

उत्पाद मानुयल खिलौनों की सुरक्षा IS 9873 (Parts 1,2,3,4,7,9) and IS 15644 के अनुसार

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

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम की स्कीम-। के तहत यह उत्पाद मानुयल प्रमाणीकरण के प्रचलन मे रीति और पारदर्शिता के सुसंगता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेन्स धारियों द्वारा संदर्भ सामग्री के रूप मे उपयोग किया जाएगा। बीआईएस लाइसेन्स/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है।

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.

1.उत्पाद/Product

| SI. No. | IS No. | शीर्षक/ Title | संशोधनसंख्या/ 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) : 2020 | 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. | and two ma | नमुनाकरण दिशानिर्देश/Sampling Guidelines: (In a single operative year, one factory sample and two market samples of electric and non-electric toys per license shall be drawn for testing in third party lab) | | | | | | | | | |
|----|--|---|--|--------------------------|---|---|---------------------------------|------------------------------|----------------|-----------------------------------|-------------------------------------|
| a) | कच्चा माल/ | Raw mate | rial | : | inf no | materials s estation. Th rmal correct 3 of IS 9873 | e mate ed visio | rials shall l on rather t | be assess | sed visually | - |
| b) | समूहिकरण | दिशानिर्देश | | : | कृपर | याAnnex-Aदे | खें | | | | |
| | Grouping g | uidelines | | | | ease refer A | | | | | |
| c) | नमूने का प | रिमाण | | | | -10 pieces. | | | • | | • |
| -, | /Sample Si | ze | | : | su | rtification of fficient qual 5. (Samples | ntity re | quired for | complete | e testing is | |
| 3. | परीक्षण उपव | करणो की स | ाची | : ; | कपर | याAnnex-Bदे | खें | | | | |
| | | st Equipme | ~ | | | ease refer A | | -В | | | |
| 4. | | निरीक्षण व परीक्षण स्कीम Scheme of Inspection | | : | कृपयाAnnex-Cदेखें <i>Please refer ANNEX -C</i> | | | | | | |
| 5. | | संभावित प | | | ssil | ole tests in a | a day : / | All possible | e applicat | ole tests as | per IS |
| 6. | लाइसेन्स व | हा कार्यक्षेत्र | /Scop | be o | f th | e Licence : | | | | | |
| | | granted for Indian Sta | | | | Standard M n below * | lark on | toys for sa | afety requ | iirements a | s per the |
| | Туре | Descrip tion of toy | Cate No. Nan | and | | Sub- category No. and Name | Input source for electric toy** | Starting Age | Series No.# | Applicable primary standard | Applicable Secondary standard |
| | Non electric | Rattle | Cate A- Toys sens or activ First | s for sorin vities | not | Subcateg ory 1 - Rattles and rings | NA | 0 months + | S01 | IS 9873 Part 1 | IS 9873 Part 2, 3 and 9 |
| | | Ring | -do- | | | -do- | NA | -do- | | | |
| | *Details in the table are given for illustration. Also see sampling guidelines at Annex-A ** Input source for electric toys - battery operated, transformer operated or dual supply #Details of models contained in each series shall be declared by manufacturer to BIS separately and BIS shall endorse the series wise details of models separately in the licence document as Annexure (See Annex-A for details) | | | | | ipply BIS | | | | | |

ANNEX A

GROUPING/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:

| SI. No. | Туре | 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 |

- 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 (Part8):2019).
- 3. For the purpose of certification, all varieties of toys of similar design₁, made from the same materials₂ and covered under a single sub-category, shall be considered as a <u>series (group of varieties)</u>.
- 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):

| SI. No. | Туре | 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 <u>series</u> i.e.of same type, similar design ₁ , made from the same materials ₂ 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 |

| Oct 2022 |
|---|
| sub-groups according to input source: Battery operated Transformertoys Dual-supplytoys |
| Accordingly the following shall apply: — 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, 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 <u>series (as per SI No 1)</u> to be drawn and tested for considering GOL orCSOL. |
| — To cover all the models of Transformer toys, one model of transformer toy from among all models of Transformer toys 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 <u>series (as per SI No</u> <u>1)</u> to be drawn and tested for considering GOL or CSOL. |
| — 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 <u>series (as per SI No</u> <u>1)</u> to be drawn and tested for considering GOL or CSOL. |
| |

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. For electric toys, input source, mains layout etc as given in the table above will also constitute design parameters. 2⁻Same materials pertain to material of the same nature (i.e. LLDPE or PVC or HDPE or Cotton Fabric etc.).

5. APPLICATION FOR GRANT OF LICENCE

For manufacturers applying for grant of licence, a declaration/request as per format at **APPENDIX II** shall be submitted to BIS by the manufacturer through Manakonline, based on which the application shall be assessed and the scope of licence shall be defined by BIS.

6. APPLICATION FOR CHANGE IN SCOPE OF LICENCE

For manufacturers applying for change in scope of licence i.e. addition of a new series in the scope of their licence, a declaration/request as per format at **APPENDIX III** shall be submitted to BIS by the manufacturer through Manakonline, based on which the application shall be assessed and the scope of licence shall be revised by BIS

7. APPLICATION FOR ADDITION OF NEW MODELS IN THE SERIES ALREADY COVERED IN THE SCOPE OF LICENCE

Whenever a licensee intends to add new model(s) to a series already covered in the scope of licence, The declaration/request shall be submitted by the manufacturer as per **APPENDIX IV** through Manakonline and the information shall be noted by BIS and these additional models endorsed in the licence document by revising the Annexure to the licence document containing the series wise list of models. After submission of the information to BIS Branch Office through Manakonline*, the licensee may use the standard mark on toys with respect to such models without waiting for BIS to endorse the models in the licence. (Licensee shall be able to produce documentary proof of having submitted this information to BIS).

However, in case any discrepancy is observed post-facto due to which it is viewed that the models are not to be endorsed in the scope (e.g. if the models do not belong to the series as declared), Head of BIS Branch Office concerned, may, after giving the licensee an opportunity to explain, direct the licensee to cease marking on the toys of the relevant models, or in case the toys are already marked and dispatched, issue directions for product recall.

