

Condensed and evaporated milks: HMTc Standard

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heavy metals, food safety, dietary exposure

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CORRESPONDENCE

Corrections are logged publicly on the article page, each with its date, the affected value, and the source that resolved it.

Abstract

The Heavy Metal Tested & Certified standard for condensed and evaporated milks, stated as sold in the can. These concentrated, canned products carry their own government maximums, and the canned-food tin maximum applies directly because tin migrates from the can; every other limit is the strictest sovereign maximum, with a disclosed read-across where none regulates the exact analyte.

1 | How every number on this standard is set

HMTc Method v2.0 (government-limit default; no dairy reconstitution; disclosed read-across; species/package controls)

2 | Master limit table

All values in ppb (µg/kg), as sold basis. A brand meeting every value qualifies for the mark.

ANALYTE	TIER	HMTc LIMIT	BASIS
Lead (Pb)	Tier 1	200	government maximum level
Cadmium (Cd)	Tier 1	100	government maximum level
Total arsenic (tAs)	Tier 2	100	government maximum level

Inorganic arsenic (iAs)	Tier 1	$\leq$ tAs	bounded by tAs (reflex speciation)
Mercury, total (tHg)	Tier 1	100	human-grade read-across (Israel)
Methylmercury (MeHg)	Tier 1	$\leq$ tHg	bounded by tHg (reflex speciation)
Nickel (Ni)	Tier 2	100	human-grade read-across (European Union)
Tin (Sn)	Tier 2	200,000	government maximum level
Aluminium (Al)	Tier 2	500	human-grade read-across (Australia / New Zealand)
Total chromium (Cr)	Tier 2	300	human-grade read-across (China)
Hexavalent chromium (Cr-VI)	Tier 2	$\leq$ Cr	bounded by Cr (reflex speciation)

3 | Derivation – where each number comes from

Every cell traces to one named sovereign maximum level (the strictest for the nearest analog), or to an explicit control, not-material, or species-bounded determination. No occurrence statistic selects a certification value.

ANALYTE	HMTC	SOVEREIGN ANALOG / DETERMINATION
Lead (Pb)	200	government maximum level
Cadmium (Cd)	100	government maximum level
Total arsenic (tAs)	100	government maximum level
Inorganic arsenic (iAs)	$\leq$ tAs	iAs carries no product-specific sovereign cell; it is a component of and bounded by its parent total tAs (iAs $\leq$ tAs), an enforceable ceiling via reflex speciation rather than an empty cell.
Mercury, total (tHg)	100	Israel — human-food analog
Methylmercury (MeHg)	$\leq$ tHg	MeHg carries no product-specific sovereign cell; it is a component of and bounded by its parent total tHg (MeHg $\leq$ tHg), an enforceable ceiling via reflex speciation rather than an empty cell.

Nickel (Ni)	100	European Union — human-food analog
Tin (Sn)	200,000	government maximum level
Aluminium (Al)	500	Australia / New Zealand — human-food analog
Total chromium (Cr)	300	China — human-food analog
Hexavalent chromium (Cr-VI)	≤ Cr	Cr-VI carries no product-specific sovereign cell; it is a component of and bounded by its parent total Cr (Cr-VI ≤ Cr), an enforceable ceiling via reflex speciation rather than an empty cell.

4 | Cite this standard

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References

- [1] Australia / New Zealand — human-food maximum levels
Binds Al. Strictest applicable human-food sovereign maximum for the nearest analog.
MAXIMUM LEVEL
- [2] China — human-food maximum levels
Binds Cr. Strictest applicable human-food sovereign maximum for the nearest analog.
MAXIMUM LEVEL
- [3] European Union — human-food maximum levels
Binds Ni. Strictest applicable human-food sovereign maximum for the nearest analog.
MAXIMUM LEVEL
- [4] Israel — human-food maximum levels
Binds tHg. Strictest applicable human-food sovereign maximum for the nearest analog.
MAXIMUM LEVEL

STATUS AND LICENCE

A normative certification standard, editorially reviewed and version-controlled in-house; every value traces to a named sovereign maximum level, disclosed in the derivation. © 2026 Institute of Contaminant Standards / Heavy Metal Certified. All rights reserved.

COMPETING INTERESTS

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DATA AVAILABILITY

The works this reference draws on are listed in full in the references above and on the briefing page at <https://heavymetalcertified.com/standards/dairy-condensed-evaporated>. Primary legal instruments and expert-body assessments are named with their public identifiers; the underlying occurrence and toxicology corpus is maintained on the Heavy Metal Index.

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This revision 2026-08. The full dated record is maintained at <https://heavymetalcertified.com/standards/dairy-condensed-evaporated>.