

Bottle nipples and spouts: HMTc Standard

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

How every number on this page is set

WHAT THIS STANDARD COVERS

Covers bottle nipples, teats, and spouts (silicone, latex). Pacifier nipples are certified under [Pacifiers](#) and sucking/teething aids.

Bottle nipples and spouts 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](#)¹; 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](#)², 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 / mouthable-article 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)	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)	No inorganic-arsenic migration limit; bounded by the tAs specific-migration ceiling.
Methylmercury (MeHg)	No methylmercury pathway in a nipple/teat. Bounded by the tHg ceiling.
Tin (Sn)	Inorganic tin has no migration pathway from a platinum-cured silicone or latex nipple; food-grade nipples are platinum-cured, not condensation-cured (which would use organotin catalysts). Certification requires platinum-cure documentation or an organotin screen; the separate EU toy organic-tin migration limit (Cat III 12 mg/kg) covers organotin, which the inorganic-Sn cell does not bound.

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

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The evidence each limit is applied to lives on the independent [Heavy Metal Index](#); 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)	Migration limit	specific migration into food	Binds one or more migration/extraction limits
2	Washington Children's Safe Product Act	Content limit	total content	Companion total-content ceiling