

Gummies and jelly sweets: HMTc Standard

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heavy metals, food safety, dietary exposure

PUBLICATION HISTORY

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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 Gummies and jelly 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	n/m	not material in this matrix
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	n/m	not material in this matrix

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)	n/m	Gelatin/pectin/sugar gummies and fruit-jelly sweets have no cadmium source or migration route; there is no cocoa and no soil-uptake plant tissue at the confection level. Rebuttable if a routed source reports cadmium in a jelly confection.
Total arsenic (tAs)	100	government maximum level
Inorganic arsenic (iAs)	n/m	No inorganic-arsenic ML for gummies/jelly sweets; the total-arsenic candy limit (100 ug/kg) bounds the inorganic fraction.
Mercury, total (tHg)	n/m	No mercury source and no bioaccumulation or migration pathway in a sugar/gelatin/pectin confection.
Methylmercury (MeHg)	n/m	Methylmercury is the organomercury speciation of mercury and is arithmetically bounded by total mercury (MeHg <= tHg); a gummy/jelly sweet carries no mercury source and no methylmercury formation pathway, so any organomercury fraction sits below the total-mercury determination.

Nickel (Ni)	n/m	Gelatin/pectin/sugar gummies and fruit jellies contain no hydrogenated fat and no nickel source or migration route; no jurisdiction sets a nickel ML for confectionery. Rebuttable if a routed source reports nickel in a jelly confection.
Tin (Sn)	n/m	No tin source in a pouched/wrapped gummy or jelly sweet; the jams/jellies tin limit (250 mg/kg) is a tinplate-can migration limit for canned product, not applicable to non-canned confection.
Aluminium (Al)	n/m	Aluminium in gummies derives from the permitted additive aluminium (aluminium-lake colour, EU E173 / US 21 CFR 73), managed by additive law and intake vs the TWI, not by a per-food contaminant ML.
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 Cr-VI food maximum level exists. Corroborating: Cr(VI) reduces to chromium(III) in the reducing sugar/gelatin confection matrix and does not persist as Cr(VI).

4 | Cite this standard

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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

This briefing is published by the Heavy Metal Tested & Certified (HMTc) program, operated by the Institute of Contaminant Standards. Its statements about government regulations, toxicology, and occurrence are sourced to the cited primary and expert-body records and to the independently maintained Heavy Metal Index; the program's own certification thresholds are not used as evidence for any factual claim made here.

PUBLICATION HISTORY

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

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/gummies-jellies>. 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.