



Limits of Colourants in Toys

Maximum permissible levels of certain metals and metalloids that are soluble or extractable from toys in 0.07 N HCl
All limits and concentrations in ppm = mg/kg

Country Reference	CEN* EN 71-3 Toy**	CEN* EN 71-3 Modelling clay	Australia* AS 1647.3 Toy Materials	Australia* AS 1647.3 Modelling clay Fingerpaint	USA ASTM F 963-03 Surface coatings	UK SI 1275-1989
Substance						
Antimony (Sb)	60	60	60	60	60	60
Arsenic (As)	25	25	25	25	25	25
Barium (Ba)	1000	250	500	250	1000	250
Cadmium (Cd)	75	50	75	50	75	50
Chromium (Cr)	60	25	60	25	60	25
Lead (Pb)	90	90	90	90	90	90
Mercury (Hg)	60	25	60	25	60	25
Selenium (Se)	500	500	500	500	500	500
Lead (Pb)					600***	

COLORANA® M-Products Acid soluble Heavy metals	COLORANA® CM-Black Acid soluble Heavy metal	COLORANA® CRM-Red Acid soluble Heavy metal
< 0.5	<3	< 0.5
< 0.5	<3	< 0.5
< 5	<5	< 5
< 0.1	<0.1	< 0.1
< 2	<3	< 2
< 0.5	<3	< 0.5
< 0.003	<0.003	< 0.003
< 1	<15	< 1

* CEN Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Switzerland.

Other states following the principles of EN-71-3: Czech Rep., Poland.

** Toy: The Standard specifies test methods for the migration from toy materials as follows:

- 1.) Coatings of paints, varnishes, lacquers, printing inks, polymers and similar coatings
- 2.) Polymeric and similar materials, inc. Laminates, whether textile reinforced or not
- 3.) Paper and paper board
- 4.) Textiles whether natural or synthetic
- 5.) Glass/ceramic/metallic materials
- 6.) Other materials whether mass coloured or not (wood, fibre board, hard board, bone and leather)
- 7.) Materials intended to leave a trace (graphite materials in pencils and liquid ink in pens)
- 8.) Pliable modelling materials (clays and gels)
- 9.) Paints, varishes, lacquers, glazing powders and similar materials in solid or in liquid form in toys

*** ASTM F 963-03 prohibits the use of paints and similar coatings materials that contain lead or lead compounds in the excess of 600ppm lead.