hosting on Intranet

CENTRAL MARKS DEPARTMENT-2

Our Ref: CMD-2/16:9873

Date: 24 July 2020

Subject: Certification of Toys – regarding

1. This has reference to the above.
2. Reference is also invited to **Toys (Quality Control) Order, 2020** issued by DPIIT, Ministry of Commerce & Industry on 25 February 2020 through which Safety of Toys as per IS 9873(Part 1): 2018; IS 9873 (Part 2): 2017; IS 9873 (Part 3): 2017; IS 9873(Part 4): 2017; IS 9873(Part 7): 2017; IS 9873(Part 9): 2017 & IS 15644:2006 has been brought under compulsory BIS certification **w.e.f. 01/09/2020**.
3. Accordingly, the following guidelines are issued for certification of Toys:

- i) Licence shall be granted by BIS under Scheme-I only under **Option-1** as per existing procedure for a period of one year.
- ii) For the purpose of certification, toys have been classified into 2 types. For each type, one primary standard shall apply against which licence would be granted and the other standards against which testing may also be required to be done shall be taken as secondary standards. However, testing will be considered by the lab based on both the primary and secondary standards applicable. The classification is as follows:

Sl. No.	Type	Primary Standard Applicable	Secondary Standards (As Applicable)
1	Non Electric Toys	IS 9873 Part 1	IS 9873 Parts 2, 3,4, 7 and 9
2	Electric Toys	IS 15644	IS 9873 Parts 1, 2, 3, 4, 7 and 9

- iii) **As per extant guidelines for Grant of Licence, being a new product, the applications shall be treated as All India First, till the first licence is granted.**
- iv) However, in order to expedite the grant of licence process, a draft product manual (incorporating grouping guidelines & SIT) and draft Marking Fee proposal have been prepared and are enclosed as **Annex-1** and **Annex-2**, respectively.
- v) The BOs which receive the initial applications for this product are advised to immediately discuss the draft product manual and marking fee proposal with the applicant and send comments if any to CMD-2 so that the product manual and marking fee rate can be finalized.

- vi) During the factory visit for considering grant of licence, factory testing should be conducted in the applicant's factory for only those requirements (as per the primary and secondary standards applicable) for only those tests which can be done in one day.
 - vii) The applicant sample is to be sent for testing **for all the requirements of the applicable primary and secondary standards** (e.g. IS 15644 will not be applicable for non-electric toys, IS 9873 (Part 4) shall not be applicable to toys other than activity toys and IS 9873 (Part 7) shall be applicable only to toys with finger paints), to a BIS Lab or BIS recognized lab for this product.
 - viii) After grant of licence, the licensee shall comply with the provisions of the finalized Scheme of Inspection and Testing (SIT) for this product.
4. In all other respects, the certification shall be done as per the provisions of the BIS (Conformity Assessment) Regulations, 2018 and guidelines issued thereunder.
5. All ROs and BOs are advised to follow these guidelines till further orders.

Aditya Das
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HCMD-2
DDG (Certification)
ROs/BOs

PM/ 9873/ 1
July 2020

**PRODUCT MANUAL FOR
SAFETY OF TOYS AS PER
IS 9873 (Parts 1,2,3,4,7,9) and IS 15644**

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

1. Product

Sl. No.	IS No.	Standard Title	No. of Amendments
1.	IS 9873 (Part 1):2019	Safety of Toys Part 1 Safety Aspects Related to Mechanical and Physical Properties	NIL
2.	IS 9873 (Part 2) : 2017	Safety of Toys Part 2 Flammability	NIL
3.	IS 9873 (Part 3) : 2017	Safety of Toys Part 3 Migration of Certain Elements	NIL
4.	IS 9873 (Part 4) : 2017	Safety of Toys Part 4 Swings, Slides and Similar Activity Toys for Indoor and Outdoor Family Domestic Use	NIL
5.	IS 9873 (Part 7) : 2017	Safety of Toys Part 7 Requirements and Test Methods for Finger Paints	NIL
6.	IS 9873 (Part 9) :2017	Safety of Toys Part 9 Certain Phthalates Esters in Toys and Children's Products	NIL
7.	IS 15644:2006	Safety of Electric Toys	1

2.	Sampling Guidelines:		
a)	Raw material	:	All materials shall be visually clean and free from infestation. The materials shall be assessed visually by normal corrected vision

								rather than under magnification. (Cl 4.3 of IS 9873 (Part 1):2019)																					
b)	Grouping guidelines	:	<i>Please refer ANNEX – A</i>																										
c)	Sample Size	:	<i>To be provided by Lab</i>																										
3.	List of Test Equipment	:	<i>Please refer ANNEX –B</i>																										
4.	Scheme of Inspection and Testing	:	<i>Please refer ANNEX –C</i>																										
5.	Possible tests in a day :																												
6.	Scope of the Licence :																												
	Licence is granted for use of BIS Standard Mark on Toys for safety requirements as per the applicable Indian Standard given below																												
	<table border="1"> <thead> <tr> <th>Type*</th> <th>Description of Toy</th> <th>Category</th> <th>Sub-category</th> <th>Model No.</th> <th>Starting Age</th> <th>Series No.</th> <th>Applicable Indian Standard</th> </tr> </thead> <tbody> <tr> <td rowspan="2"># Non Electric Toys</td> <td># Rattle</td> <td>Category A- Toys for sensorimotor activities — First age#</td> <td>Rattles and rings#</td> <td>RATL- 1#</td> <td>0 months+#</td> <td rowspan="2">S01#</td> <td rowspan="2">IS 9873 Part 1#</td> </tr> <tr> <td># Ring</td> <td>-do-</td> <td>-do-</td> <td>RNG-1</td> <td>0 months+</td> </tr> </tbody> </table>								Type*	Description of Toy	Category	Sub-category	Model No.	Starting Age	Series No.	Applicable Indian Standard	# Non Electric Toys	# Rattle	Category A- Toys for sensorimotor activities — First age#	Rattles and rings#	RATL- 1#	0 months+#	S01#	IS 9873 Part 1#	# Ring	-do-	-do-	RNG-1	0 months+
Type*	Description of Toy	Category	Sub-category	Model No.	Starting Age	Series No.	Applicable Indian Standard																						
# Non Electric Toys	# Rattle	Category A- Toys for sensorimotor activities — First age#	Rattles and rings#	RATL- 1#	0 months+#	S01#	IS 9873 Part 1#																						
	# Ring	-do-	-do-	RNG-1	0 months+																								
	<p>*Also see Sampling Guidelines at Annex – A #Details in the table are given for illustration</p>																												

ANNEX A

SAMPLING GUIDELINES

1. For the purpose of certification, toys have been classified into 2 types. For each type, one primary standard shall apply against which licence would be granted and the other standards against which testing may also be required to be done shall be taken as secondary standards. However, testing will be considered by the lab based on both the primary and secondary standards applicable. The classification is as follows:

Sl. No.	Type	Primary Standard Applicable	Secondary Standards (As Applicable)
1	Non Electric Toys	IS 9873 Part 1	IS 9873 Parts 2, 3,4, 7 and 9
2	Electric Toys	IS 15644	IS 9873 Parts 1, 2, 3,4, 7 and 9

2. Further, based on their specific purpose and function, toys have also been classified into 7 Categories and 146 sub-categories as per **APPENDIX I**(based on IS 9873 (Part 8):2019).
3. **For the purpose of certification, all the models of toys of similar design₁, made from the same materials₂ and covered under a single sub-category, shall be considered as a series.** A declaration to this effect shall be made by the manufacturer stating that these models in the same series are of similar design₁, made from the same materials₂ and covered under a single sub-category. This declaration shall be submitted to BIS along with the application for Grant of Licence (GOL) and Change in Scope of Licence (CSoL) **(As per format at APPENDIX II)**
4. Accordingly, the following sampling or grouping guidelines shall be followed for drawal and testing of samples for consideration of Grant of Licence (GOL) and Change in Scope of Licence (CSoL):

Sl. No.	Type	Samples to be drawn and tested for GOL/CSoL
1	Non Electric Toys	Sample (of required quantity) of any one model of toy from among all the models in the same series i.e. of same type, similar design₁, made from the same materials₂ and covered under a single sub-category to be drawn and tested for considering GOL or CSOL.
2	Electric Toys	Electric toys are further sub-divided into the following sub-groups according to input source: <ul style="list-style-type: none"> • Battery operated • Transformer toys • Dual-supply toys <p>Accordingly the following shall apply:</p> <p>— To cover all the models of battery operated electric toys, one model of battery operated electric toy from among all models of battery operated electric toys having the same power supply layout, same chassis, same power requirement and same battery type & size,</p>

		<p>processor/ controller (if any), same charger for externally rechargeable batteries (Alternate models of charger may be evaluated as part of the main product and mentioned in the test report), and in the same series (as per SI No 1) to be drawn and tested for considering GOL or CSOL.</p> <p>— To cover all the models of Transformer toys, one model of transformer toy from among all models of Transformer toy having the Same mains layout or SMPS board, Same enclosure (except for differences of decorative parts which do not affect the electrical safety), Same processor/ controller and in the same series (as per SI No 1) to be drawn and tested for considering GOL or CSOL.</p> <p>— To cover all the models of Dual-supply toys, one model of dual supply toy from among all models of Dual-supply toys having Same mains layout or SMPS board, Same enclosure (except for differences of decorative parts which do not affect the electrical safety), Same chassis, Same battery type & size (Alternate models of batteries may be evaluated as part of the main product and mentioned in the test report), Same processor/ controller and in the same series (as per SI No 1) to be drawn and tested for considering GOL or CSOL.</p>
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Footnotes:

¹“Similar Design” pertains to models which have similar designs in terms of compliance to the safety requirements specified in the relevant Indian Standards

² “Same materials” pertains to material of the same nature (i.e. LLDPE or PVC or HDPE or Cotton Fabric etc.).

5. However, if any model pertains to a category/sub-category which is not covered in the 7 Categories and 146 sub-categories as per Annex I, the manufacturer shall declare the same. **In case of such models, the above sampling guidelines shall not apply and each such model shall be required to be got tested from third party lab for covering them in the scope of licence.**
6. The Scope of Licence shall be restricted based on the manufacturing and testing capabilities of the manufacturer.
7. During the operation of the Licence, BO shall ensure that all the varieties covered in the Licence are tested in rotation to the extent possible.