- 8. However, if any variety of toy 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 varieties, the above <u>sampling guidelines</u> <u>shall not apply</u> and each such variety shall be required to be got tested from third party lab for covering them in the scope of licence.
- 9. With respect to the "Starting Age" mentioned in the grouping, the manufacturer is free to specify an age higher than the starting age specified. However, scope of licence should clearly mention the starting age applicable.
- 10. The Scope of Licence shall be restricted based on the manufacturing and testing capabilities of the manufacturer.
- 11. During the operation of the Licence, BO shall ensure that all the varieties covered in the Licence are tested in rotation and **samples of toys of different colours are tested in rotation,** to the extent possible..

<u>ANNEX B</u>

List of Test Equipment

Major test equipment required to test as per the Indian Standard

| SI. No. | Tests used in w | ith Claus | e Reference | Test Equipment |
|------------|--|-----------|-----------------------------|---|
| NO. | 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 μ m with plane upper and lower measuring surfaces having a diameter of (6 ± 1) mm that are parallel to within 5 μ m 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 $(25 \pm$ |

| 11 | Stability and | 5.12 | -do- | 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 $(1 \pm 0, 1)$ kg, conditioning chamber to maintain samples at a temperature of (25± 3) °C and at a relative humidity of 50 % to 65%. smooth surfaces inclined 10+0.5°/-0.0° and |
|----|--|------|------|--|
| | overload tests | • | | 15+0.5°/-0.0°, $10\pm1°$ 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- | 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 |
| | | | | 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 shallbe approximately 15 s. The 7 000 cycles shall be completed within a time period of 72 h. |
| 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 ± 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 | 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 cm3 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 positiveor 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- | 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 0,3m2. |
| | | | | 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. |
| | | | | Dynamic strength test for wheeled ride-on toys other than toy scooters: Loads and Drive |
| | | | | Torque test: torque gauge or torque wrench tp apply torque of $(0,45 \pm 0,02)$ N·m |
| | | | | Tension and Compressiontest: Tension and Compression Test Apparatus with |

| | | | | Leading device environ 1, 20, 10 |
|----|---|------|------|--|
| | | | | loading device equipped with a self- indicating gauge or other appropriate means to measure force applied to accuracy of 1 N |
| | _ | | | Flexure test: Apparatus as per 5.24.8 |
| 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 ± 0.5) mm and thickness of (10 ± 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 | 5.33 | -do- | Impact test for magnets apparatus with |

| | magnets | | | plane horizontal steel surface and arrangement to drop a metallic weight with a mass of (1 ± 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 | 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. |
| | 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 | | | IS9873 (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 | Reagents Hydrochloric acid solution, <i>c</i>(HCI) = (0,07 ± 0,005)mol/l. Hydrochloric acid solution, <i>c</i>(HCI) = (0,14 ± 0,010)mol/l. Hydrochloric acid solution, <i>c</i>(HCI) = approximately 1mol/l. Hydrochloric acid solution, <i>c</i>(HCI) = approximately 2mol/l. Hydrochloric acid solution, <i>c</i>(HCI) = approximately 2mol/l. Hydrochloric acid solution, <i>c</i>(HCI) = approximately 6mol/l. General purpose reagent <i>n</i>-heptane, (C7H16); 99%. Water of at least grade 3 purity, in accordance with ISO3696. Apparatus Normal laboratory apparatusand 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 ± 0,2 pH units. Cross-contamination shall beprevented. Membrane filter, of poresize 0,45μm. Centrifuge, capable ofcentrifuging at (5 000 ±500) Means of agitating the mixture, at a temperature of (37 ± 2)°C. Series of containers, of gross volume between 1,6 × and 5,0 × that of the volume of hydrochloric acidextractant Analytical Weighing balance Instrumentation 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 | IS9873 (Part 4):2017 | - Loads of mass $(50 \pm 0,5)$ kg and dimensions as given in Figure19. - Loads of mass $(25 \pm 0,2)$ kg and dimensions as given in Figure19. - Inclined plane of $(10 \pm 1)^{\circ}$. |
| 41 | Stability of activity toys with a free height of fall of more than 600 mm | 6.1.2 | -do- | Suitable device(s) to apply ahorizontal force of (120 ± 5)N. Stops, ifneeded. |
| 42 | Stability of slides | 6.1.3 | -do- | Loads of mass (50 ± 2) kg and dimensions as given in Figure19. Inclined plane of (10 ±1)°. |
| | Stability of swings and other activity toys with crossbeams more than 1 200 mm above the ground | 6.1.4.1 | -do- | Suitable device(s) to apply ahorizontal force from 125 N to (2 000 ± 20) N according to Table4. Stops, ifneeded. |
| 44 | Stability of swings and other activity toys with crossbeams 1 200 mm or less above the ground | 6.1.4.2 | -do- | Loads of mass (25 ± 0,2) kg and dimensions as given in Figure19. 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- | - Load(s) of mass $(50 \pm 0,5)$ kg and dimensions as given in Figure19. - Load(s) of mass $(25 \pm 0,2)$ kgand dimensions as given in Figure 19. |
| 47 | Strength of swings and similar toys | 6.2.2 | -do- | a) For swings, except those covered byb): a load with a mass of (200 ± 10)kg; loads with a mass of (50 ± 2)kg. b) For swings intended for children under 36 months and with suspension points 1 200 mm or less above the base level: a load with a mass of (66 ± 3) kg. |
| 48 | Dynamic strength of barriers and handrails | 6.3 | -do- | A pad with a length of 200 mm and a height of 50 mm minimum made of textile, leather or similar material and stuffed with suitable material and with a shape thatwill enable it to be attached to the top of a barrier orhandrail. 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 mm ± 3 mm, and a total mass (including accelerometer) of (4,6 ± 0,05) 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 Figure24. Accelerometer, mounted at the centreof 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 ± 500 g with an accuracy of ± 0,1 g and with a frequency range from 0 Hz to 10 000Hz. 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 ± 0,5) mm and an outer major dimension of (47 ± 2) mm. The chains shall be of equal length suspended from pivots 600mm 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) |
| | 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 polytetrafluroethylene (PTFE), which have been found to be suitablematerials; — chain, as shown in Figure 31c); — collar, detachable and with goodslip; — pole. |
| 52 | Test for protrusions | 6.7 | -do- | Test gauges made of any suitable rigid material and with dimensions as given in Figure 34. 50 (All Protrusions) A test gauge made of any suitable rigid material and with dimensions as given in Figure 36. (Protrusions in motion rides) |
| 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- | Loading pad, made of a rigid material with a diameter of 400 mm. Additional loads, consisting of sandbags sufficient to make up the test loads as specified in Table 6. |
| 55 | Static load test for paddling pools with non- inflatablewalls | 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 | Reagents: Methanol., Acetonitrile, <i>tert</i>-Butyl methyl ether, Citrate/sodium hydroxide buffer, Sodium dithionite solution, Porous,granular kieselguhr∥SPEcolumn, 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 aromaticamines, Calibration solutions, Internal standard solution, Recovery solution of aromaticamines Apparatus Reaction vessel (50 ml conical flask)of temperature-resistant glass with tight- fittingcap. Water bath, capable of maintaining a temperature of (37 ± 2) °C and (70 ± 2) °C. Column made from glass or polypropylene, 25 mm to 30 mm internal diameter, 140 mmto 150 mm length, filled with about 20g porous, granular kieselguhr SPE material, fitted on theoutlet with a glass fibre filter (or commercial SPEcolumn)3). Vacuum rotary evaporator or equivalent low temperature sample concentrationsystem. Pipettes 10 ml, 5 ml, 2 ml, 1ml. Instrumentation (The analysis shall be performed using equipment selected from the following list) HPLC with gradient-elution andAD. GC withMS. |
|---|-------|------|---|
| 57 Test Methods For Finger Paints - Limits for other impurities | 4.5.2 | -do- | Standards, reagents andsolvents Hexane, analyticalgrade. Cyclohexane, analyticalgrade. Acetone, analyticalgrade. trimethylpentane, analyticalgrade. Toluene, analyticalgrade. Cyclohexane (E.2.2): acetone (E.2.3) 1:1 v/vmixture. Toluene (E.2.5):acetone (E.2.3) 2:1 v/v mixture. Anhydrous sodium sulfate. Hexachlorobenzene (HCB), CASNo |

