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## Cords/Strings/Elastics Requirements of Different Countries for Toys Testing

| Standard | Australia/New Zealand/ <br> Japan <br> AS/NZS ISO 8124-1:2019/ ISO <br> 8124-2018/ST 2016 Part 1 | $\begin{gathered} \text { China } \\ \text { GB6675-2:2014 } \end{gathered}$ | $\begin{gathered} \hline \text { Canada } \\ \text { CCPSA } \\ \text { SOR/2011- } \\ \hline 17 \\ \hline \end{gathered}$ | Europe <br> EN 71-1:2014 +A1:2018 | USA <br> ASTM F963-17 |
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| Cords and Elastics on Toys | Under 18 months <br> Potential to tangle shall either: <br> - have a length $\leq 220 \mathrm{~mm}$ under $25 \pm 2 N$, or <br> - separate into parts under $25 \pm 2 \mathrm{~N}$. It shall be possible to join the parts after they have been separated without altering the characteristics of the joints. <br> Other cords <br> - have a free length $\leq 300 \mathrm{~mm}$ under $25 \pm 2 \mathrm{~N}$ <br> $\geq 18$ months < 36 months <br> Potential to tangle shall either: <br> - have a length $\leq 300 \mathrm{~mm}$ under $25 \pm 2 \mathrm{~N}$, or <br> - separate into parts under $25 \pm 2 \mathrm{~N}$. It shall be possible to join the parts after they have been separated without altering the characteristics of the joints. <br> Other cords <br> - have a free length $\leq 300 \mathrm{~mm}$ under $25 \pm 2 \mathrm{~N}$ <br> Other cords without a free end <br> - Cord $>220 \mathrm{~mm} \leq 200 \mathrm{~mm}$, toys and packaging shall carry warning indicating that the toy is not suitable for children under the age of 18 months. <br> Fixed loops and nooses (for under 36 months) shall either: <br> - not permit the passage of the head probe , or <br> - be separable under $25 \pm 2 \mathrm{~N}$. <br> Toys with cords intended to be strung across a cradle, cot or perambulator | Under 18 months -Potential to tangle shall have a length $\leq$ 220 mm under $25 \pm 2 \mathrm{~N}$ <br> -For the cord can form a noose or loop, cord length shall $<360 \mathrm{~mm}$ under a 25 N load. <br> -Cord thickness shall $\geq 1.5 \mathrm{~mm}$. <br> - Toys with cords intended to be strung across a cradle, cot or perambulator shall carry a warning stating that these toys are to be affixed so that the cords are out of the reach of children and that the toy is to be removed before the child can reach the cords. The toy shall be accompanied by instructions which indicate how the toy is to be affixed out of reach of children. | The stretchable cord of a yo-yo ball or similar product should not be capable of extending to 500 mm (20 inches) or more. | 5.4.2 Under 18 months <br> 5.4.2.1 <br> Potential to tangle shall either: <br> -have a length $\leq 220 \mathrm{~mm}$ under $25 \pm 2 \mathrm{~N}$, or <br> -separate into parts under $25 \pm 2 \mathrm{~N}$. It shall be possible to join the parts after they have been separated without altering the characteristics of the joints. <br> 5.4.2.2 <br> Two cords or chains with the potential to tangle <br> shall either: <br> a) not be able to make contact at the tangle point; or <br> b) have a combined length ( $A B+B C+C D \leq 220 \mathrm{~mm}$ including the length of both cords or chains with the potential to tangle and the distance across the surface of the <br> toy which they are apart, when each cord or chain with the potential to tangle is measured; or <br> c) separate into parts under 25 N . <br> 5.4.2.3 <br> Separated cords and chains <br> Any cord or chain with the potential to tangle that becomes separated from the toy or remains attached to the toy under 25 N shall comply with the requirements of 5.4.2.1 a) and 5.4.2.2 a) or b). <br> Other cords or chains that become separated or remain attached to the toy under 25 N shall comply with 5.4.2.4. <br> 5.4.2.4 <br> Free length of cords and chains <br> The free length of individual cords and chains, excluding pull-along toys, shall $\leq 300 \mathrm{~mm}$ when measured independently under 25 N . <br> Two cords or chains that are attached to the toy shall be considered as two separate cords or chains for the purpose of this requirement. Where more than two cords or chains are attached, each is considered a separate cord. <br> 5.4.3 $\geqq 18$ months but < 36 months <br> 5.4.3.1 <br> Potential to tangle shall either: <br> - have a length $\leq 300 \mathrm{~mm}$ under 25 N , or <br> - separate into parts under 25N. <br> 5.4.3.2 <br> Two cords or chains with the potential to tangle <br> Shall either: <br> a) not be able to make contact at the tangle point; or <br> b) have a combined length ( $A B+B C+C D$ ) $\leq 300 \mathrm{~mm}$, including the length of both cords or chains with the potential to tangle and the distance across the surface of the toy which they are apart, when each cord or chain with the potential to tangle; or | Under 18 months. Cord should not over 12 in. (300 mm ) measured at free state and under $5 \mathrm{lb} .(2.25 \mathrm{~kg})$ load, perimeter of loop do not allow the passage of head probe under 10 lb . ( 45 N ) force. |