ANNEX B

List of Test Equipment

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests used in with Clause Reference			Test Equipment
	Test	Clause	IS	
1.	Small parts test	5.2	IS 9873 (Part 1):2019	Cylinder as shown in Figure 26
2.	Test for shape and size of certain toys	5.3	-do-	Test template A shown in Figure 27 , Supplemental test template B shown in Figure 28
3.	Small balls test	5.4	-do-	Test template C shown in Figure 29
4.	Test for pompoms	5.5	-do-	test template C shown in Figure 29
5.	Test for pre-school play figures	5.6	-do-	Supplemental test template B shown in Figure 28
6.	Accessibility of a part or component	5.7	-do-	Articulated accessibility probe,
7.	Sharp-edge test	5.8	-do-	Sharp-edge test as per Figure 31 , Steel Mandrel, Device for rotating the mandrel and applying a force to it, Pressure-sensitive polytetrafluoroethylene (PTFE) tape
8.	Sharp-point test	5.9	-do-	Point tester,
9.	Determination of thickness of plastic film and sheeting	5.10	-do-	A measuring device capable of measuring thickness to an accuracy of 4 µm with plane upper and lower measuring surfaces having a diameter of (6 ± 1) mm that are parallel to within 5 µm and have polished surfaces, and which applies a compression force of (0,75 ± 0,25) N.
10.	Test for cords	5.11	-do-	Suitable apparatus capable of applying and measuring tensile forces up to (25 ± 2) N, instruments to measure length and cross sectional area of cords e.g. an optical projector, head probe (see Figure 35), hook test fixture (Figure 36), mass of (1 ± 0,1) kg, conditioning chamber to maintain samples at a temperature of (25 ± 3) °C and at a relative humidity of 50 % to 65 %.
11.	Stability and overload tests	5.12	-do-	smooth surfaces inclined 10+0.5°/-0.0° and 15+0.5°/-0.0°, 10±1° to the horizontal plane, Loads for stability test (25 ± 0,2, 50 ± 0,5 kg), Loads for overload test (35 ± 0,3, 80 ± 1,0, 140

				± 2,0)
12.	Test for closures and toy chest lids	5.13	-do-	<p>Suitable apparatus capable of applying and measuring tensile forces up to $(45 \pm 1,3)$ N in an outward direction to the inside of the closure perpendicular to the plane of the closure</p> <p>Durability test apparatus to subject the lid to 7 000 opening-and-closing cycles, where one cycle consists of raising the lid from its fully closed to its fully open position and returning it to fully closed. The time to complete one cycle shall be approximately 15 s. The 7 000 cycles shall be completed within a time period of 72 h.</p>
13.	Impact test for toys that cover the face	5.14	-do-	Suitable apparatus to drop a steel ball with a diameter of $(16 \pm 0,15)$ mm and mass of $(16,9 \pm 0,7)$ g from a height of $(130 \pm 0,5)$ cm onto the horizontal upper surface of the toy in the area that would cover the eyes in normal use.
14.	Kinetic energy and wall impact test	5.15	-do-	Timing device for determining the velocity, to give a calculated kinetic energy to an accuracy of 0,005 J.
15.	Free-wheeling facility and brake performance test	5.16	-do-	Apparatus for Stability and overload tests, surface covered with aluminium oxide paper P60, Apparatus to Pull the toy at a constant speed of $(2 \pm 0,2)$ m/s and apply and measure forces of (50 ± 2) N to the pedal in the operating direction producing the effect of the brake, mass of $(50 \pm 0,5)$ kg
16.	Determination of speed of electrically driven ride-on toys	5.17	-do-	mass of $(25 \pm 0,2)$ kg, horizontal surface, Apparatus to check if velocity exceeds 8 km/h.
17.	Determination of temperature increases	5.18	-do-	ambient draft-free atmosphere with a temperature of (21 ± 5) °C, Thermometer/appropriate equipment to Measure the temperature of the accessible parts
18.	Leakage of liquid-filled toys	5.19	-do-	Conditioning chamber to condition toy at a temperature of (37 ± 1) °C, Apparatus to apply a force of 5 N to the external surface of the toy through a steel needle with a diameter of $(1 \pm 0,1)$ mm and with a tip radius of $(0,5 \pm 0,05)$ mm
19.	Durability of mouth-actuated toys	5.20	-do-	Durability test apparatus comprising piston pump capable of discharging and receiving more than 300 cm ³ of air in less than 3 s to the mouthpiece of the mouth-actuated toy with a relief valve so arranged that the pump

				will not generate a positive or negative pressure of more than 13,8 kPa.
20.	Expanding materials	5.21	-do-	Conditioning chamber to condition the toy or component at (21 ± 5) °C and at a relative humidity of 40 % to 65 %, calipers, demineralized water, container of requisite dimensions, tongs
21.	Folding or sliding mechanisms	5.22	-do-	Loads of mass $(25 \pm 0,2)$ kg and $(50 \pm 0,5)$ kg, horizontal surface, Apparatus/support frames to apply the loads
22.	Washable toys	5.23	-do-	Automatic washing machine, dummy loads, washer, dryer or laundry detergent, Apparatus to measure mass (Weighing scale etc.)
23.	Reasonably foreseeable abuse tests	5.24	-do-	<p>Drop test: impact surface shall consist of vinyl composition tile of approximately 3 mm nominal thickness laid over concrete of at least 64 mm thickness. The tile shall have a hardness of (80 ± 10) Shore A and the impact surface shall be at least 0,3 m².</p> <p>Tip-over test for large and bulky toys: Apparatus to Gradually apply a force, which is not to exceed 120 N, in a horizontal direction and 1 500 mm above the horizontal surface or at the top edge of the toy for toys less than 1 500 mm in height. A non-resilient step with a height of (25 ± 2) mm shall be positioned such that it prevents sliding or rolling of the toy during the test.</p> <p>Dynamic strength test for wheeled ride-on toys other than toy scooters: Loads and Drive</p> <p>Torque test: torque gauge or torque wrench to apply torque of $(0,45 \pm 0,02)$ N·m</p> <p>Tension and Compression test: Tension and Compression Test Apparatus with loading device equipped with a self-indicating gauge or other appropriate means to measure force applied to accuracy of 1 N</p> <p>Flexure test: Apparatus as per 5.24.8</p>
24.	Determination of sound pressure levels	5.25	-do-	Environment that meets the qualification requirements of either ISO 11201 or ISO 11202, Equipment for Noise measurement in dB including instrumentation system, including the microphone and cable as per class 1 instrument as specified in IEC 61672-1, standard test table as described in ISO 11202 (wooden top with a

				thickness of 4 cm or larger and leg construction providing a stable test surface), hypothetical box-shaped measurement surface (see Figure 43), reflecting plane (for example, concrete, tile or another hard surface) and a test rig for Pull or push toys, test rig for Cap firing toys
25.	Static strength for toy scooters	5.26	-do-	Test masses for toy scooters of $(50 \pm 0,5)$ kg, (100 ± 1) kg of dimensions as per Figure 47
26.	Dynamic strength for toy scooters	5.27	-do-	Load as specified in Figure 48 , equipped with two articulated arms and a removable cushion with straps, platform
27.	Brake performance for toy scooters	5.28	-do-	250 mm high platform (with stabilizers) with a total mass of $(4,8 \pm 0,2)$ kg as shown in Figure 49 , mass of $(50 \pm 0,5)$ kg, $(25 \pm 0,2)$ kg, Setup to apply and measure force applied up to 20 kg/30 N.
28.	Strength of toy scooter steering tubes	5.29	-do-	horizontal plane equipped to secure the toy scooter, mass of $(25 \pm 0,2)$ kg, $(50 \pm 0,5)$ kg, (100 ± 1) kg
29.	Resistance to separation of handlebar	5.30	-do-	Setup to apply and measure force applied up to 90 N
30.	Tension test for magnets	5.31	-do-	Tension test apparatus with Nickel disc with a minimum nickel content of 99 %, a diameter of $(30 \pm 0,5)$ mm and thickness of $(10 \pm 0,5)$ mm.
31.	Magnetic flux index	5.32	-do-	Magnetic flux index test apparatus with Direct current field Gauss meter, with a resolution of 5 G, capable of determining the field to an accuracy of 1,5 % or better. The meter shall have an axial type probe with an active area diameter of $(0,76 \pm 0,13)$ mm and a distance between the active area and probe tip of $(0,38 \pm 0,13)$ mm, Calliper, or similar device, with an accuracy of 0,1 mm.
32.	Impact test for magnets	5.33	-do-	Impact test for magnets apparatus with plane horizontal steel surface and arrangement to drop a metallic weight with a mass of $(1 \pm 0,02)$ kg, distributed over a diameter of (80 ± 2) mm, through a distance of (100 ± 2) mm onto the toy
33.	Soaking test for magnets	5.34	-do-	Container of demineralized water maintained at a temperature of (21 ± 5) °C for 4 min
34.	Determination of projectile range	5.35	-do-	Apparatus to Discharge the projectile using a discharge angle that will maximize the distance travelled (typically this is 45°). At the point of discharge, the projectile shall be disengaged from the discharge mechanism and in free flight.