| 118-74-1, > 99 %. |
|---|
| Commercial PCB standard mixtureor |
| individual PCB congeners |
| – 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; |
| – 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 %. |
| Internalstandards. |
| • HCB 13C6, CAS No:118-74-1. |
| PCB congener 10113C12, |
| CAS No: 37680-73-2. |
| PCB congener 13813C12, |
| CAS No: 35065-28-2. |
| _B [α]P d12, CAS No:63466-71- |
| 7. |
| Primary standardsolutions. |
| Calibrationstandards. |
| |
| Apparatus |
| Amber colouredglassbottle |
| approximately 40 ml volume with tight- |
| fitting screw cap. |
| Analytical balance, capable ofweighing |
| to 4 decimal places. |
| Glass microfibre thimble, 33mm |
| diameter x 100 mm. |
| Soxhlet extractor with siphon cupto |
| hold a 33 mm diameter x 100 mm |
| thimble. |
| Water cooledcondenser. |
| |

| | | 250 ml round bottomflask. Spark proof heatingmantle. Sample concentration systemwith nitrogen gasstream. Solid phase extraction column made from either glass or polypropylene, 25 mm to 30mm internal diameter, 140 mm to 150 mm length, filled with about 20 g porous, granular kieselguhr SPEmaterial(or commercial SPEcolumn). Instrumentation A gas chromatograph-mass spectrometricsystem Analytical capillarycolumn |
|---|----------------------------|--|
| 58 Determination Of Certain Phthalate Esters | IS9873 (Part 9):2017 | Reagents Dichloromethane, CAS No. 75-09- 2, analytical grade or higher, free of phthalate esters. 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. |
| | | Apparatus Normal laboratoryglassware. Gas chromatography-mass spectrometer (GC-MS), with a capillary column coupled to amass Spectrometric detector (electron ionization, El) used for theanalysis. See7.4.1. Soxhlet extractor, see FigureB.1. Solvent extractor, see FigureB.2. Extraction thimble, cellulose. Cotton wool, for extractionthimble. Analytical balance, capable of measuring to an accuracy of 0,001 g. Concentration apparatus, for example, a rotaryevaporator. 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 nominalcapacity. 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 | Test corner consisting of two walls at right angles and a floor made of dull black-painted plywood having a thickness of approximately20mm. 4 layers of Bleached cotton gauze having dimensions of 500mm x 500 mm anda specific mass of 40 g/m²± 8g/m². Fine-wire thermocouples and temperature recorder for determination of rise oftemperature Straight steel pin of length 25mm minhaving a diameter of 0,5 mm, or rod of length 100 mm min having a diameter of 1.0mm powersupply Apparatus for needle flame test (AnnexB) Apparatus for low powercircuit determination |
| 60 | Electric strength at operating temperature | 10 | -do- | powersupply Voltmeter, ammeter, oscilloscope |
| 61 | Moisture resistance | 11 | -do- | Test apparatus as per 14.2.4of IS/IEC60529 Humidity cabinet <i>capableof</i> <i>maintaining relative humidity of</i> (93± 3) %. |
| 62 | Electric strength at room temperature | 12 | -do- | powersupply Voltmeter, ammeter, oscilloscope |
| | Mechanical strength | 13 | -do- | Impact Hammer test apparatusas per test Ehb of IS 9000 (Pt 7/ Sec 7)/ IEC 60068-2-75. |
| 64 | Construction | 14 | -do- | powersupply Voltmeter Steel surface, cylindrical metallic 1 kg mass of dia80mm Pull force gauge up to 90N |

| | | | | Calipers, measuring scale/tape |
|----|---|----|------|--|
| 65 | Protection of cords and wires | 15 | -do- | Calipers, measuring scale/tape |
| 66 | Components | 16 | -do- | Based on TC/Certification |
| 67 | Screws and connections | 17 | -do- | Tools such as spanners, wrenches and pliers, torqueguage |
| 68 | Clearances and creepage distances | 18 | -do- | Calipers, gauges, measuring scale/tape |
| 69 | Resistance to heat and fire | 19 | -do- | Apparatus for ball pressure test of IS/IEC60695-10-2. Apparatus for glow-wire test of IS/IEC60695-2-11, Apparatus for needle flame test (AnnexB) |
| 70 | Radiation, toxicity and similar hazards | 20 | -do- | • As per IS 9873 (Part3) |
| 71 | Power Input | 8 | -do- | Voltmeter,Wattmeter |
| 72 | Marking | 7 | -do- | Petroleum spirit, water |

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

<u>ANNEX C</u>

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 and implement 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 and/or on the toy itself legibly and indelibly, provided always that material so marked conform to requirements of the specification. In case the Standard Mark cannot be incorporated on the product or packaging, it may be provided as an integral part of the package containing the toy in a manner accessible and evident to the consumer.

