

ICTI Review of International Standards Comparison Table Toys Heavy Metals Requirements

Harmonising Heavy Metals requirements across all Standards has presented a challenge.

It appears however that the best solution could be to use both the surface coating requirements (Soluble Lead) - which are at present the same over all three standards at 90ppm - plus the ASTM requirement for Total Lead which at this time is 600ppm but which could eventually be reduced to 90ppm.

Certain European countries currently have total lead included in their standards, eg Denmark uses a limit of 100ppm. The only country that appears to differ on the maximum levels is Canada. As their levels are all higher this should not be an issue.

Note also that requirements for levels of heavy metals are currently the subject of proposals in several separate US states to bring the 90 ppm down to, in some instances, as low as 40 ppm. This is not really practical or necessary as it is entirely possible that items could marginally exceed this level through contamination during the production process. Also it is not at this time practical to commercially test down to this level and provided a level of 90 ppm (the most likely level to be accepted) is fully observed it should not be necessary to restrict further.

The level for Jewellery is currently at 600ppm in most but not all US states (down to 200ppm in Maryland). This will be under pressure and will most likely need to be brought into line at 90ppm. This will require a major decision by Industry and Standards but may prove to be the most logical direction to take.

If this could be accepted the scope of the standard could be opened up to include other materials.

NOTE: These levels should be for ALL ages.

It should be noted that the Chinese Standard is effectively the ISO 8124 and also the Indian Toy Industry has recently announced that they would be adopting the EN71 Standard

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**COMPARISON TABLE
TOYS HEAVY METALS REQUIREMENTS**

Country Standards	USA CPSC	Europe		Australia	
		ASTM F963-07	EN 71 Part 3	AS/NZS ISO 8124 Part 3	TM 4
Toys Materials	Coatings	Coatings	TM 1,2,3 (a & b)	TM 4	TM 4
Elements	%	mg/kg	mg/kg	mg/kg	mg/kg
Arsenic (As)	---	25 S	25 S	25 S	25 S
Mercury (Hg)	---	60 S	60 S	60 S	25 S
Selenium (Se)	---	500 S	500 S	500 S	500 S
Antimony (Sb)	---	60 S	60 S	60 S	60 S
Lead (Pb)	0.06 T	600 T / 90 S	90 S	90 S	90 S
Cadmium (Cd)	---	75 S	75 S	50 S	50 S
Barium (Ba)	---	1000 S	1000 S	250 S	250 S
Chromium (Cr)	---	60 S	60 S	25 S	25 S

NOTES

- TM =**
1. Surface Coating
 2. Polymeric material, paper, textiles, mass coloured materials and materials intended to leave a trace
 - 3a. Glass / ceramic
 - 3b. Metallic material
 4. Modeling clay and finger paint
- T = Total Content
S = Soluble Content
mg/kg = ppm