35.	Tip assessment of rigid projectiles	5.36	-do-	gauge shown in Figure 54
36.	Length of suction cup projectiles	5.37	-do-	flat horizontal surface, measuring scale/tape
37.	Yo-yo ball measurements	5.38	-do-	Setup for Yo-yo ball measurements including fixed clamping device
38.	Flammability		IS 9873 (Part 2):2017	Test burner as described in ISO 6941:2003 Conditioning and test chamber Fire extinguishers and other protective equipment
39.	Migration of Certain Elements		IS 9873 (Part 3) : 2017	<p>Reagents</p> <ul style="list-style-type: none"> • Hydrochloric acid solution, $c(\text{HCl}) = (0,07 \pm 0,005) \text{ mol/l}$. • Hydrochloric acid solution, $c(\text{HCl}) = (0,14 \pm 0,010) \text{ mol/l}$. • Hydrochloric acid solution, $c(\text{HCl}) = \text{approximately } 1 \text{ mol/l}$. • Hydrochloric acid solution, $c(\text{HCl}) = \text{approximately } 2 \text{ mol/l}$. • Hydrochloric acid solution, $c(\text{HCl}) = \text{approximately } 6 \text{ mol/l}$. • General purpose reagent <i>n</i>-heptane, (C_7H_{16}); 99 %. • Water of at least grade 3 purity, in accordance with ISO 3696. <p>Apparatus</p> <ul style="list-style-type: none"> • Normal laboratory apparatus and • Plain-weave wire-cloth stainless steel metal sieve, of nominal aperture 0,5 mm and tolerances as indicated in Table A.1. • Means of measuring pH to an accuracy of $\pm 0,2$ pH units. Cross-contamination shall be prevented. • Membrane filter, of pore size 0,45μm. • Centrifuge, capable of centrifuging at $(5\ 000 \pm 500)$ • Means of agitating the mixture, at a temperature of $(37 \pm 2) ^\circ\text{C}$. • Series of containers, of gross volume between 1,6 \times and 5,0 \times that of the volume of hydrochloric acid extractant • Analytical Weighing balance <p>Instrumentation</p>

				Suitable instrument having a detection limit of a maximum of 1/10 of the values to be determined
40.	Stability of activity toys with a free height of fall of 600 mm or less	6.1.1	IS 9873 (Part 4):2017	<ul style="list-style-type: none"> — Loads of mass (50 ± 0,5) kg and dimensions as given in Figure 19. — Loads of mass (25 ± 0,2) kg and dimensions as given in Figure 19. — Inclined plane of (10 ± 1)°.
41.	Stability of activity toys with a free height of fall of more than 600 mm	6.1.2	-do-	<ul style="list-style-type: none"> — Suitable device(s) to apply a horizontal force of (120 ± 5) N. — Stops, if needed.
42.	Stability of slides	6.1.3	-do-	<ul style="list-style-type: none"> — Loads of mass (50 ± 2) kg and dimensions as given in Figure 19. — Inclined plane of (10 ± 1)°.
43.	Stability of swings and other activity toys with crossbeams more than 1 200 mm above the ground	6.1.4.1	-do-	<ul style="list-style-type: none"> — Suitable device(s) to apply a horizontal force from 125 N to (2 000 ± 20) N according to Table 4. — Stops, if needed.
44.	Stability of swings and other activity toys with crossbeams 1 200 mm or less above the ground	6.1.4.2	-do-	<ul style="list-style-type: none"> — Loads of mass (25 ± 0,2) kg and dimensions as given in Figure 19. — Blocks, if needed.
45.	Stability of toddler swings	6.1.5	-do-	Pendulum test apparatus constructed in accordance with dimensions and materials specified in Figure 21 .
46.	Strength of toys other than swings	6.2.1	-do-	<ul style="list-style-type: none"> — Load(s) of mass (50 ± 0,5) kg and dimensions as given in Figure 19. — Load(s) of mass (25 ± 0,2) kg and dimensions as given in Figure 19.
47.	Strength of swings and similar toys	6.2.2	-do-	<p>a) For swings, except those covered by b):</p> <ul style="list-style-type: none"> — a load with a mass of (200 ± 10) kg; — loads with a mass of (50 ± 2) kg. <p>b) For swings intended for children under 36 months and with suspension points 1 200 mm or less above the base level:</p> <ul style="list-style-type: none"> — a load with a mass of (66 ± 3) kg.
48.	Dynamic	6.3	-do-	— A pad with a length of 200 mm and a height

	strength of barriers and handrails			of 50 mm minimum made of textile, leather or similar material and stuffed with suitable material and with a shape that will enable it to be attached to the top of a barrier or handrail. — A device consisting of a pulley and a (25 ± 1) kg mass attached to one end of a non-elastic cord, that will enable a horizontal impact to be applied to the pad on the barrier or handrail by means of a freefalling mass.
49.	Determination of impact from swing elements	6.4	-do-	— Test mass, consisting of an aluminium sphere or semi-sphere of radius $80 \text{ mm} \pm 3 \text{ mm}$, and a total mass (including accelerometer) of $(4,6 \pm 0,05) \text{ kg}$. The impacting part between the surface struck and the accelerometer shall be homogeneous and free from voids. Cables connected to the accelerometer shall be placed in such a way that the effect on the mass of the test mass is minimized. An example is given in Figure 24 . — Accelerometer, mounted at the centre of gravity of the test mass assembly with the sensitivity axis aligned to within 2° of the direction of travel of the test mass, capable of measuring acceleration triaxially in the range of $\pm 500 \text{ g}$ with an accuracy of $\pm 0,1 \text{ g}$ and with a frequency range from 0 Hz to 10 000 Hz. — Amplifier with a sampling frequency of 10 kHz and a cut-off frequency of 10 kHz. — Two chains where the chain links have a thickness of material (diameter) of $(6 \pm 0,5) \text{ mm}$ and an outer major dimension of $(47 \pm 2) \text{ mm}$. The chains shall be of equal length suspended from pivots 600 mm apart at the same height as the suspension connectors, such that they meet at the point of connection to the test mass. The fictive prolongations of the chains shall meet in the centre of the test mass (see Figure 24).
50.	Test for head and neck entrapment -	6.5	-do-	Test probes made of any suitably rigid material and with dimensions as given in Figures 25, 26 and 27 . (Head and neck entrapment in completely bound openings) Test template made of any suitable rigid material and with dimensions as given in Figure 28 (Head and neck entrapment in partially bound and V-shaped openings)
51.	Toggle test	6.6	-do-	Toggle test device as shown in Figure 31 a) comprising of: — toggle, as shown in Figure 31 b) , made of polyamides (PA) (e.g. nylon) or

				<p>polytetrafluoroethylene (PTFE), which have been found to be suitable materials;</p> <ul style="list-style-type: none"> — chain, as shown in Figure 31 c); — collar, detachable and with good slip; — pole.
52.	Test for protrusions	6.7	-do-	<p>Test gauges made of any suitable rigid material and with dimensions as given in Figure 34. 50 (All Protrusions)</p> <p>A test gauge made of any suitable rigid material and with dimensions as given in Figure 36. (Protrusions in motion rides)</p>
53.	Durability test for suspension connectors and means of suspension	6.8	-do-	Test masses as specified in Table 5
54.	Deflation of inflatable activity toys	6.9	-do-	<p>Loading pad, made of a rigid material with a diameter of 400 mm.</p> <p>Additional loads, consisting of sandbags sufficient to make up the test loads as specified in Table 6.</p>
55.	Static load test for paddling pools with non-inflatable walls	6.10	-do-	25 kg load
56.	Test Methods For Finger Paints - Limits for primary aromatic amines	4.5.1	IS 9873 (Part 7) : 2017	<p>Reagents:</p> <ul style="list-style-type: none"> • Methanol., Acetonitrile, <i>tert</i>-Butyl methyl ether, Citrate/sodium hydroxide buffer, Sodium dithionite solution, Porous, granular "kieselguhr" SPE column, Anhydrous sodium sulfate, Certified amine standards • Internal standards for gas chromatography: IS 1: 2,4,5-Trichloroaniline, CAS No. 636-30-6., IS 2: 4-Amino-2-methylquinoline, CAS No. 6628-04-2., IS 3: Tributylphosphate, CAS No. 126-73-8; • Standard solutions: Stock solution of aromatic amines, • Calibration solutions, Internal standard solution, Recovery solution of aromatic amines <p>Apparatus</p> <ul style="list-style-type: none"> • Reaction vessel (50 ml conical flask) of

				<p>temperature-resistant glass with tight-fitting cap.</p> <ul style="list-style-type: none"> • Water bath, capable of maintaining a temperature of $(37 \pm 2) ^\circ\text{C}$ and $(70 \pm 2) ^\circ\text{C}$. • Column made from glass or polypropylene, 25 mm to 30 mm internal diameter, 140 mm to • 150 mm length, filled with about 20 g porous, granular "kieselguhr" SPE material, fitted on the outlet • with a glass fibre filter (or commercial SPE column)³). • Vacuum rotary evaporator or equivalent low temperature sample concentration system. • Pipettes 10 ml, 5 ml, 2 ml, 1 ml. <p>Instrumentation (The analysis shall be performed using equipment selected from the following list)</p> <ul style="list-style-type: none"> • HPLC with gradient-elution and AD. • GC with MS.
57.	Test Methods For Finger Paints - Limits for other impurities	4.5.2	-do-	<p>Standards, reagents and solvents</p> <ul style="list-style-type: none"> • Hexane, analytical grade. • Cyclohexane, analytical grade. • Acetone, analytical grade. • trimethylpentane, analytical grade. • Toluene, analytical grade. • Cyclohexane (E.2.2): acetone (E.2.3) 1:1 v/v mixture. • Toluene (E.2.5):acetone (E.2.3) 2:1 v/v mixture. • Anhydrous sodium sulfate. • Hexachlorobenzene (HCB), CAS No 118-74-1, > 99 %. • Commercial PCB standard mixture or individual PCB congeners <ul style="list-style-type: none"> — PCB congener 11 (3,3'-Dichlorobiphenyl), CAS No: 2050-67-1; — PCB congener 28 (2,4,4'-Trichlorobiphenyl), CAS No: 7012-37-5; — PCB congener 52 (2,2',5,5'-Tetrachlorobiphenyl), CAS No: 35693-99-3; — PCB congener 101 (2,2',4,5,5'-Pentachlorobiphenyl), CAS No: 37680-73-2; — PCB congener 118 (2,3',4,4',5-Pentachlorobiphenyl), CAS No: 31508-00-6; — PCB congener 138 (2,2',3,4,4',5'-Hexachlorobiphenyl), CAS No: 35065-28-2;