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 model number and the following shall be incorporated on eachpackage:

i) BIS Licence NumberCM/L and

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 2above.

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

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

| | (1) | | | (2) | (3) | | | |
|-------|---|---|---|------------------|-------------------|------------------------------------|--------------------|--|
| | Test Details | | | | Levels of Control | | | |
| CI. | Requirement | Clause Referenc e R: requirem (or) S: Su contracti | equipment requiremen t R: required (or) S: Sub- contracting permitted | No. of Sample | Frequency | Remarks | | |
| 4.3.1 | Material quality | 4.3.1 | IS9873 (Part 1) | R | One | Each consignment of material | | |
| 4.3.2 | Expanding materials | 5.21 | -do- | R | -do- | -do- | See notes below | |
| 4.4 | Small parts | 5.24, 5.2 | IS9873 (Part1) | R | one | Each Control Unit | -do- | |
| 4.5 | Shape, size and strength of certaintoys | | | | | | -do- | |
| 4.5.1 | Squeeze toys, rattles, fasteners, and certain other toys and components of toys | 5.3 | IS9873 (Part1) | R | one | Each Control Unit | -do- | |
| 4.5.2 | Small balls | 5.4, 5.24 | -do- | R | one | Each Control Unit | -do- | |
| 4.5.3 | Pompoms | 5.24.6.3 | -do- | R | one | Each Control Unit | -do- | |
| 4.5.4 | Pre-school play figures | 5.6 | -do- | R | one | Each Control Unit | -do- | |
| 4.5.5 | Toy pacifiers | 4.5.5 | -do- | R | one | Each Control Unit | -do- | |
| 4.5.6 | Balloons | 4.5.6 | -do- | R | one | Each Control Unit | -do- | |

| | | | | | | | Oct 2022 |
|-------|--|--|-------------------|---|-----|----------------------|----------|
| 4.5.7 | Marbles | 5.24, 4.5.7 | -do- | R | one | Each Control Unit | -do- |
| 4.5.8 | Hemispheric- shaped toys | 5.24, 4.5.8 | -do- | R | one | Each Control Unit | -do- |
| 4.6 | Edges | | | | | | |
| 4.6.1 | Accessible sharp edges of glass or metal | 5.8, 4.6.1 | IS9873 (Part1) | R | one | Each Control Unit | -do- |
| 4.6.2 | Functional sharp edges | 4.6.2 | -do- | R | one | Each Control Unit | -do- |
| 4.6.3 | Edges on metal toys | 5.8, 4.6.2 | -do- | R | one | Each Control Unit | -do- |
| 4.6.4 | Edges on moulded toys | 4.6.4 | -do- | R | one | Each Control Unit | -do- |
| 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 | -do- |
| 4.7 | Points | | | | | | |
| 4.7.1 | Accessible sharp points | 5.9 | IS9873 (Part1) | R | one | Each Control Unit | -do- |
| 4.7.2 | Functional sharp points | 4.7.2 | -do- | R | one | Each Control Unit | -do- |
| 4.7.3 | Wooden toys | 4.7.3 | -do- | R | one | Each Control Unit | -do- |
| 4.8 | Projections | 4.8 | -do- | R | one | Each Control Unit | -do- |
| 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 | -do- |
| 4.10 | Plastic film or plastic bags in packaging and in toys | 4.10, 5.10 | -do- | R | one | Each Control Unit | -do- |

| | | | | | | | Oct 2022 |
|--------|--|---|--------------------|---|-----|----------------------|-----------------------------------|
| 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 | -do- |
| 4.12 | Folding mechanisms | | | | | | |
| 4.12.1 | Toy pushchairs, perambulators and similar toys | 4.12.1, 5.22.2 | IS9873 (Part1) | R | one | Each Control Unit | -do- |
| 4.12.2 | Other toys with folding mechanisms | 4.12.2, 5.22.3 | -do- | R | one | Each Control Unit | -do- |
| 4.12.3 | Hinge-line clearance | 4.12.3 | -do- | R | one | Each Control Unit | -do- |
| 4.13 | Holes, clearances and accessibility of mechanisms | | | | | | |
| 4.13.1 | Circular holes in rigid materials | 4.13.1 | IS9873 (Part 1) | R | one | Each Control Unit | -do- |
| 4.13.2 | Accessible clearances for movable ,segments | 4.13.2 | -do- | R | one | Each Control Unit | -do- (see note (iii) below) |
| 4.13.3 | Chains or belts in ride-on toys | 4.13.3, 5 .7 | -do- | R | one | Each Control Unit | -do- |
| 4.13.4 | Other driving mechanisms | 4.13.4 | -do- | R | one | Each Control Unit | -do- |
| 4.13.5 | Winding keys | 4.13.5 | -do- | R | one | Each Control Unit | -do- |
| 4.14 | Springs | 4.14 | -do- | R | one | Each Control Unit | -do- |
| 4.15 | Stability and overload requirements | 4.15.1.1 to 4.15.1.3 ,5.12.2, 5.12.3, | -do- | R | one | Each Control Unit | -do- |

| | - | ~ | • | - | - | |
|--------------|-----|---|---|----|----|--|
| \mathbf{O} | rt. | 2 | 1 | 12 |)) | |

| | | _ | 1 | • | | r | Oct 2022 |
|--------|--|---|-------------------|---|-----|----------------------|----------|
| | | 5.12.4, 5.12.5, 5.12.6 | | | | | |
| 4.16 | Enclosures | | | | | | |
| 4.16.1 | Ventilation | 4.16.1 | IS9873 (Part1) | R | one | Each Control Unit | -do- |
| 4.16.2 | Closures | 4.16.2, 5.13.1, 5.13.2.1 , 5.13.2.2 | -do- | R | one | Each Control Unit | -do- |
| 4.16.3 | Toys that enclose the head | 4.16.3 | -do- | R | one | Each Control Unit | -do- |
| 4.17 | Simulated protective equipment, such as helmets, hats and goggles | 4.17, 5.14 | -do- | R | one | Each Control Unit | -do- |
| 4.18 | Projectile toys | 4.18.1 to 4.18.4, 5.15.1, 5.15.2, 5.35, 5.36, 5.37 | -do- | R | one | Each Control Unit | -do- |
| 4.19 | Rotors and propellers | 4.19, 5.35 | -do- | R | one | Each Control Unit | -do- |
| 4.20 | Aquatic toys | 4.20 | -do- | R | one | Each Control Unit | -do- |
| 4.21 | Braking | 4.21, 5.16.1, 5.16.2 | -do- | R | one | Each Control Unit | -do- |
| 4.22 | Toy bicycles | 4.22.1 to 4.22.3 | -do- | R | one | Each Control Unit | -do- |
| 4.23 | Speed limitation of electrically driven ride-on toys | 4.23, 5.17 | -do- | R | one | Each Control Unit | -do- |
| | | | | | | | |

