

## Toxic Elements Requirements of Different Countries for Toys and Children's Products

|               | Australia/New Zealand                 |                                | Canada                  |                                        | China                |               |                                                        | Japan                               |                                                              |                          | USA                     |                                       |                |
|---------------|---------------------------------------|--------------------------------|-------------------------|----------------------------------------|----------------------|---------------|--------------------------------------------------------|-------------------------------------|--------------------------------------------------------------|--------------------------|-------------------------|---------------------------------------|----------------|
|               | AS/NZS ISO 8124.3                     |                                | Toys Regulations        |                                        | GB 6675.1/ISO 8124.3 |               |                                                        | Food Sanitation Law                 | ST Standard Part 3                                           |                          | ASTM F963               |                                       |                |
| Elements      | Any toy material except modeling clay | Modeling clay and finger paint | Paint & surface coating | Children's jewelry (metal or nonmetal) | Finger paint         | Modeling clay | Any toy material except modeling clay and finger paint | Paint coating including PVC coating | Coating on toy, ink and the like used for graphic instrument | Children's metallic toys | Paint & similar coating | Any toy material except modeling clay | Modeling clays |
|               | mg/kg                                 |                                | %                       | mg/kg                                  | mg/kg                |               |                                                        | mg/kg                               |                                                              |                          | ppm                     |                                       |                |
| Antimony (Sb) | Sol. 60                               | Sol. 60                        | Sol. 0.1                | -                                      | Sol. 10              | Sol. 60       | Sol. 60                                                | -                                   | Sol. 60                                                      | -                        | Sol. 60                 | Sol. 60                               | Sol. 60        |
| Arsenic (As)  | Sol. 25                               | Sol. 25                        | Sol. 0.1                | -                                      | Sol. 10              | Sol. 25       | Sol. 25                                                | Sol. 25                             | Sol. 25                                                      | -                        | Sol. 25                 | Sol. 25                               | Sol. 25        |
| Barium (Ba)   | Sol. 1000                             | Sol. 250                       | Sol. 0.1                | -                                      | Sol. 350             | Sol. 250      | Sol. 1000                                              | -                                   | Sol. 1000                                                    | -                        | Sol. 1000               | Sol. 1000                             | Sol. 250       |
| Cadmium (Cd)  | Sol. 75                               | Sol. 50                        | Sol. 0.1                | Tl.130 (small part)                    | Sol. 15              | Sol. 50       | Sol. 75                                                | Sol. 75                             | Sol. 75                                                      | -                        | Sol. 75                 | Sol.75 Sol.200 $\mu$ g*               | Sol. 50        |
| Chromium (Cr) | Sol. 60                               | Sol. 25                        | -                       | -                                      | Sol. 25              | Sol. 25       | Sol. 60                                                | -                                   | Sol. 60                                                      | -                        | Sol. 60                 | Sol .60                               | Sol. 25        |
| Lead (Pb)     | Sol. 90                               | Sol. 90                        | Tl. 0.009               | Tl. 90                                 | Sol. 25              | Sol. 90       | Sol. 90                                                | Sol. 90                             | Sol. 90                                                      | Sol. 90                  | Tl. 90#                 | Tl. 100#                              | Tl. 100#       |
|               | Sol. 90                               | Sol. 90                        |                         |                                        |                      |               |                                                        |                                     |                                                              |                          | Sol. 90                 | Sol. 90                               | Sol. 90        |
| Mercury (Hg)  | Sol. 60                               | Sol. 25                        | Tl. 0.001               | -                                      | Sol. 10              | Sol. 25       | Sol. 60                                                | -                                   | Sol. 60                                                      | -                        | Sol. 60                 | Sol. 60                               | Sol. 25        |
| Selenium (Se) | Sol. 500                              | Sol. 500                       | Sol. 0.1                | -                                      | Sol. 50              | Sol. 500      | Sol. 500                                               | -                                   | Sol. 500                                                     | -                        | Sol. 500                | Sol. 500                              | Sol. 500       |
| Others        | -                                     | -                              | -                       | -                                      | -                    | -             | -                                                      | -                                   | -                                                            | -                        |                         |                                       |                |

ppm = parts per million

Sol. = soluble

mg/kg = milligram per kilogram

Tl. = total

Ni = Nickel

ND = not detected

Sr = Strontium

Elu = Elusion

#Total content as limited by CPSIA

\*= metallic toys or metallic toy components which are small parts

**Toxic Elements Requirements of 2009/48/EC and EN71-3**

| Element (mg/kg) | Category I :<br>Dry, brittle,<br>powder-like or<br>pliable material | Category II :<br>Liquid or sticky<br>material | Category III :<br>Scraped off material |
|-----------------|---------------------------------------------------------------------|-----------------------------------------------|----------------------------------------|
| Aluminium       | 5625/2250^                                                          | 1406/560^                                     | 70000/28130^                           |
| Antimony        | 45                                                                  | 11.3                                          | 560                                    |
| Arsenic         | 3.8                                                                 | 0.9                                           | 47                                     |
| Barium          | 1500                                                                | 375                                           | 18750                                  |
| Boron           | 1200                                                                | 300                                           | 15000                                  |
| Cadmium         | 1.3                                                                 | 0.3                                           | 17                                     |
| Chromium (III)  | 37.5                                                                | 9.4                                           | 460                                    |
| Chromium (VI)   | 0.02                                                                | 0.005                                         | 0.053                                  |
| Cobalt          | 10.5                                                                | 2.6                                           | 130                                    |
| Copper          | 622.5                                                               | 156                                           | 7700                                   |
| Lead            | 2.0                                                                 | 0.5                                           | 23                                     |
| Manganese       | 1200                                                                | 300                                           | 15000                                  |
| Mercury         | 7.5                                                                 | 1.9                                           | 94                                     |
| Nickel          | 75                                                                  | 18.8                                          | 930                                    |
| Selenium        | 37.5                                                                | 9.4                                           | 460                                    |
| Strontium       | 4500                                                                | 1125                                          | 56000                                  |
| Tin             | 15000                                                               | 3750                                          | 180000                                 |
| Organic tin     | 0.9                                                                 | 0.2                                           | 12                                     |
| Zinc            | 3750                                                                | 938                                           | 46000                                  |

**^Effective on 20 May 2021**