				<ul style="list-style-type: none"> — PCB congener 153 (2,2',4,4',5,5'-Hexachlorobiphenyl), CAS No: 35065-27-1; — PCB congener 180 (2,2',3,4,4',5,5'-Heptachlorobiphenyl), CAS No:35065-29-3; — PCB congener 209 (Decachlorobiphenyl), CAS No: 2051-24-3, • Benzo[α]pyrene (B[α]P), CAS No: 50-32-8, > 99 %. • Internal standards. <ul style="list-style-type: none"> ○ HCB 13C6, CAS No: 118-74-1. ○ PCB congener 101 13C12, CAS No: 37680-73-2. ○ PCB congener 138 13C12, CAS No: 35065-28-2. ○ B [α]P d12, CAS No: 63466-71-7. • Primary standard solutions. • Calibration standards. <p>Apparatus</p> <ul style="list-style-type: none"> • Amber coloured glass bottle approximately 40 ml volume with tight-fitting screw cap. • Analytical balance, capable of weighing to 4 decimal places. • Glass microfibre thimble, 33 mm diameter x 100 mm. • Soxhlet extractor with siphon cup to hold a 33 mm diameter x 100 mm thimble. • Water cooled condenser. • 250 ml round bottom flask. • Spark proof heating mantle. • Sample concentration system with nitrogen gas stream. • Solid phase extraction column made from either glass or polypropylene, 25 mm to 30 mm internal diameter, 140 mm to 150 mm length, filled with about 20 g porous, granular “kieselguhr” SPE material (or commercial SPE column). <p>Instrumentation</p> <ul style="list-style-type: none"> • A gas chromatograph-mass spectrometric system • Analytical capillary column
58.	Determination Of Certain Phthalate Esters		IS 9873 (Part 9):2017	<p>Reagents</p> <ul style="list-style-type: none"> • Dichloromethane, CAS No. 75-09-2, analytical grade or higher, free of phthalate esters.

				<ul style="list-style-type: none"> Phthalate reference substances, DBP, BBP, DEHP, DNOP, DINP, and DIDP (see Annex A), minimum of 95 % purity. Stock solution, 100 mg/l of DBP, BBP, DEHP, DNOP each, and 500 mg/l of DINP, DIDP each in dichloromethane External Standard (ES) calibration solutions. Internal Standard (IS) calibration solutions. <p>Apparatus</p> <ul style="list-style-type: none"> Normal laboratory glassware. Gas chromatography-mass spectrometer (GC-MS), with a capillary column coupled to a mass Spectrometric detector (electron ionization, EI) used for the analysis. See 7.4.1. Soxhlet extractor, see Figure B.1. Solvent extractor, see Figure B.2. Extraction thimble, cellulose. Cotton wool, for extraction thimble. Analytical balance, capable of measuring to an accuracy of 0,001 g. Concentration apparatus, for example, a rotary evaporator. Solid phase extraction (SPE) cartridge, 1000 mg silica gel/6 ml tubes, or equivalent. Volumetric flasks, of 5 ml, 10 ml, 25 ml, 50 ml, and 100 ml nominal capacity. Pipettes, of 0,5 ml, 1 ml, 2 ml, 5 ml, and 10 ml nominal capacity. Polytetrafluoroethylene (PTFE) membrane filter, of pore size 0,45 µm
59.	Tests for Safety of Electric Toys - Heating and abnormal operation test	9	IS 15644:2006	<ul style="list-style-type: none"> Test corner consisting of two walls at right angles and a floor made of dull black-painted plywood having a thickness of approximately 20 mm. 4 layers of Bleached cotton gauze having dimensions of 500mm x 500 mm and a specific mass of $40 \text{ g/m}^2 \pm 8 \text{ g/m}^2$. Fine-wire thermocouples and temperature recorder for determination of rise of temperature <i>Straight steel pin of length 25mm min having a diameter of 0,5 mm, or rod</i>

				<p><i>of length 100 mm min having a diameter of 1.0 mm</i></p> <ul style="list-style-type: none"> • <i>power supply</i> • <i>Apparatus for needle flame test (Annex B)</i> • <i>Apparatus for low power circuit determination</i>
60.	Electric strength at operating temperature	10	-do-	<ul style="list-style-type: none"> • <i>power supply</i> • <i>Voltmeter, ammeter, oscilloscope</i>
61.	Moisture resistance	11	-do-	<ul style="list-style-type: none"> • <i>Test apparatus as per 14.2.4 of IS/IEC 60529</i> • <i>Humidity cabinet capable of maintaining relative humidity of (93± 3) %.</i>
62.	Electric strength at room temperature	12	-do-	<ul style="list-style-type: none"> • <i>power supply</i> • <i>Voltmeter, ammeter, oscilloscope</i>
63.	Mechanical strength	13	-do-	<ul style="list-style-type: none"> • <i>Impact Hammer test apparatus as per test Ehb of IS 9000 (Pt 7/ Sec 7)/ IEC 60068-2-75.</i>
64.	Construction	14	-do-	<ul style="list-style-type: none"> • <i>power supply</i> • <i>Voltmeter</i> • <i>Steel surface, cylindrical metallic 1 kg mass of dia 80mm</i> • <i>Pull force gauge up to 90 N</i> • <i>Calipers, measuring scale/tape</i>
65.	Protection of cords and wires	15	-do-	<ul style="list-style-type: none"> • <i>Calipers, measuring scale/tape</i>
66.	Components	16	-do-	<ul style="list-style-type: none"> • <i>Based on TC/ Certification</i>
67.	Screws and connections	17	-do-	<ul style="list-style-type: none"> • <i>Tools such as spanners, wrenches and pliers, torque gauge</i>
68.	Clearances and creepage distances	18	-do-	<ul style="list-style-type: none"> • <i>Calipers, gauges, measuring scale/tape</i>
69.	Resistance to heat and fire	19	-do-	<ul style="list-style-type: none"> • <i>Apparatus for ball pressure test of IS/IEC 60695-10-2.</i> • <i>Apparatus for glow-wire test of IS/IEC 60695-2-11,</i> • <i>Apparatus for needle flame test (Annex B)</i>
70.	Radiation, toxicity and similar hazards	20	-do-	<ul style="list-style-type: none"> • <i>As per IS 9873 (Part 3)</i>
71.	Power Input	8	-do-	<ul style="list-style-type: none"> • <i>Voltmeter, Wattmeter</i>
72.	Marking	7	-do-	<ul style="list-style-type: none"> • <i>Petroleum spirit, water</i>

The above list is indicative only and may not be treated as exhaustive.

References to figure and table nos are to the respective figures and tables in the relevant Indian Standard

ANNEX B

Scheme of Inspection and Testing

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipments.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. PACKING AND MARKING — The Standard Mark, as given in the Schedule of the licence, shall be marked on the primary packaging legibly and indelibly provided always that material so marked conform to requirements of the specification.

3.1 Packing and marking/labelling including warnings and other instructions and information required to be provided (for assembly, maintenance etc.) shall be done as per the provisions of the Indian Standard. In addition, the following shall be incorporated on each container:

i) BIS Licence Number CM/Land

ii) BIS website details i.e. “For details of BIS certification please visit www.bis.gov.in”.

5. CONTROL UNIT – For the purpose of this scheme, the entire quantity of the toys of the same type and series (See Sampling guidelines at Annex A) produced under similar conditions of manufacture shall constitute a control unit.

6. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

6.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

7. REJECTIONS – Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1
LEVELS OF CONTROL

PART 1:
LEVELS OF CONTROL FOR SAFETY ASPECTS RELATED TOMECHANICAL AND PHYSICAL PROPERTIES
AS PER IS 9873 (PART 1):2019

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
4.3.1	Material quality	4.3.1	IS 9873 (Part 1)	R	One	Each consignment of material	
4.3.2	Expanding materials	5.21	-do-	R	-do-	-do-	
4.4	Small parts	5.24, 5.2	IS 9873 (Part 1)	R	one	Each Control Unit	
4.5	Shape, size and strength of certain toys						
4.5.1	Squeeze toys, rattles, fasteners, and certain other toys and components of toys	5.3	IS 9873 (Part 1)	R	one	Each Control Unit	
4.5.2	Small balls	5.4, 5.24	-do-	R	one	Each Control Unit	
4.5.3	Pompoms	5.24.6.3	-do-	R	one	Each Control Unit	
4.5.4	Pre-school play figures	5.6	-do-	R	one	Each Control Unit	
4.5.5	Toy pacifiers	4.5.5	-do-	R	one	Each Control Unit	
4.5.6	Balloons	4.5.6	-do-	R	one	Each Control Unit	
4.5.7	Marbles	5.24, 4.5.7	-do-	R	one	Each Control Unit	
4.5.8	Hemispheric-shaped toys	5.24, 4.5.8	-do-	R	one	Each Control Unit	

4.6	Edges						
4.6.1	Accessible sharp edges of glass or metal	5.8, 4.6.1	IS 9873 (Part 1)	R	one	Each Control Unit	
4.6.2	Functional sharp edges	4.6.2	-do-	R	one	Each Control Unit	
4.6.3	Edges on metal toys	5.8, 4.6.2	-do-	R	one	Each Control Unit	
4.6.4	Edges on moulded toys	4.6.4	-do-	R	one	Each Control Unit	
4.6.5	Edges on exposed bolts or threaded rods	5.24.7, 5.24, 5.24.5, 5.24.6.1, 4.6.5	-do-	R	one	Each Control Unit	
4.7	Points						
4.7.1	Accessible sharp points	5.9	IS 9873 (Part 1)	R	one	Each Control Unit	
4.7.2	Functional sharp points	4.7.2	-do-	R	one	Each Control Unit	
4.7.3	Wooden toys	4.7.3	-do-	R	one	Each Control Unit	
4.8	Projections	4.8	-do-	R	one	Each Control Unit	
4.9	Metal wires and rods	5.24.8.2, 5.24.8.3, 5.24.6.4, 5.8, 5.9, 4.9	-do-	R	one	Each Control Unit	
4.10	Plastic film or plastic bags in packaging and in toys	4.10, 5.10	-do-	R	one	Each Control Unit	
4.11	Cords	5.11.1, 5.11.2, 5.11.3, 5.11.4, 5.11.5, 5.11.6	-do-	R	one	Each Control Unit	
4.12	Folding mechanisms						