PM/ 9873/9 Oct 2022

| | | | | | | | Oct 2022 |
|------|--|--|------|---|-----|----------------------|----------|
| 4.24 | Toys containing a heat source | 4.24, 5.1 8 | -do- | R | one | Each Control Unit | -do- |
| 4.25 | Liquid-filled toys | 4.25, 5.19 | -do- | R | one | Each Control Unit | -do- |
| 4.26 | Mouth- actuated toys | 4.26, 5.2, 5.24.5, 5.24.6.1 ,5.20 | -do- | R | one | Each Control Unit | -do- |
| 4.27 | Toy roller skates, toy inline skates and toy skateboards | 4.27 | -do- | R | one | Each Control Unit | -do- |
| 4.28 | Percussion caps specifically designed for use in toys | 4.28 | -do- | R | one | Each Control Unit | -do- |
| 4.29 | Acoustic requirements | 5.25 | -do- | S | one | Each month | -do- |
| 4.30 | Toy scooters | 4.30.1 to 4.30.8, 5.26, 5.27, 5.285.2 9, 5.12.2, 5.30 | -do- | R | one | Each Control Unit | -do- |
| 4.31 | Magnets and magnetic components | 5.31, 5.32, 5.2, 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 | -do- |
| 4.32 | Yo-yo balls | 5.38.1, 5.38.2 | -do- | R | one | Each Control Unit | -do- |

| | | | | | | | Oct 2022 |
|------|--|---------------|------|---|-----|----------------------|-----------------|
| 4.33 | Straps intended to be worn fully or partially around the neck | 5.11.3 | -do- | R | one | Each Control Unit | -do- |
| 4.34 | Sledges and toboggans with cords for pulling | 4.34 | -do- | R | one | Each Control Unit | -do- |
| 4.35 | Jaw entrapment in handles and steering wheels | 4.35, 5.39 | -do- | R | one | Each Control Unit | -do- |

Notes for IS 9873 (Part 1)

- i. **Normaluse:**Alltoysshallbetestedinaccordancewiththerelevanttestsin5.1(general)to 5.22 (folding orsliding mechanisms) in order to ensure that risks as a result of normal wear and/or deterioration areminimized.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).
- iii. Accessible clearances for movable segments as per Cl. 4.13.2 is applicable only for ride on toys where the potential for crushing of fingers or other appendages exists and not for smaller toys which prima-facie do not present risk of crushing fingers and appendages
- iv. Expanding Materials as per Cl. 4.3.2 test applies only to toys made from materials which absorb water and therefore poses a risk of choking of a child swallows the toy or part thereof and it expands in the airway.
- v. In case it is not practically possible to perform **Compression test as per Cl 5.24.7** due to the design/size of the toy, it should be concluded that this test is not applicable for such toys.

| <u>PART B:</u> |
|---|
| LEVELS OF CONTROL FOR SAFETY ASPECTS RELATED TO |
| FLAMMABILITYAS PER IS 9873 (PART 2):2017 |

| | (1) | | | (2) | | | | | |
|-------|---|-----------------------|-------------------------|--|-----------------------------|-----------------------|---|--|--|
| | Test Det | | | Test equipment | Levels of Control | | | | |
| CI. | Requirement | Clause | Method Referenc e | requiremen t R: required (or) S: Sub- contracting permitted | No. of Sample | Frequency | Remarks | | |
| 4.1 | General | 4.1 | IS9873 (Part2) | S | One sample per series | Once in six months | Sample to be tested also if the material supplier | | |
| | | | | | | | changes | | |
| 4.2 | Toys to be worn on the head | | | | | | | | |
| 4.2.2 | Beards, moustaches, wigs, etc. made from <i>hair,</i> pile, or <i>material that</i> <i>behaves in a</i> <i>similar</i> | 4.2.2 , 5.2 | IS9873 (Part2) | S | One sample per series | Once in six months | Sample to be tested also if the material supplier changes | | |
| | <i>manner to</i> <i>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 | | | | | | | | |

| | | | | | | | Oct 2022 |
|-------|--|---------------|-------------------|---|------|------|------------------|
| 4.2.3 | Beards, moustaches, wigs, etc. made from <i>hair</i> , pile, or <i>material that</i> <i>behaves in a</i> <i>similar</i> <i>manner to</i> | 4.2.3, 5.3 | IS9873 (Part2) | S | -do- | -do- | Oct 2022 -do- |
| | <i>hair</i> (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 | | | | | | |
| 4.2.4 | Full or partial moulded head masks | 4.2.4, 5.3 | IS9873 (Part2) | S | -do- | -do- | -do- |

| | | | | | | | Oct 2022 |
|------|---|--------------------|-------------------|---|------|------|----------|
| .2.5 | Flowing elements of toys to be worn on the head (except those covered by 4.2.2 and 4.2.3), | 4.2.5 , 5.4 | IS9873 (Part2) | S | -do- | -do- | -do- |
| | 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 masks, face masks), but excluding those items covered by 4.3 | | | | | | |
| 4.3 | Toy disguise costumes and toys intended to | 4.3, 5.4 | IS9873 (Part2) | S | -do- | -do- | -do- |
| | be worn by a child in play | | | | | | |
| 4.4 | Toys intended to be entered by a child | 4.4 , 5.4 | IS9873 (Part2) | S | -do- | -do- | -do- |
| 4.5 | Soft-filled toys | 4.5, 5.5 | IS9873 (Part2) | S | -do- | -do- | -do- |

