

Bottles (plastic, glass, stainless steel): HMTc Standard

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<https://heavymetalcertified.com/standards/infant-bottles>. Retrieved 2026-09-27.

How every number on this page is set

WHAT THIS STANDARD COVERS

Covers the bottle body in plastic, glass, or stainless steel. Nipples and teats are certified separately under Bottle nipples and spouts; general-market drinkware not marketed for children routes to Category 23.

Bottles (plastic, glass, stainless steel) is a contact product, not a food. Its heavy-metal limits are specific migration limits into the milk or food it holds ([EU Regulation 10/2011](#); US FDA food-contact provisions). Regulation 10/2011 is written for plastics; for glass and stainless-steel components the same limits are applied as a conservative read-across, since no stricter metal-food-contact sovereign limit exists: not dietary maximum levels. The standard for each analyte is the strictest limit set by any credible government regulator for this product in its own basis: a lookup of sovereign law, with the measured quantity stated on every row. Where no instrument directly governs the exact product form: a pacifier is excluded from the [Toy Safety Directive](#), a disposable diaper from the REACH textile restriction: the limit is read across from the nearest applicable sovereign limit and labelled as a read-across, never asserted as direct governance. Migration limits (what leaves the article into saliva or food) and total-content limits (how much metal the article contains) are different quantities measured by different methods; they are published as separate ceilings and never combined into one number. A certified product meets every applicable limit at once, each on a like-for-like basis.

[Inorganic arsenic](#) and [methylmercury](#) are not published for this category: they are ingestion-and-bioaccumulation speciation forms with no migration counterpart in a contact article, and the total-element ceilings (total arsenic, total mercury) bound them. Where a cell is marked not material, no regulator sets a limit and no exposure pathway exists; the determination is recorded, not left blank.

Master Limit Table

Limits in mg/kg, in the basis named on each row. "ND" means not detectable at the regulation's stated detection limit: the strictest possible ceiling. Sub-rows (↳) are companion ceilings in a different basis that also apply. Every claim analyte is equal at the gate. A product is certified only when every analyte

is at or below 100% of its published government floor or disclosed read-across; above the limit, on any metal, it is not certified and carries no mark. Antimony is regulated in the toy-migration instruments and screened, but is not one of the ten HMTc certification analytes.

ANALYTE	HMTc LIMIT	BASIS	STRICTEST GOVERNMENT	RATIONALE	
Lead (Pb)	ND (<0.01)	specific migration into food (mg/kg food)	European Union	regulatory-alignment	
↳ Total-lead content ceiling (children's-product law)		90	total lead content (mg/kg of product)	Washington State	companion ceiling
Arsenic, total (tAs)	ND (<0.01)	specific migration into food (mg/kg food)	European Union	regulatory-alignment	
Cadmium (Cd)	ND (<0.002)	specific migration into food (mg/kg food)	European Union	regulatory-alignment	
↳ Total-cadmium content ceiling (children's-product law)		40	total cadmium content (mg/kg of product)	Washington State	companion ceiling
Mercury, total (tHg)	ND (<0.01)	specific migration into food (mg/kg food)	European Union	regulatory-alignment	
Nickel (Ni)	0.02	specific migration into food (mg/kg food); stainless-steel drinkware additionally controlled by nickel release <=0.5 ug/cm2/week (former EU Directive 94/27/EC)	European Union	regulatory-alignment	
Aluminium (Al)	1	specific migration into food (mg/kg food)	European Union	regulatory-alignment	
Chromium, total (Cr)	ND (<0.01)	specific migration into food (mg/kg food)	European Union	regulatory-alignment	
Chromium VI (Cr-VI)	ND (<0.01)	specific migration into food, not detectable at LOD; source unit mg/kg food	European Union (read-across)	regulatory-alignment	

Screened, not limited

All ten HMTc certification analytes, plus a total-chromium screen, are accounted for. The analytes below carry no published ceiling for this product because no exposure pathway and no government limit exist; each determination is recorded here rather than left as a silent gap. They are screened during certification, not certified against a number.

ANALYTE	WHY IT CARRIES NO CEILING FOR THIS PRODUCT
Inorganic arsenic (iAs)	Food-contact migration limits regulate total arsenic; no inorganic-arsenic migration limit exists. Bounded by the tAs specific-migration ceiling.
Methylmercury (MeHg)	No methylmercury pathway in a food-contact article. Bounded by the tHg specific-migration ceiling.

ANALYTE	WHY IT CARRIES NO CEILING FOR THIS PRODUCT
Tin (Sn)	Tin migration is a tinplate/canned-food pathway; there is no tin source in a plastic, glass, or stainless food-contact bottle. Material only for tin-plated cans (Category 6/7).

Derivation: every government value, side by side

Each row lists every government limit weighed for this analyte in the governing basis, converted to mg/kg; the HMTc limit is the strictest of them. Companion total-content ceilings appear in the Master Limit Table above, not here, because they are a different measured quantity.

ANALYTE	GOVERNMENT LIMITS CONSIDERED (MG/KG)	HMTc	BINDS
Lead (Pb)	European Union 0.01	ND (<0.01)	European Union
Arsenic, total (tAs)	European Union 0.01	ND (<0.01)	European Union
Cadmium (Cd)	European Union 0.002	ND (<0.002)	European Union
Mercury, total (tHg)	European Union 0.01	ND (<0.01)	European Union
Nickel (Ni)	European Union 0.02	0.02	European Union
Aluminium (Al)	European Union 1	1	European Union
Chromium, total (Cr)	European Union 0.01	ND (<0.01)	European Union
Chromium VI (Cr-VI)	European Union 0.01 (read-across)	ND (<0.01)	European Union (read-across)

Cite this standard

REUSE THIS PAGE
Pendergrass, K. “Bottles (plastic, glass, stainless steel).” In Heavy Metal Tested & Certified (HMTc) Infant and Child Contact Products standard, version 1.0 (2026-08-10). Institute of Contaminant Standards (ICS), 2026. The evidence each limit is applied to lives on the independent Heavy Metal Index²; HMTc cites it one way and never the reverse. HMTc standards are living, versioned documents; this page reflects 1.0 (2026-08-10).

Source regulations

Every government regulation weighed to set this standard, evaluated against each other in the correct basis. The strictest applicable limit binds each analyte; basis is never conflated across families.

#	Regulation	Instrument	Basis	Role in this standard
1	EU Regulation 10/2011 (plastic food-contact, Annex II) ²	Migration limit	specific migration into food	Binds one or more migration/extraction limits

#	Regulation	Instrument	Basis	Role in this standard
2	Washington Children's Safe Product Act 	Content limit	total content	Companion total-content ceiling