4.12.1	Toy pushchairs, perambulators and similar toys	4.12.1, 5.22.2	IS 9873 (Part 1)	R	one	Each Control Unit	
4.12.2	Other toys with folding mechanisms	4.12.2, 5.22.3	-do-	R	one	Each Control Unit	
4.12.3	Hinge-line clearance	4.12.3	-do-	R	one	Each Control Unit	
4.13	Holes, clearances and accessibility of mechanisms						
4.13.1	Circular holes in rigid materials	4.13.1	IS 9873 (Part 1)	R	one	Each Control Unit	
4.13.2	Accessible clearances for movable segments	4.13.2	-do-	R	one	Each Control Unit	
4.13.3	Chains or belts in ride-on toys	4.13.3, 5.7	-do-	R	one	Each Control Unit	
4.13.4	Other driving mechanisms	4.13.4	-do-	R	one	Each Control Unit	
4.13.5	Winding keys	4.13.5	-do-	R	one	Each Control Unit	
4.14	Springs	4.14	-do-	R	one	Each Control Unit	
4.15	Stability and overload requirements	4.15.1.1 to 4.15.1.3, 5.12.2, 5.12.3, 5.12.4, 5.12.5, 5.12.6	-do-	R	one	Each Control Unit	
4.16	Enclosures						
4.16.1	Ventilation	4.16.1	IS 9873 (Part 1)	R	one	Each Control Unit	
4.16.2	Closures	4.16.2, 5.13.1, 5.13.2.1, 5.13.2.2	-do-	R	one	Each Control Unit	
4.16.3	Toys that enclose	4.16.3	-do-	R	one	Each Control	

	the head					Unit	
4.17	Simulated protective equipment, such as helmets, hats and goggles	4.17, 5.14	-do-	R	one	Each Control Unit	
4.18	Projectile toys	4.18.1 to 4.18.4	-do-	R	one	Each Control Unit	
4.19	Rotors and propellers	4.19, 5.35	-do-	R	one	Each Control Unit	
4.20	Aquatic toys	4.20	-do-	R	one	Each Control Unit	
4.21	Braking	4.21, 5.16.1, 5.16.2	-do-	R	one	Each Control Unit	
4.22	Toy bicycles	4.22.1 to 4.22.3	-do-	R	one	Each Control Unit	
4.23	Speed limitation of electrically driven ride-on toys	4.23	-do-	R	one	Each Control Unit	
4.24	Toys containing a heat source	4.24, 5.18	-do-	R	one	Each Control Unit	
4.25	Liquid-filled toys	4.25, 5.19	-do-	R	one	Each Control Unit	
4.26	Mouth-actuated toys	4.26, 5.2, 5.24.5, 5.24.6.1, 5.20	-do-	R	one	Each Control Unit	
4.27	Toy roller skates, toy inline skates and toy skateboards	4.27	-do-	R	one	Each Control Unit	
4.28	Percussion caps specifically designed for use in toys	4.28	-do-	R	one	Each Control Unit	

4.29	Acoustic requirements	5.25	-do-	R	one	Each Control Unit	
4.30	Toy scooters	4.30.1 to 4.30.8, 5.26, 5.27, 5.285.29, 5.12.2, 5.30	-do-	R	one	Each Control Unit	
4.31	Magnets and magnetic components	5.31, 5.32, 5.2, 5.34, 5.24.2 or 5.24.3, 5.24.5, 5.24.6.1, 5.24.6.2, 5.33, 5.24.7	-do-	R	one	Each Control Unit	
4.31	Yo-yo balls	5.38.1, 5.38.2	-do-	R	one	Each Control Unit	
4.33	Straps intended to be worn fully or partially around the neck	5.11.3	-do-	R	one	Each Control Unit	
4.34	Sledges and toboggans with cords for pulling	4.34	-do-	R	one	Each Control Unit	
4.35	Jaw entrapment in handles and steering wheels	4.35, 5.39	-do-	R	one	Each Control Unit	

Notes for IS 9873 (Part 1)

- i. **Normal use:** All toys shall be tested in accordance with the relevant tests in 5.1 (general) to 5.22 (folding or sliding mechanisms) in order to ensure that risks as a result of normal wear and/or deterioration are minimized. Toys labelled as washable shall be subjected to washing in accordance with 5.23 (washable toys). After testing, the toy shall continue to conform to the relevant requirements of Clause 4 (requirements).
- ii. **Reasonably foreseeable abuse:** After normal use tests, toys intended for children under 96 months, unless otherwise stated, shall be tested in accordance with the relevant tests in 5.24 (reasonably foreseeable abuse tests) to ensure that risks as a result of reasonably foreseeable abuse are

minimized. After testing, the toy shall continue to conform to the relevant requirements of [Clause 4](#) (requirements).

PART 2:
LEVELS OF CONTROL FOR SAFETY ASPECTS RELATED TO FLAMMABILITY
AS PER IS 9873 (PART 2):2017

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
4.1	General	4.1	IS 9873 (Part 2)	R	One	Each control unit	
4.2	Toys to be worn on the head						
4.2.2	Beards, moustaches, wigs, etc. made from <i>hair, pile, or material that behaves in a similar manner to hair</i> (e.g. free-hanging ribbons, paper, cloth strands, or other flowing elements), which protrude 50 mm or more from the surface of the toy	4.2.2, 5.2	IS 9873 (Part 2)	R	One	Each control unit	
4.2.3	Beards, moustaches, wigs, etc. made from	4.2.3, 5.3	IS 9873 (Part 2)	R	One	Each control unit	

	<p><i>hair, pile, or material that behaves in a similar manner to hair (e.g. free-hanging ribbons, paper, cloth strands, or other flowing elements), which protrude less than 50 mm and more than 5 mm from the surface of the toy</i></p>						
4.2.4	Full or partial moulded head masks	4.2.4, 5.3	IS 9873 (Part 2)	R	One	Each control unit	
4.2.5	<p>Flowing elements of toys to be worn on the head (except those covered by 4.2.2 and 4.2.3), hoods, headdresses, etc. and masks not covered by 4.2.4 which partially or fully cover the head (e.g. fabric and cardboard masks, eye</p>	4.2.5, 5.4	IS 9873 (Part 2)	R	One	Each control unit	

	masks, face masks), but excluding those items covered by 4.3						
4.3	Toy disguise costumes and toys intended to be worn by a child in play	4.3	IS 9873 (Part 2)	R	One	Each control unit	
4.4	Toys intended to be entered by a child	4.4, 5.4	IS 9873 (Part 2)	R	One	Each control unit	
4.5	Soft-filled toys	4.5, 5.5	IS 9873 (Part 2)	R	One	Each control unit	

PART 3:
LEVELS OF CONTROL FOR MIGRATION OF CERTAIN ELEMENTS
AS PER IS 9873 (PART 3):2017

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
4	Sb	4.1, 4.2, 5, 6.1 to 6.2.6,	IS 9873 (Part 3) IS 9873 (Part 1)	S	One	Once in 3 months for each model of toys	Also to be tested whenever supplier of material changes
	As	7,	EN 71-3	S	One	-do-	-do-
	Ba	8.1 to 8.9.4,	ISO 3696	S	One	-do-	-do-
	Cd	9, 10,		S	One	-do-	-do-
	Cr	1.2 to 1.4,		S	One	-do-	-do-

	Pb	3.1 to 3.7		S	One	-do-	-do-
	Hg	Annex-A Annex-B,		S	One	-do-	-do-
	Se	Annex-C Table-1 , Table-2, Table-A.1 & Table-B.1		S	One	-do-	-do-

PART 4:
LEVELS OF CONTROL FOR SAFETY OF SWINGS, SLIDES AND SIMILAR ACTIVITY TOYS FOR
INDOOR AND OUTDOOR FAMILY DOMESTIC USE
AS PER IS 9873 (PART 4):2017

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
4.1	General						
4.1.1	Static strength	6.2.1	IS 9873 (Part 4)	R	One	Each control unit	
4.1.2	Maximum height	4.1.2	IS 9873 (Part 4)	R	One	Each control unit	
4.1.3	Corners and edges	4.1.3	IS 9873 (Part 4)	R	One	Each control unit	
4.1.4	Protruding parts						
4.1.4.1	General	4.1.4.1	IS 9873 (Part 4)	R	One	Each control unit	
4.1.4.2	All protrusions	4.1.4.2, 6.7.1	IS 9873 (Part 4)	R	One	Each control unit	
4.1.4.3	Upright protrusions	4.1.4.3, 6.7.1	IS 9873 (Part 4)	R	One	Each control unit	
4.1.4.4	Motion rides	4.1.4.4, 6.7.2	IS 9873 (Part 4)	R	One	Each control unit	
4.1.4.5	Slides	4.1.4.5,	IS 9873	R	One	Each control	

		6.7.1.2	(Part 4)			unit	
4.1.5	Climbing and swinging ropes, chains and cables	4.1.5	IS 9873 (Part 4)	R	One	Each control unit	
4.1.6	Open tubing	4.1.6	IS 9873 (Part 4)	R	One	Each control unit	
4.2	Barriers	4.2, 6.5.1, 6.3	IS 9873 (Part 4)	R	One	Each control unit	
4.3	Rung ladders, stepladders and stairways	4.3	IS 9873 (Part 4)	R	One	Each control unit	
4.4	Entrapment						
4.4.1	Head and neck entrapment	4.4.1, 6.5.1	IS 9873 (Part 4)	R	One	Each control unit	
4.4.2	Entrapment of clothing and hair	4.4.2, 6.6	IS 9873 (Part 4)	R	One	Each control unit	
4.4.3	Entrapment of feet	4.4.3	IS 9873 (Part 4)	R	One	Each control unit	
4.4.3	Entrapment of fingers	4.4.3	IS 9873 (Part 4)	R	One	Each control unit	
4.5	Stability of activity toys other than slides, swings and toys with crossbeams						
4.5.1	General	4.5.1	IS 9873 (Part 4)	R	One	Each control unit	
4.5.2	Stability of activity toys with a free height of fall of 600 mm or less	4.5.2, 6.1.1	IS 9873 (Part 4)	R	One	Each control unit	
4.5.3	Stability of activity toys with a free height of fall of more than 600 mm	4.5.3, 6.1.2	IS 9873 (Part 4)	R	One	Each control unit	