PART C: LEVELS OF CONTROL FOR MIGRATION OF CERTAIN ELEMENTSAS PER IS 9873 (PART 3):2020

| | (1) | | | (2) | | (3) | | | |
|-----|--------------------------------------|------------------|-----------------------------|---|--------------------------|----------------------|---|--|--|
| | Tes Deta | | | Test equipmen | | Levels of Control | | | |
| CI. | Requireme n t | Test M Clause | lethod Refere nce | trequirem ent R: required (or) S: Sub- contracti ng permitte d | No. of Sampl e | Frequency | Remarks | | |
| | Sb, As, Ba, Cd, Cr, Pb, Hg, Se | 8,9,10 | IS 9873 (Part 3):2020 | S | One sample per series | Once in 12 months | 1. Sample also to be tested whenever supplier of material changes | | |

<u>PART D:</u>

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

| | (1) | | | (2) (3) | | | | |
|---------|------------------------|--------------------------|-------------------------|---|-----------------------------|-----------------------|--|--|
| | Test Det | | _ | Test | Levels of Control | | | |
| CI. | Requirement | Test I Clause | Method Referenc e | equipme ntrequire ment R: required (or) S: Sub- contracti ng permitte d | No. of Sample | Frequency | Remarks | |
| 4.1 | General | | | | | | | |
| 4.1.1 | Static strength | 6.2.1 | IS9873 (Part4) | S | One sample per series | Once in six months | Also to be tested whenever supplier of material changes | |
| 4.1.2 | Maximum height | 4.1.2 | IS9873 (Part4) | S | -do- | -do- | -do- | |
| 4.1.3 | Corners and edges | 4.1.3 | IS9873 (Part4) | S | -do- | -do- | -do- | |
| 4.1.4 | Protruding parts | | | | | | | |
| 4.1.4.1 | General | 4.1.4.1 | IS9873 (Part4) | S | One sample per series | Once in six months | Also to be tested whenever supplier of material changes | |
| 4.1.4.2 | All protrusions | 4.1.4.2, 6.7.1 | IS9873 (Part4) | S | -do- | -do- | -do- | |
| 4.1.4.3 | Upright protrusions | 4.1.4.3 , 6.7.1 | IS9873 (Part4) | S | -do- | -do- | -do- | |
| 4.1.4.4 | Motion rides | 4.1.4.4, 6.7.2 | IS9873 (Part4) | S | -do- | -do- | -do- | |
| 4.1.4.5 | Slides | 4.1.4.5, 6.7.1.2 | IS9873 (Part4) | S | -do- | -do- | -do- | |

| | | | | | | | Oct 2022 |
|-------|---|------------------------------|-------------------|---|-----------------------------|-----------------------|--|
| 4.1.5 | Climbing and swinging ropes, chains and cables | 4.1.5 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.1.6 | Open tubing | 4.1.6 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.2 | Barriers | 4.2, 6.5.1, 6.3 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.3 | Rung ladders, stepladders and stairways | 4.3 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.4 | Entrapment | | | | | | |
| 4.4.1 | Head and neck entrapment | 4.4.1, 6.5.1 | IS9873 (Part4) | S | One sample per series | Once in six months | Also to be tested whenever supplier of material changes |
| 4.4.2 | Entrapment of clothing and hair | 4.4.2 , 6.6 | IS9873 (Part4) | S | One sample per series | Once in six months | Also to be tested whenever supplier of material changes |
| 4.4.3 | Entrapment of feet | 4.4.3 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.4.3 | Entrapment of fingers | 4.4.3 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.5 | Stability of activity toys other than | | | | | | |
| | slides, swings and toys with crossbeams | | | | | | |
| 4.5.1 | General | 4.5.1 | IS9873 (Part4) | S | -do- | -do- | -do- |

| | | | | | | | Oct 2022 |
|-------|--|--|-------------------|---|------|------|----------|
| 4.5.2 | Stability of activity toys with a free height of fall of 600 mm or less | 4.5.2, 6.1.1 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.5.3 | Stability of activity toys with a free height of fall of more than 600 mm | 4.5.3 , 6.1.2 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.6 | Slides | 4.5.3 , 6.1.2 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.6.1 | Stability of slides | 4.6.1, 6.1.3 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.6.2 | Retaining sides for slides | 4.6.2 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.6.3 | Starting, sliding and run-out section on slides | 4.6.3 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.6.4 | Roller slides | 4.6.1 to 4.6.3, 4.6.4 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 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 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.7.2 | Strength of crossbeams, swing devices, suspension connectors and | 6.2.2 | IS9873 (Part4) | S | -do- | -do- | -do- |
| | suspension couplings | | | | | | |
| 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 | IS9873 (Part4) | S | -do- | -do- | -do- |

| Oct | 2022 |
|-----|------|
| UCL | 2022 |

| | | | | | | | Oct 2022 |
|--------|---|--------------------------------|-------------------|---|------|------|----------|
| 4.7.4 | Impact from swing elements | 6.4 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.7.5 | Minimum clearance between swing elements, and similar equipment and adjacent structures | 4.7.5 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.7.6 | Lateral stability of swing elements | 4.7.6 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.7.7 | Minimum clearance between swing elements and the ground | 4.7.7 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.7.8 | Suspension connectors and means of suspension | 4.7.8 , 6.8 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.8 | Seesaws | 4.8 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.9 | Carousels and rocking toys | 4.9, 6.1.1, 6.2.1 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.10 | Inflatable activity toys | | | | | | |
| | | | | | | | |
| 4.10.1 | General | 4.10.1 | IS9873 (Part4) | S | -do- | -do- | -do- |

PM/ 9873/9 Oct 2022

| | | | | | | | OCI 2022 |
|--------|--|---|-------------------|---|------|------|----------|
| 4.10.2 | Anchorage | 4.10.2 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.10.3 | Connection tubes for continuous inflation | 4.10.3 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.10.4 | Containment | 4.10.4. 1 to 4.10.4. 4 , 6.9 | IS9873 (Part4) | S | -do- | -do- | -do- |
| 4.11 | Paddling pools | 4.11.1 to 4.11.3, 6.10 | IS9873 (Part4) | S | -do- | -do- | -do- |

