Gummies and jelly sweets: HMTc Standard

Karen Pendergrass · 0000-0002-2348-7259 · Heavy Metal Tested & Certified, Institute of Contaminant Standards

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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.

KEYWORDS

heavy metals, food safety, dietary exposure

PUBLICATION HISTORY

This revision 2026-08.

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	HMTC LIMIT	BASIS
Lead (Pb)	100	government maximum level (Mercosur)
Cadmium (Cd)	n/m	not material in this matrix
Total arsenic (tAs)	100	government maximum level (Mercosur)
Inorganic arsenic (iAs)	n/m	not material in this matrix
Mercury, total (tHg)	n/m	not material in this matrix

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

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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

Pendergrass, K. (2026). *Gummies and jelly sweets: HMTc standard*. Institute of Contaminant Standards.

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References

[1] Mercosur
Binds Pb, tAs.
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.

DATA AVAILABILITY

The works this standard draws on are listed in full in the references above and on the standard 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.

COMPETING INTERESTS

This standard 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.