4.6	Slides	4.5.3, 6.1.2	IS 9873 (Part 4)	R	One	Each control unit	
4.6.1	Stability of slides	4.6.1, 6.1.3	IS 9873 (Part 4)	R	One	Each control unit	
4.6.2	Retaining sides for slides	4.6.2	IS 9873 (Part 4)	R	One	Each control unit	
4.6.3	Starting, sliding and run-out section on slides	4.6.3	IS 9873 (Part 4)	R	One	Each control unit	
4.6.4	Roller slides	4.6.1 to 4.6.3, 4.6.4	IS 9873 (Part 4)	R	One	Each control unit	
4.7	Swings						
4.7.1	Stability of swings and other activity toys with crossbeams	4.7.1.1 to 4.7.1.3, 6.1.4.1, 6.1.4.2	IS 9873 (Part 4)	R	One	Each control unit	
4.7.2	Strength of crossbeams, swing devices, suspension connectors and suspension couplings	6.2.2	IS 9873 (Part 4)	R	One	Each control unit	
4.7.3	Swings intended for children under 36 months	4.7.3.1 to 4.7.3.2, 6.2.2.3. 2, 6.1.5	IS 9873 (Part 4)	R	One	Each control unit	
4.7.4	Impact from swing elements	6.4	IS 9873 (Part 4)	R	One	Each control unit	
4.7.5	Minimum clearance between swing elements, and similar equipment and adjacent	4.7.5	IS 9873 (Part 4)	R	One	Each control unit	

	structures						
4.7.6	Lateral stability of swing elements	4.7.6	IS 9873 (Part 4)	R	One	Each control unit	
4.7.7	Minimum clearance between swing elements and the ground	4.7.7	IS 9873 (Part 4)	R	One	Each control unit	
4.7.8	Suspension connectors and means of suspension	4.7.8, 6.8	IS 9873 (Part 4)	R	One	Each control unit	
4.8	Seesaws	4.8	IS 9873 (Part 4)	R	One	Each control unit	
4.9	Carousels and rocking toys	4.9, 6.1.1, 6.2.1	IS 9873 (Part 4)	R	One	Each control unit	
4.10	Inflatable activity toys						
4.10.1	General	4.10.1	IS 9873 (Part 4)	R	One	Each control unit	
4.10.2	Anchorage	4.10.2	IS 9873 (Part 4)	R	One	Each control unit	
4.10.3	Connection tubes for continuous inflation	4.10.3	IS 9873 (Part 4)	R	One	Each control unit	
4.10.4	Containment	4.10.4.1 to 4.10.4.4, 6.9	IS 9873 (Part 4)	R	One	Each control unit	
4.11	Paddling	4.11.1 to	IS 9873 (Part 4)	R	One	Each control unit	

	pools	4.11.3, 6.10					
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PART 5:
LEVELS OF CONTROL FOR REQUIREMENTS AND TEST METHODS FOR FINGER PAINTS
AS PER IS 9873 (PART 7):2017

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
4.1	General	4.1	IS 9873 (Part 7)	S	One	Each Control Unit	
4.2	Colourants	4.1 4.2.1 4.2.2 Table-1 Table-2 Annex-A Annex-B Annex-C	-do-	S	One	Each consignment of colourant	
4.3	Preservatives	4.3 Annex-A Annex-D	IS 9873 (Part 7)	S	one	Each Control Unit	
4.4	Migration of certain elements	4.4	IS 9873 (Part 3)	S	One	Each Control Unit	
4.5.1	Limits for Primary Aromatic Amines	4.5.1.1 4.5.1.2 Table-1 Table-2 Annex-A Annex-B	IS 9873 (Part 7)	S	one	Each Control Unit	

		Annex-C					
4.5.2	Limits for other impurities	4.5.2 Table-3 Annex-A Annex-E	-do-				
4.6	Taste and Smell	4.6 Table-4 Annex-A	-do-	S	one	Each Control Unit	
4.7	pH Value	4.7 Annex-A	IS 9873 (Part 7) IS 101(Pt.1/ Sec 8)	S	one	Each Control Unit	
4.8	Binding agents, extenders, humectants and surfactants	4.8 4.1 Annex-F	IS 9873 (Part 7)	S	one	Each Control Unit	
4.9	N-Nitrosamines	4.9 Annex-A	IS 9873 (Part 7) EN 71-12	S	one	Each Control Unit	Other test methods may be used provided they are validated for finger paints
4.10	Container	4.10 Annex-A	IS 9873 (Part 7)	S	one	Each Control Unit	
A.11	Labelling Guidelines	Annex-A	-do-	R	Each Package of finger paint	Each Package of finger paint	

PART 6:
LEVELS OF CONTROL FOR CERTAIN PHTHALATES ESTERS IN TOYS AND CHILDREN'S PRODUCTS
AS PER IS 9873 (PART 9):2017

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
3	Maximum acceptable levels of phthalates						
i)	Vinyl in toys or childcare articles		IS 9873 (Part 6)	S	One	Once in a month for each model	
ii)	Vinyl in any part of the toy or childcare article that can be placed in mouth of child under 4 years of age		IS 9873 (Part 6)	S	One	Once in a month for each model	

PART 7:
LEVELS OF CONTROL FOR SAFETY OF ELECTRIC TOYS
AS PER IS 15644:2006

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
8	Power Input of transformer & dual-supply toys	8	IS 15644	R	Onemodel from each series	Once in a day	
9	Heating and abnormal operation	9.1 to 9.8	IS 15644	R	One model from each series	Once in a fortnight	
10	Electric Strength at operating	10	IS 15644	R	Every toy		

	temperature						
11	Moisture resistance	11.2 to 11.2	IS 15644	S	One	Once in six months for each model of electric toys	
12	Electric strength at room temperature	12	IS 15644	S	One	Once in six months for each model of electric toys	
13	Mechanical Strength		IEC 60068-2-75	S	One model from each series	Once in six months	
14	Construction	14.1 to 14.14	IS 15644	S	One	Once in six months for each model of electric toys	
15	Protection of cords and wires	15.1 to 15.2	IS 15644	S	One	Once in six months for each model of electric toys	
16	Components	16.1 to 16.3	IS 15644	S	One	Once in six months for each model of electric toys	Certified components shall be used
17	Screws and Connections	17.1 to 17.2	IS 15644	S	One	Once in six months for each model of electric toys	
18	Clearances and creepage distances	18.1	IS 15644	S	One	Once in six months for each model of electric toys	
19	Resistance to heat and fire	19.1 to 19.2	IS 15644	S	One	Once in six months for each model of electric toys	
20	Radiation, toxicity and similar hazards		IS 9873 (Part 3)/ISO 8124-3	S	One	Once in six months for each model of electric toys	

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or

Government laboratories empaneled by the Bureau. However, the manufacturer shall be required to establish test facilities for only those tests which are applicable to the varieties of toys covered in his licence.

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.

APPENDIX I

Categories and sub-categories of toys

Category A — 32 Sub-categories — Toys for sensorimotor activities — First age

Sub-category	Starting age	Description and examples of appropriate toys
1.	0 months+	Rattles and rings
2.	4 months +	Teethers and teething rings
3.	0 months +	Mobiles, with or without sound – toys with miscellaneous figures and shapes to be mounted above the crib and intended to be out of the reach of the child
4.	2 months +	Crib gyms and playmats – mats with simple play features or activities; may include overhead structures that may have dangling objects intended for the child to reach, grasp or hit
5.	3 months +	Cradle and playpen toys – balls, characters attached to cribs, strollers or enclosures
6.	4 months +	Activity playboards – boards that are attached to the crib with various play features such as miscellaneous coloured shapes, shatterproof mirrors, spinners that rattle, buttons to push, parts that slide on guides, doors that open
7.	3 months +	Squeeze toys – constructed of soft material, with or without internal rattle or noise feature
8.	4 months +	Bath toys – animals, small boats and floating objects
9.	6 months +	Simple books made of textiles or plastic
10.	2 months +	Simple dolls and animals – soft-stuffed dolls and animals made of fabric or plush with or without clothes and fixed details which cannot be removed
11.	8 months +	Roly-poly toys, bop-punching toys and pop-up action toys – figures and animals that rock in a to-and-fro motion, made of rigid or inflatable plastic, jack in the box, push-down spinning toys
12.	8 months +	Books with thick (chunky) pages
13.	5 months +	Simple blocks, nesting toys, and stacking toys
14.	6 months +	Simple ball and track toys
15.	18 months +	Push-pull and rolling toys with cord or handle
16.	6 months +	Simple push/pull rolling toys (without cord or handle) which make sounds and / or have coloured lights – wheeled animals or vehicles
17.	18 months +	Wheelbarrows and other vehicles to fill up and empty
18.	12 months +	Boxes, tubs, buckets, and containers – to store toys
19.	3 months +	Cloth and similar soft material balls and geometric forms
20.	18 months +	Toys for sand and water – pails, small shovels, moulds to play with sand and water
21.	12 months +	Rocking animals and rocker chairs – size suitable for children to ride and rock
22.	12 months +	Push toys with a long handle that provides stability – corn popper, lawn mower
23.	9 months +	Learn to walk toys (walk behind) – wheeled unit with a solid base and handle to support the child in the early stages of walking

24.	12 months +	Self-standing foot to floor riding toys, trikes, without pedals – wheeled toys, vehicles without pedals that are propelled by the power provided by the child’s feet on the ground
25.	8 months +	Soft materials in various shapes for stacking
26.	12 months +	Sliding beads on a fixed loop or shaft – bead maze or frame
27.	12 months +	Shape sorters with miscellaneous shapes and colours – containers and vehicles with holes of different geometrical shapes that only allow parts to pass through the corresponding openings and to fall inside
28.	12 months +	Tool benches, pounding benches – toys simulating carpenter’s benches (strictly pounding toys at this age)
29.	12 months +	Mechanically and electrically operated toys – vehicles, dolls, animal characters etc. made of plastic, metal, fabric or plush, with motions powered by spring or battery
30.	4 months +	Balls or cylinders – clear material with visible contents
31.	0 months +	Musical boxes – toys to be mounted on or near a crib with handle or button for adult activation
32.	6 months +	Simple keyboards or hand-held toys with buttons that activate lights and sounds