Separated cords and chains
Any cord or chain with the potential to tangle that becomes separated or remains attached to the toy after breakaway feature separation test shall comply with the requirements of 5.4.3.1 a) and 5.4.3.2 a) or b).

Other cords or chains that become separated or remain attached to the toy after breakaway feature separation test shall comply with 5.4.3.4.

### 5.4.3.4

Free length of cords and chains
Toys with attached cords and chains with a free length > 300 mm , shall carry a warning
( $\geq 18$ months < 36 months).
5.4.3.5

Cords and chains not suitable for children under 18 months
Cords or chains with the potential to tangle which comply with the requirements of 5.4.3.1 to 5.4.3.3 but not with 5.4.2.1 to 5.4.2.3 shall carry a warning ( $\geq 18$ months $<36$ months)

### 5.4.4

Fixed loops, tangled loops and nooses
Cords or chains that comprise fixed loops or nooses on toys, as received and tangled loops formed by cords and chains with the potential to tangle, shall either:

- have a perimeter $\leq 380 \mathrm{~mm}$ (cords and chains
with a single fixing point or with fixing points less than 94 mm apart), or a distance " d " $\leq 96 \mathrm{~mm}$ (cords and chains fixed to a toy at points of 94 mm or more apart); or
- separate such that the loop or noose is no longer intact in breakaway feature separation test.

In addition, any cord or chain with the potential to tangle attached to the toy after the breakaway has been separated, shall continue to comply with the requirements of 5.4.2.1 a) and 5.4.2.2 a) and b) or 5.4.3.1 a) and 5.4.3.2 a) and b) as well as 5.4.3.5, as appropriate for the age of the toy.

Where the distance between fixing points of cords and chains can change during play due to the flexibility of the toy the perimeter
shall be determined according to 8.36.2.1 regardless of the at-rest distance between the fixing points.

### 5.4.9.1

Toys intended to be strung across a cradle, cot or perambulato
-shall carry a warning
5.4.9.2

Toys otherwise intended to be attached to a cradle, cot or perambulator
-where any attached cords or chains do not comply with the requirements of 5.4 .2 to 5.4.8, shall bear a warning stating that these toys are to be affixed so that the cords are out of the reach of children and that the toy is to be removed before the child can reach the cords.
The toy shall be accompanied by instructions which indicate how the toy is to be affixed out of reach of children.
Toy electrical cable > 300mm for 18 months or over should have long cable warning.