<u>PART E:</u> LEVELS OF CONTROL FOR REQUIREMENTS AND TEST METHODS FOR FINGER PAINTSAS PER IS 9873 (PART 7):2017

| (1) Test Details | | | | (2) | | | |
|---------------------|-------------|----------------------------------|-------------------|---|-----------------------------|-------------------------------------|--|
| | | | | Test | Levels of Control | | |
| CI. | Requirement | Test Method | | equipment requiremen | No. of | Frequency | Remarks |
| | | Clause | Referenc | t | Sample | | |
| | | | е | R: required (or) S: Sub- contracting permitted | | | |
| 4.1 | General | 4.1 | IS9873 (Part7) | S | One sample per series | Once in 12 months | Also to be tested whenever supplier of material changes |
| 4.2 | Colourants | 4.1 4.2.1 4.2.2 Table-1 | -do- | S | One | Each consignment of colourant | -do- |

| | _ | · · | | |
|---|----|-----|-----|--|
| Ο | rt | 2(|)22 | |

| Table-2 Annex- A | |
|---|--------------------------|
| | |
| | |
| Annex- B | |
| Annex- C | |
| 4.3 Preservative 4.3 IS9873 S Or | ne Once in 12 Also to be |
| s (Part7) samp ser | le per months tested |
| Annex- D | changes |
| 4.4Migration of certain elements4.4IS9873 (Part3)S-d | ododo- |
| 4.5.1 Limits for 4.5.1.1 IS9873 S -d | odo- |
| Primary(Part7)Aromatic4.5.1.2AminesTable-1 | -do- |
| Table-2 | |
| Annex- A | |
| Annex- B | |
| Annex- C | |
| | odo- |
| other impurities Table-3 | -do- |
| Annex- A | |
| Annex- E | |
| | odo- |
| Smell Table-4 | -do- |
| Annex- A | |

PM/ 9873/9 Oct 2022

| | | | | | | | Oct 2022 |
|------|--|---|-----------------------------------|---|------------------------------------|------------------------------|-----------------|
| 4.7 | pH Value | 4.7 Annex- A | IS9873 (Part7) | S | -do- | -do- | -do- |
| | | | IS 101(Pt.1/ Sec 8) | | | | |
| 4.8 | Binding agents, extenders, humectants and surfactants | 4.8 4.1 Annex- F | IS9873 (Part7) | S | -do- | -do- | -do- |
| 4.9 | N- Nitrosamine S | 4.9 Annex- A | IS9873 (Part7) EN 71- 12 | S | -do- | -do- | -do- |
| 4.10 | Container | 4.10 Annex- A | IS9873 (Part7) | S | -do- | -do- | -do- |
| A.11 | Labelling Guidelines | Annex- A | -do- | R | Each Package of finger paint | Each Package of finger paint | |

<u>PART F:</u> <u>LEVELS OF CONTROL FOR CERTAIN PHTHALATES ESTERS IN TOYS AND</u> <u>CHILDREN'SPRODUCTS</u> <u>AS PER IS 9873 (PART 9):2017</u>

| (1) | | | | (2) | (3) | | | |
|--------------|--|--------|-------------------|---|-----------------------------|----------------------|---|--|
| Test Details | | | | Test | Levels of Control | | | |
| CI. | Requirement | | | equipment requiremen | No. of | Frequency | Remarks | |
| | | Clause | Referenc | t | Sample | ıple | | |
| | | | е | R: required (or) S: Sub- contracting permitted | | | | |
| 3 | Maximum acceptable levels of phthalates | | | | | | | |
| i) | Vinyl in toys or childcare articles | | IS9873 (Part6) | S | One sample per series | Once in 12 months | Also to be tested whenever supplier of material | |

PM/ 9873/9

Oct 2022

| | | | | | | OCI 2022 |
|-----|---|-------------------|---|------|------|----------|
| | | | | | | changes |
| ii) | Vinyl in any part of the toy or childcare article that can be placed in mouth of child under 4 years ofage | IS9873 (Part6) | S | -do- | -do- | -do- |

PART G: LEVELS OF CONTROL FOR SAFETY OF ELECTRIC TOYSAS PER IS 15644:2006

| | (1) | | | (2) | | (3) | |
|-----|--|------------------|-----------------------|---|--------------------------------------|--------------------------|---------|
| | Test Det | | | Test | | Levels of Contro | I |
| CI. | Requirement | Test | Method | equipment requiremen | No. of | Frequency | Remarks |
| | | Clause | Referenc | t | Sample | | |
| | | | е | R: required (or) S: Sub- contracting permitted | | | |
| 8 | Power Input of transformer& dual-supply toys | 8 | IS 15644 | R | One sample from each series | Once in a day | |
| 9 | Heating and abnormal operation | 9.1 to 9.8 | IS 15644 | S | One model from each series | Once in sixmont hs | |
| 10 | Electric Strength at operating temperature | 10 | IS 15644 | S | One model from each series | Once in a month | |
| 11 | Moisture resistance | 11.2 to 11.2 | IS 15644 | S | One sample from each series | Once in six months | |
| 12 | Electric strength at room temperature | 12 | IS 15644 | S | -do- | -do- | |
| 13 | Mechanical Strength | | IEC 60068-2- 75 | S | -do- | -do- | |
| 14 | Construction | 14.1 to 14.14 | IS 15644 | S | -do- | -do- | |

| | | | | | | | Oct 2022 |
|----|--|-----------------|--------------------------------------|---|------|------|---|
| 15 | Protection of cords and wires | 15.1 to 15.2 | IS 15644 | S | -do- | -do- | |
| 16 | Components | 16.1 to 16.3 | IS 15644 | S | -do- | -do- | Certified components shall be used |
| 17 | Screws and Connections | 17.1 to 17.2 | IS 15644 | S | -do- | -do- | |
| 18 | Clearances and creepage distances | 181 | IS 15644 | S | -do- | -do- | |
| 19 | Resistance to heat and fire | 19.1 to 19.2 | IS 15644 | S | -do- | -do- | |
| 20 | Radiation, toxicity and similar hazards | | IS 9873 (Part 3)/ISO 8124-3 | S | -do- | -do- | |

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. <u>However, the manufacturer shall berequired to establish test facilities for only those tests which are applicable to the varieties of toyscovered in his licence.</u>

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 BOHead.