Category B — 23 Sub-categories — Toys for physical activities

Sub-category	Starting age	Description and examples of appropriate toys
33.	2 years +	Pedal vehicles, kick scooters, walking bicycles, balance bikes – tricycles, wheeled toys, stable vehicles with pedals, small two wheeled bicycles without pedals powered by the child’s feet
34.	2 years +	Child sized electrical vehicles – battery powered vehicles to be driven by children
35.	3 years +	Toy bicycles – two-wheeled pedal bicycles with or without training/supporting wheels to provide stability
36.	6 years +	Skates, two-wheeled scooters and in-line roller skates
37.	3 years +	Roller skates (except in-line) – roller skates with wheels not positioned in linear (in-line) direction
38.	5 years +	Flying objects – kites, boomerangs, simple airplanes (with rubber band)
39.	3 years +	Soap bubbles – toys with accessories for blowing soap bubbles
40.	3 years +	Bowling, “bocce”-type games, ring toss games – plastic or wooden pin bowling sets, rings for throwing
41.	12 months +	Lightweight balls (plastic)
42.	3 years +	Toy versions of sporting equipment to imitate real sports versions – baseball, basketball, cricket, golf, shuttlecock, tennis, badminton, or beach racquets
43.	4 years +	Simple obstacle and hopscotch-type games
44.	3 years +	Games involving objects thrown at targets
45.	4 years +	Spinning tops without cord
46.	4 years +	Stilt walking (low height), hula hoops, rings to be balanced with a rod
47.	6 years +	Yo-yos and spinning tops with cord

48.	6 years +	Mini golf, cricket, billiards, table football, and other similar games
49.	5 years +	Jump rope
50.	7 years +	Electronic dancing mats – for learning dance steps and for following complex dance routines
51.	3 years +	Activity toys for indoor and outdoor domestic use – toboggans, sleds, swings with open seating, higher slides with more steps, climbers and see-saws
52.	2 years +	Activity toys for indoor or outdoor domestic use – swing with seats that surround the child and short slides with few steps for climbing
53.	3 years +	Aquatic toys – boards, inflatables (animal/character shapes, boats)
54.	2 years +	Wading or paddling pools (with adult supervision)
55.	3 years +	Simple electronic floor mats – for following patterns, making music, learning simple dance routines

Category C – 20 Sub-categories – Toys for intellectual activities

Sub-category	Starting age	Description and examples of appropriate toys
56.	4 years +	Easy puzzles – 20 to 150 interlocking parts
57.	2 years +	Simple puzzles and plain-fitting parts – puzzles with up to 20 large parts that have smooth edges and fit together without interlocking, may have pegs for grasping shapes for fitting parts together on trays
58.	7 years +	Puzzles – 150 to 500 interlocking parts
59.	18 months +	Toy activity panels with fixed parts and turning gears activated by twisting motions or a crank
60.	18 months +	Simple building blocks with overlapping parts that may or may not interlock
61.	2 years +	Simple matching activities – matching activities based on shapes, colours, or pictures
62.	3 years +	Assembly, construction, or building sets – parts with different shapes with diversified fittings and fastenings
63.	2 years +	Building blocks that snap/fit together – large parts with defined pattern for construction/fastening/assembly that may include features or themes
64.	18 months +	Simple mechanical toys – inclined planes to slide objects, toys actuated by paddles, wheels, and other parts, using water and/or sand
65.	7 years +	Toys that involve or demonstrate elementary laws of physics
66.	8 years +	Experimental kits, scientific kits – chemistry sets, human body in detail, organic material kits, crystals, herbariums, microscopes, habitats
67.	4 years +	Question (images) and answer toys and games – picture matching
68.	2 years +	Educational toys – alphabet and simple number learning
69.	3 years +	Observation and reasoning toys and games – memory games, games of chance, board games without strategy
70.	5 years +	Time-learning games – clocks, calendars, and toys for providing notions of hours, days, and months
71.	3 years +	Educational toys – quantity, size, volume, weight, space, and shape notions, learning to tell time
72.	6 years +	Games involving spelling and numbers (usually individual player) – crossword puzzles, word finding, Sudoku
73.	4 years +	Logical and mathematical games – logical sequences, time sequences

74.	6 years +	Games with mathematical operations – including fractions
75.	2 years +	Computers, tablets, and hand-held games – computer devices for play, such as simple questions and answers type or matching games; also may be multi-lingual

Category D — 12 Sub-categories — Toys that reproduce the technical world

Sub-category	Starting age	Description and examples of appropriate toys
76.	5 years +	Functioning walkie-talkies and telephone sets for communication
77.	4 years +	Audio and audiovisual equipment with real functions – portable media, karaokes, and microphones
78.	5 years +	Home appliances with limited real function – sewing machine, popcorn popper, mixer, blender, ice-cream machine, cotton-candy machine, etc. NOTE: Not all functioning appliances may be appropriate at this age, particularly toys connected to mains electricity or with heating functions.
79.	5 years +	Detailed scale and/or more realistic vehicle replicas – include features such as doors, hood (bonnet) and trunk (boot) that open and close
80.	18 months +	Simple vehicle miniatures, without mechanisms – cars, trains, motorcycles, trucks, aircrafts, boats, and ships, and others
81.	3 years +	Mechanical and electrical vehicles which imitate adult versions (level of detail, proportional) – spring or battery-powered cars, trucks, aircraft, boats
82.	4 years +	Complex remote controlled vehicles with multi-direction and functionality – cars, trucks, boats moved by remote control, radio or infrared command, or other
83.	6 years +	Complex mechanical or electrical powered vehicles and machines – construction equipment, dump trucks, hoists/cranes
84.	6 years +	Tracks for electrical cars, trains and accessories – auto tracks, train tracks, sophisticated circuits, with or without accessories, such as platforms, tunnels, obstacles, scenery, vehicles, etc.
85.	3 years +	Non-powered vehicles and machines which imitate adult versions (level of detail, proportional) – trucks, aircraft, boats, simple and light, constructed from plastic or wood which may or may not travel on tracks
86.	3 years +	Simple transformable toys and objects – toys whose parts can be moved to transform them from one character or object into another
87.	3 years +	Robots with simple movements or controls

Category E — 23 Sub-categories — Toys for the development of feelings and empathy

Sub-category	Starting age	Description and examples of appropriate toys
88.	9 months +	Dolls, imaginary animal characters, with no removable components – dolls representing fictional characters, including animal or human forms
89.	2 years +	Lightweight dressed dolls, and dolls to dress (excluding fashion dolls) – moving eyes, articulated arms and legs, rooted hair similar to real hair, animated activities, such as crying, bodily functions, smiling or talking, with easy to dress clothing and accessories for imitating familiar activities (bottle, blanket, etc.)

90.	3 years +	Functioning strollers, cribs, and furniture for dolls which imitate real versions
91.	2 years +	Toy tableware, pots, and feeding accessories for dolls
92.	2 years +	Simple role playing toys – home appliances sized to the child, stoves, kitchen sets
93.	3 years +	Domestic appliances in a children’s size that are more realistic but without actual function – stove, sewing machine, pressing iron, blender, mixer, and other toy appliances
94.	2 years +	Audiovisual equipment that imitates real equipment – plastic versions that imitate radios, CD players, portable media players, telephones, cell phones, karaoke, and microphones which may have limited functions
95.	2 years +	Miniatures of simple characters – Animals, small soldiers, characters made of plastic such as zoo park, super-heroes, fantasy/fictional characters, and historical themes
96.	3 years +	Articulated figures with limited accessories – poseable characters with articulated limbs, moving head and simple mechanisms to simulate heroes, warriors, fictional or imaginative stories and battles
97.	12 months +	Imitation dashboard panels – controls imitating driving activities of cars, boats, airplanes or spaceships
98.	12 months +	Simple costumes and disguises – slip-on costumes without fasteners and with large openings for arms and legs; basic dress-up materials including hats, headscarves or other hair accessories and shoes
99.	2 years +	Costumes, dress up clothing and accessories imitating characters of legends and tales – costumes sized to children with accessories such as masks, helmets, swords
100.	3 years +	Objects imitating home and professional activities – housekeeping objects, carpenter and mechanic tools, physician and nurse instruments, police, firefighter and soldier objects such as helmets, tools, weapons and related accessories
101.	3 years +	Beauty care accessories for dolls – cosmetics, garments, clothing accessories, high-heeled shoes, and small bags
102.	3 years +	Soft or rigid playhouse toys with accessories sized to the children – sales stands, post office
103.	2 years +	Soft and rigid structures in which the child can play – houses, caves, forts, tents, and tunnels
104.	3 years +	Play sets imitating urban and rural areas – commercial establishments, stores, banks, gas stations, parking lots, post offices, schools and classrooms, train and metro stations, hospital, airports, bus stations, zoo parks, Noah’s Ark, fruit and vegetable sales stands, towns, farms, and any other toys that imitate places and regions
105.	2 years +	Books – contain special features such as pop-ups, hidden pictures and dress-me
106.	2 years +	Themed mats for play – mats for playing on the floor with designs imitating towns with streets
107.	4 years +	Cards, stickers, and albums for collection – with play function
108.	3 years +	Doll houses and accessories – houses with multiple rooms and furniture imitating kitchen, bedroom, dining room, etc.
109.	3 years +	Fashion dolls and accessories – articulated fashion dolls and their fashion accessories and complements, such as furniture, personal belongings, sports equipment and others

110.	18 months +	Dolls for imitating care activities (bathing and feeding) – simple dolls imitating babies, without hair or with moulded hair, with painted eyes and without articulated arms and legs
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Category F — 21 Sub-categories — Toys for creative activities

