

Pacifiers and sucking/teething aids: HMTc Standard

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How every number on this page is set

WHAT THIS STANDARD COVERS

Covers soothers/pacifiers and sucking/teething aids (the nipple, shield, ring, and any clip in the mouthing zone). [Teething toys](#) with play value are certified under Teething toys/teethers; pacifier metal safety is governed via the EN 1400 soother standard.

Pacifiers and sucking/teething aids is a contact product, not a food. Its heavy-metal limits are the element-migration limits required by the EN 1400 soother standard, which applies the EN 71-3 / [Toy Safety Directive](#) ^{EN} Category III limits. Pacifiers are excluded from the Toy Safety Directive itself (Annex I item 16), so these migration limits are read across from the toy-migration regime via the EN 1400 route; the limit values are identical: 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)	23	element migration from scraped-off toy material (Category III); source unit mg/kg	European Union (read-across)	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)	25	element migration, scraped-off toy material (mg/kg)	United States (ASTM F963 / CPSIA)	regulatory-alignment	
Cadmium (Cd)	17	element migration from scraped-off toy material (Category III); source unit mg/kg	European Union (read-across)	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)	60	element migration, scraped-off toy material (mg/kg)	United States (ASTM F963 / CPSIA)	regulatory-alignment	
Nickel (Ni)	930	element migration from scraped-off toy material (Category III); source unit mg/kg	European Union (read-across)	regulatory-alignment	
Aluminium (Al)	28130	element migration from scraped-off toy material (Category III); source unit mg/kg	European Union (read-across)	regulatory-alignment	
Chromium VI (Cr-VI)	0.053	element migration from scraped-off toy material (Category III); source unit mg/kg	European Union (read-across)	regulatory-alignment	
Tin (Sn)	180000	element migration from scraped-off toy material (Category III); source unit mg/kg	European Union (read-across)	regulatory-alignment	

Screened, not limited

All ten HMTc certification analytes 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)	Contact-product arsenic limits regulate the total arsenic element; no toy-safety or soother instrument sets an inorganic-arsenic limit. Inorganic arsenic is a dietary speciation with no migration counterpart. The tAs migration ceiling bounds the inorganic fraction.
Methylmercury (MeHg)	Methylmercury is a marine-bioaccumulation speciation with no formation or migration pathway in a pacifier or teether. Every contact-product mercury limit is on total mercury. The tHg migration ceiling bounds any organomercury fraction.

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 23 (read-across)	23	European Union (read-across)
Arsenic, total (tAs)	United States (ASTM F963 / CPSIA) 25 · Mexico 25 · European Union 47	25	United States (ASTM F963 / CPSIA)
Cadmium (Cd)	European Union 17 (read-across)	17	European Union (read-across)
Mercury, total (tHg)	United States (ASTM F963 / CPSIA) 60 · Mexico 60 · European Union 94	60	United States (ASTM F963 / CPSIA)
Nickel (Ni)	European Union 930 (read-across)	930	European Union (read-across)
Aluminium (Al)	European Union 28130 (read-across)	28130	European Union (read-across)
Chromium VI (Cr-VI)	European Union 0.053 (read-across)	0.053	European Union (read-across)
Tin (Sn)	European Union 180000 (read-across)	180000	European Union (read-across)

Cite this standard

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Pendergrass, K. “Pacifiers and sucking/teething aids.” 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 Index¹⁷; 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	[European Commission] (https://heavymetalindex.com/regulations/  Annex I item 16); EN 71-3 test basis)	Migration limit	acid-soluble migration from material	Binds one or more migration/extraction limits
2	Washington Children's Safe Product Act 	Content limit	total content	Companion total-content ceiling
3	ASTM F963 (mandatory under CPSIA s.106) 	Migration limit	acid-soluble migration from material	Binds one or more migration/extraction limits