| Standard | $\begin{gathered} \hline \text { Australia/New Zealand } \\ \text { AS/NZS ISO 8124- } \\ \text { 1:2019/ ISO 8124-2018 } \\ \hline \end{gathered}$ | China GB6675-2:2014 | $\begin{gathered} \text { Canada } \\ \text { CCPSA SOR/2011-17 } \end{gathered}$ | Europe <br> EN 71-1:2014 +A1:2018 | Japan <br> ST 2016 Part 1 | $\begin{gathered} \text { USA } \\ \text { ASTM F963-17 } \end{gathered}$ |
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| Self Retracting Pull Cords | Under 18 months. Cord shall not retract more than 6.4 mm under 0.9 kg . <br> Mono-filament (dia. $<2 \mathrm{~mm}$ ) shall not retract more than 6.4 mm under 0.45 kg . | Under 18 months. Cord shall not retract more than 6.4 mm under 0.9 kg . | No Requirement | Under 36 months. Cord thickness shall $\geq 1.5 \mathrm{~mm}$, and shall not retract more than 6 mm under 25 N . | Under 36 months. <br> Cords shall have an average crosssectional dimension $\geq 1.5 \mathrm{~mm}$ under $25 \pm 2 \mathrm{~N}$, and shall not retract $>6.4 \mathrm{~mm}$ under ( $1 \pm 0.1 \mathrm{~kg}$ ) | Under 18 months. Cord retract shall be $<1 / 4 \mathrm{in}$. ( 6 mm ) under a $2 \mathrm{lb} .(0.9 \mathrm{~kg})$ load. <br> Mono-filament, diameter $\leq$ 1/16 in. (2 mm): not retract under a 1 lb . (0.45 kg) load |
| Pull Toys | Under 36 months. If cord length more than 220 mm shall not have beads or other attachments to form a loop. | Under 36 months. If cord length > 220mm - shall not have beads or other attachments to form a loop. | No Requirement | Cord and chain with a free end for 0-36 months shall $\leq 800 \mathrm{~mm}$ under 25 N | Under 36 months Shall have a free length $\leq 800 \mathrm{~mm}$ under 25 N . | Under 36 months. Cord length > $12 \mathrm{in} .(300 \mathrm{~mm})$ shall not have beads or other attachments to form a loop |
| String and Lines for Flying Devices | Line > 1.8 m - electrical resistance $>10^{8} \Omega / \mathrm{cm}$. Warning statement Required | Line > 1.8 m - electrical resistance $>10^{8} \Omega / \mathrm{cm}$. Warning statement Required | No Requirement | Line > 2 m - electrical resistivity > $100 \mathrm{M} \Omega / \mathrm{cm}$ (cl 4.13) <br> Warning statement required | Hand-held cords, strings and lines over 1.8 m long, attached to toy kites or other flying toys, shall have an electrical resistance of $>$ $10^{8} \Omega / \mathrm{cm}$. <br> Toy kites and other flying toys shall carry a warning. | Line > 6 ft . ( 1.8 m ) : electric resistivity $>10^{8} \Omega / \mathrm{cm}$ |
| Cords on Toy Bags | Impermeable material with opening perimeter $>360$ mm shall not have a drawstring or cord as means of closing. | Impermeable material with opening perimeter $>360$ mm shall not have a drawstring or cord as means of closing. | No Requirement | Applicable for all ages children. Opening perimeter $>380 \mathrm{~mm}$ having a drawstring as a means of closure shall either: <br> a) Be made of material permeable to air, or <br> b) Comply with requirements given in 4.14.2a) mask and helmets. | Impermeable material with opening perimeter $>360 \mathrm{~mm}$ shall not have a drawstring or cord as means of closing. | Up to 18 months Impermeable material with opening perimeter > 14 in ( 360 mm ) shall not have a drawstring or cord as means of closing. |
| Break away feature | No Requirement | No Requirement | No Requirement | Releasing force less than 25N. | Releasing force less than 25 N . | Releasing force < 5.0lbf. <br> The feature shall be capable of being reattached without altering the characteristics of the attachment. The free length of the individual released cord, strap, or elastic $\leq 12 \mathrm{in}$. ( 300 mm ). |

