

Candy and confectionery (hard candy, caramels, imported/ethnic sweets): HMTc Standard

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KEYWORDS

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 Candy and confectionery (hard candy, caramels, imported/ethnic sweets) (Chocolate, Cocoa and Confectionery), stated as sold. Each analyte carries the strictest applicable government maximum level in the product's native basis, with a disclosed read-across or a mandatory control where no government regulates the exact product.

1 | How every number on this standard is set

HMTc Method v2.0 (government-limit default; explicit-id lookup; legislated product-form splits preserved)

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	100	sovereign maximum level
Cadmium (Cd)	Tier 1	—	—
Total arsenic (tAs)	Tier 2	100	sovereign maximum level
Inorganic arsenic (iAs)	Tier 1	n/m	not material in this matrix
Mercury, total (tHg)	Tier 1	n/m	not material in this matrix

Methylmercury (MeHg)	Tier 1	n/m	not material in this matrix
Nickel (Ni)	Tier 2	—	—
Tin (Sn)	Tier 2	n/m	not material in this matrix
Aluminium (Al)	Tier 2	n/m	not material in this matrix
Total chromium (Cr)	Tier 2	—	—
Hexavalent chromium (Cr-VI)	Tier 2	n/m	not material in this matrix

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)	100	government maximum level
Cadmium (Cd)	—	—
Total arsenic (tAs)	100	government maximum level
Inorganic arsenic (iAs)	n/m	No jurisdiction sets an inorganic-arsenic maximum level for candy; the total-arsenic candy limit (MERCOSUR/Paraguay, 100 ug/kg) bounds the inorganic fraction (iAs <= tAs).
Mercury, total (tHg)	n/m	Sugar, glucose syrup and confectionery fats carry no mercury source, and there is no bioaccumulation or migration pathway in a candy. The 21 CFR 73.85 'Caramel; food use' mercury figure (100 ug/kg) is a purity specification for the caramel COLOUR ADDITIVE, not a limit for caramel candy, and is not applied here. Rebuttable if a routed source reports mercury in confectionery.

Methylmercury (MeHg)	n/m	Methylmercury is the organomercury speciation of mercury and is arithmetically bounded by total mercury (MeHg <= tHg); sugar confectionery carries no mercury source and no methylmercury formation pathway, so any organomercury fraction sits below the total-mercury determination.
Nickel (Ni)	—	—
Tin (Sn)	n/m	No tin source in wrapped/boxed sugar confectionery; tin is a tinplate-can migration pathway only.
Aluminium (Al)	n/m	Aluminium in confectionery derives from the permitted additive aluminium (aluminium-lake colour, EU E173 / US 21 CFR 73), not contamination, and is managed by additive law and by intake against the EFSA/JECFA TWI, not by a per-food contaminant maximum level. No credible regulator sets an aluminium contaminant ML for candy.
Total chromium (Cr)	—	—
Hexavalent chromium (Cr-VI)	n/m	Hexavalent chromium is the Cr(VI) speciation of chromium and is bounded by the total-chromium control (Cr-VI <= total Cr), which is screened for this category; no jurisdiction sets a Cr-VI food maximum level. Corroborating: Cr(VI) is reduced to chromium(III) in the reducing, sugar-rich confection matrix and does not persist as Cr(VI).

4 | Cite this standard

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STATUS AND LICENCE

COMPETING INTERESTS

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.

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/confectionery-candy>. 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/confectionery-candy>.