Note-3: Where one sample per series is being tested at a frequency specified under levels of control, it shall be ensured that different models are tested in rotation so that each model in the series is tested over a given period. Samples of toys of different colours shall be tested in rotation, to the extent possible

APPENDIX I

Categories and sub-categories of toys

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

| Sub- | Starting | Description and examples of |
|----------|-------------|--|
| category | age | 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, spin- ners 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 han- dle 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 char- acters 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- | Starting age | Description and examples of appropriate toys |
|----------|--------------|---|
| category | | |
| 33. | 2 years + | Pedal vehicles, kick scooters, walking bicycles, balance bikes - tricy- cles, 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,—boccell-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 com- plex 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, learn- ing 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, particu- larly 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. | | 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 with- out 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 leg-ends and tales-costumes sized to children with accessories such as masks, helmets, swords |

| 100. | 3 years + | Objects imitating home and professional activities – housekeeping ob-jects, 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 accesso- ries, 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 |

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 mark- er pens, and water colours | | | |
| 123. | 2 years + | Colouring and painting materials - simple and limited assortment of mate- rials 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, black- boards, 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 betravelled byusing 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 (TO BE SUBMITTED WITH APPLICATION FOR GRANT OF LICENCE)

Date:

Branch Office Bureau of Indian Standards

Subject: Declaration For Application For Grant of Licence for Safety Of Toys Dear Sir,

With reference to my application for grant of licence to use Grant 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:

1. I am applying for grant of licence/addition in scope of licence (strike out whichever is not applicable) for the following toys:

| Туре | Descripti on of toy | Category No. and Name | Sub- category No. and Name | Input source for electric toy** | Starting Age | Series No.# | Applicable primary standard | Applicable Secondary standard |
|-----------------|------------------------|--|---|---------------------------------|-----------------|----------------|-----------------------------------|-------------------------------------|
| Non electric | Rattle | Category A- Toys for sensorimotor activities — First age | Subcateg ory 1- Rattles and rings | NA | 0 months+ | S01 | IS 9873 Part 1 | IS 9873 Part 2, 3 and 9 |
| | Ring | -do- | -do- | NA | -do- | | | |

*Details in the table are given for illustration. Also see sampling guidelines at Annex-A

** Input source for electric toys - battery operated, transformer operated or dual supply #Details of models contained in each series with starting ages etc. shall be declared by manufacturer to BIS separately and BIS shall endorse the series wise details of models separately in the licence document as Annexure (see Annex-I)

- 2. I declare that the above varieties of toys 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 as per Annex-I
- 3. 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.
- 4. 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:_____

ANNEX-I

SERIES WISE LIST OF MODELS

LICENCE NO. CM/L-NAME OF LICENSEE -

1. SERIES NO: (STARTING AGE:)

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|-----------------|
| | | | |
| | | | |
| | | | |
| | | | |

2. SERIES NO:______(STARTING AGE:______)

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|-----------------|
| | | | |
| | | | |
| | | | |
| | | | |

3. SERIES NO: _____ (STARTING AGE: _____)

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|-----------------|
| | | | |
| | | | |
| | | | |
| | | | |

4. SERIES NO:_____(STARTING AGE:_____)

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

SIGNATURE OF HEAD BO, BIS NAME DESIGNATION DATE

APPENDIX III

FORMAT FOR DECLARATION BY MANUFACTURER (TO BE SUBMITTED WITH APPLICATION FOR CHANGE IN SCOPE OF LICENCE I.E. ADDITION OF NEW SERIES)

Date:

____Branch Office Bureau of Indian Standards

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

Dear Sir,

With reference to my application for Change in Scope of Licence for Safety of Toys i.e. addition of new series in the scope of licence as per Indian Standards under Scheme I of Schedule II of BIS (Conformity Assessment) Regulations, 2018, I hereby declare the following:

1. I am applying for addition in scope of licence for the following new varieties (new series) of toys:

| Туре | Descripti on of toy | Category No. and Name | Sub- category No. and Name | Input source for electric toy** | Starting Age | Series No.# | Applicable primary standard | Applicable Secondary standard |
|-----------------|------------------------|--|---|---------------------------------|-----------------|----------------|-----------------------------------|-------------------------------------|
| Non electric | Rattle | Category A- Toys for sensorimotor activities — First age | Subcateg ory 1- Rattles and rings | NA | 0 months+ | S01 | IS 9873 Part 1 | IS 9873 Part 2, 3 and 9 |
| | Ring | -do- | -do- | NA | -do- | | | |

*Details in the table are given for illustration. Also see sampling guidelines at Annex-A ** Input source for electric toys - battery operated, transformer operated or dual supply #Details of models contained in each series with starting ages etc. shall be declared by manufacturer to BIS separately and BIS shall endorse the series wise details of models separately in the licence document as Annexure (see Annex-I)

- 2. I declare that the above **varieties of toys** belong to a new series no._____which is not already covered in the scope of my licence.
- 3. I declare that I have submitted/will submit the requisite fees for extension in scope of licence to BIS.
- 4. 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.

5. 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 suitableaction.

Regards

Signature of Firm's CEO/Director/Authorized Representative Name/Designation:______ Firm's Name/Address:_____

ANNEX-I

SERIES WISE LIST OF MODELS

LICENCE NO. CM/L-NAME OF LICENSEE -

5. SERIES NO: (STARTING AGE:)

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|-----------------|
| | | | |
| | | | |
| | | | |
| | | | |

6. SERIES NO:______(STARTING AGE:______)

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

7. SERIES NO: _____(STARTING AGE: _____)

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|-----------------|
| | | | |
| | | | |
| | | | |
| | | | |

8. SERIES NO: _____(STARTING AGE: _____)

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|-----------------|
| | | | |
| | | | |
| | | | |
| | | | |

SIGNATURE

NAME DESIGNATION DATE

APPENDIX –IV

FORMAT FOR ADDING NEW MODELS TO SERIES ALREADY COVERED IN THE SCOPE OF LICENCE BY LICENSEE

Date:_____

Branch Office Bureau of Indian Standards

Sir/Madam

Subject: Declaration addition of new models in the series already covered in scope of Licence for Safety Of Toys

With reference to my existing licence for safety of toys (Licence No CM/L-....), I request BIS to add the following new models in the series which are already covered in the scope of my licence

| 1 | SERIES NO: | STARTING AGE: |) | |
|---|------------|---------------|---|--|
| | | | | |

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

2. SERIES NO: (STARTING AGE:)

| S.No. | MODEL NUMBER | TOY DESCRIPTION | TOY IMAGE/PHOTO |
|-------|--------------|-----------------|------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

I declare that the above models belong to the series as indicated above which are already covered in my licence.

I declare that the above information is true and correct to the best of my knowledge and undertake that in case my declaration is found defective or incorrect BIS may take action as deemed appropriate as per the BIS Act, Rules and Regulations which we shall comply with including recall of such products from the market.

Sincerely,

SIGNATURE OF AUTHORISED SIGNATORY NAME DESIGNATION NAME OF FIRM CM/L-