Sub-category	Starting age	Description and examples of appropriate toys
111.	5 years +	Pattern matching activities – geometrical parts or pins, made of wood or plastic, coloured, to form figures or images
112.	4 years +	Stamps with images of animals, characters, designs, alphabet, etc. for printing
113.	3 years +	Toys for creative activities – coloured paper, felt boards, or plastic sticks to form scenes or figures, parts with magnets to form play scenes
114.	3 years +	Body stickers or paints to be applied on the child – cosmetics, tattoos for skin, and stickers for fingernails
115.	6 years +	Crafts such as weaving looms, needle embroidery kits, or other sewing equipment
116.	3 years +	Insertion and tying toys and crafts – threading beads on yarn or string etc.
117.	4 years +	Perforated and cut out toys
118.	8 years +	Engraving and metal work in simple to complex detail
119.	6 years +	Clay and ceramic crafts for modelling
120.	7 years +	Folding crafts – origami
121.	8 years +	Mock-ups, technical models – aircrafts, boats, cars, and motorcycles with parts to assemble
122.	3 years +	Colouring and painting kits – detailed materials, stencils, and templates for artwork; large assortment of coloured crayons, pencils, thin-tipped felt marker pens, and watercolours
123.	2 years +	Colouring and painting materials – simple and limited assortment of materials and templates for artwork; large (easy to grasp) crayons, chalk, broad-tipped felt marker pens, and finger paints
124.	4 years +	Painting sets with water-based paints – with brushes and accessories for paintwork or silk-screen
125.	4 years +	Drawing sets – toys with canvas and mats made of fabric, paper or plastic to draw, colour and/or erase, “magic tracing” type toys, toys for reproduction and imitation of photocopies (pantographs), sets with writing boards, blackboards, or flip charts
126.	3 years +	Modelling (manual) and moulding (with moulds) – manual modelling and moulding with putty or dough moulds, utensils for working with modelling putty
127.	5 years +	Moulding with plaster and modelling sands
128.	12 months +	Musical toys – simple musical instruments such as: pianos, guitars, drums, tambourines, horns, and others
129.	12 months +	Simple play sets – basic structure with three to five figures with limited detail

130.	4 years +	Electronic musical instruments – realistic and functional keyboards, elec- trical guitars, electronic drums
131.	3 years +	Puppets and simple theatres made of wood, plastic or fabric, with fixed eyes, and detachable accessories

Category G — 15 Sub-categories — Toys for social relationships

Sub-category	Starting age	Description and examples of appropriate toys
132.	4 years +	Simple card games – simple card games, card decks for family play
133.	7 years +	Social family games – games for several players, with predefined rules, whether or not requiring previous knowledge of miscellaneous subjects, from medium to difficult knowledge levels
134.	4 years +	Co-operative games – board games for teaching teamwork by emphasizing play rather than competition
135.	5 years +	Games of chance – dice, coin flipping, bingo, roulette
136.	4 years +	Table games with pathways – Table games with pathways to be travelled by using dice or spinners for indicating the number of moves
137.	4 years +	Social games for young children – with several players, involving a simple degree of difficulty
138.	5 years +	Ability and skill games – games for balancing parts, capturing, hitting the target, among others that require ability, and fast reaction
139.	4 years +	Electronic ability and skill games – videogames, hand-held videogames, toys that simulate real life by a virtual character (avatar)
140.	5 years +	Simple strategy and reasoning games – checkers, trading card games, dominoes, and similar
141.	6 years +	Games for strategy and reasoning – chess, table games that require strategy
142.	9 years +	Simulation, conquering, and role-playing games – RPG type and simulation, conquering and acquisition games, where the players must make decisions by reviewing several situations and using individual strategies for conquering territories, acquiring assets or real estate properties, building towns, deciding on new positions for characters so as to transform the story
143.	7 years +	General knowledge games – games involving knowledge on miscellaneous subjects
144.	6 years +	Number and letter games (usually multiple players) – games requiring the creation of or the discovery of hidden words or numbers
145.	7 years +	Magic kits
146.	6 years +	Game collections – boxes with miscellaneous games

APPENDIX II

FORMAT FOR DECLARATION BY MANUFACTURER

Date: _____

_____ Branch Office
Bureau of Indian Standards
ManakBhavan
9, Bahadur Shah Zafar Marg
New Delhi-110002

Subject: Declaration For Application For Grant of Licence/Change in Scope of Licence for Safety Of Toys

Dear Sir,

With reference to my application for grant of licence to use Grant of Licence/Change in Scope of Licence for Safety of Toys as per Indian Standards under Scheme I of Schedule II of BIS (Conformity Assessment) Regulations, 2018, I hereby declare the following:

- I am applying for grant of licence for the following toys:

Type	Description of Toy	Category	Sub-category	Input source (for electric toy) \$	Model No.	Starting Age	Brand Name	Series No.	Applicable Primary Indian Standard	Applicable Secondary Indian Standard
<i>NonElectric</i>	<i>Rattle</i>	<i>Category A- Toys for sensorimotor activities – First age</i>	<i>Rattles and rings</i>	<i>NA</i>	<i>RT-1</i>	<i>0 months+</i>	<i>RAT1000</i>	<i>S01</i>	<i>IS 9873 Part 1</i>	<i>IS 9873 Part 2, 3, and 9</i>
	<i>Ring</i>	<i>-do-</i>	<i>-do-</i>		<i>RN-1</i>	<i>0 months+</i>	<i>RIN1000</i>			

*Italicized details are for illustration only

\$ Input source for electric toy may be [Battery operated/transformer/dual supply]

- I declare that the above models in the same series are of similar design, made from the same materials and covered under a single sub-category. Design/Photographs and list of materials of the above models are enclosed. However, as per the sampling guidelines, I am requesting the lab to test samples pertaining to only model number(s): _____ .**(For Grant of Licence)**

OR

- I declare that the above models belong to a new series no. _____ which is not already covered in the scope of my licence. However the above models in the same new series are of similar design, made from the same materials and covered under a single sub-category. Design/Photographs and list of materials of the above models are enclosed. However, as per the series guidelines, I have requested the lab to test samples pertaining to only model number(s): _____. **(For Change in Scope of Licence)**

(Strike out whichever is not applicable)

- A copy of my existing licence with all endorsements is enclosed. **(For Change in Scope of Licence)**
- I declare that I have read and understood the provisions of the BIS Guidelines for Certification of Toys as per Scheme I of Schedule II of BIS (Conformity Assessment) Regulations, 2018 and agree to abide by the same.
- I declare that all details and information provided by me above and in my application are true to the best of my knowledge. In case of any discrepancies found in the declared information, I shall be liable for suitable action.

Regards

Signature of Firm's CEO/Director/Authorized Representative

Name/Designation:_____

Firm's Name/Address:_____

PART II OF II: ELECTRIC TOYS – PRIMARY STANDARD: IS 15644

Status of plant- Large Scale

1. IS 9873 (Parts 1,2,3,4,7,9) and IS 15644 Product Safety of Toys (Type: Electric Toys)

2. Installed capacity of the Plant:

a) Production:

i) Annual Production Capacity : 6,00,00,000

ii) Value: Rs _____

iii) Cost of production: Rs 400 per piece

b)

3. Testing charges for complete testing per sample:

iii) BIS No labs _____

i) If BIS testing facilities are incomplete or not available, the average of prevailing testing charges of OSLs Rs 50,000/- Rounded up from Rs 49674/- (See Notes for basis of calculation of testing charges)

4. Cost of Market Sample:

a) Quantity per Market Sample 1 _____

b) *Cost- Rs 800 per sample of 1 (Qty)

5. ESTIMATED EXPENDITURE IN OPERATING LICENCE PER YEAR OF ONE OPERATIVE PERIOD.

ITEM OF EXPENDITURE	NO.	RATE	AMOUNT .
a) TESTING CHARGES			
i) **FACTORY SAMPLES	One	50000	50000
ii) MARKET SAMPLES	Two	50000	100000
b) COST OF MARKET SAMPLES	Two	800	1600
c) DIRECT COST OF OVERHEAD			37000
TOTAL:		Rs. _____	1,89,000 (Rounded up from Rs 1,88,600)

6. Final MMF proposal

i) LS Rs. 1,89,000

ii) MSME (80% of large scale) Rs. 1,52,000 (Rounded up from 1,51,200)

7. Calculation for unit rate,

v) Probable Unit Rate (MMF of LS ÷ Production capacity)

vi) $\frac{189000}{6,00,00,000} = \text{Rs } 0.003$ per piece

vii) 0.01% of cost of production – 0.04

viii) 0.2% of cost of production- 0.8

8. FINAL UNIT RATE: Unit - 1 piece

Slab-1 Rs. 0.04 per unit for ALL units,

Slab-2 Rs. _____ per unit for next _____ units,

Slab-3 Rs. _____ per unit for remaining _____ units.

Notes

1. It has been decided that 1 FS and 2 MS shall be drawn for toys and Marking Fee shall be framed accordingly.
2. Provisional data has been taken for cost of production, price, production volume etc. Basis for calculation of testing charges is given in Tables 1 and 2 below

TABLE 1 - TESTING CHARGES OF LABS WITH COMPLETE TESTING FACILITIES FOR TOYS							
Lab	IS 9873 (Part 1)	IS 9873 (Part 2)	IS 9873 (Part 3)	IS 9873 (Part 4)	IS 9873 (Part 7)	IS 9873 (Part 9)	IS 15644 (partial)
Planet Analysis Pvt. Ltd., Kanpur	7300			4600			
Alpha Test House, Haryana		5000	3000			8000	
Bharat Test House, Haryana		3000					
Bureau Veritas Consumer Products Services, Noida		1760	8000				
Choksi Labs, Indore		4000	3085				
Idma Laboratories, Haryana		1100	3200				
Envirocare Labs, Maharashtra			5500				
HI PHYSIX, Pune							65000
Reliable Analytical Labs, Thane	5300	2000	4000	20000	10000	5000	15000
Average	6300	2810	4464	4600	10000	6500	15000

Footnote: Lower Testing charges for IS 9873 (Part 4) and IS 15644 have been considered since the higher charges appear to be exorbitant

Table 2 – Average Testing Charges		
Type	Average testing charges	IS Applicable
Non Electric Toy	34,674	IS 9873 Parts 1,2,3,4,7,9
Electric Toy	49,674	IS 9873 Parts 1,2,3,4,7,9 and IS 15644