Hot sauce and chili sauces: HMTc Standard

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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 Hot sauce and chili sauces (Herbs, Spices, Seasonings and Salt), stated as consumed. 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; dried-spice basis discipline)

2 | Master limit table

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

ANALYTE	HMTC LIMIT	BASIS
Lead (Pb)	1,000	government maximum level (GB 2762)
Cadmium (Cd)	1,000	government maximum level (Vietnam)
Total arsenic (tAs)	1,000	government maximum level (Singapore)

Inorganic arsenic (iAs)	100	government maximum level (GB 2762)
Mercury, total (tHg)	50	government maximum level (Vietnam)
Methylmercury (MeHg)	n/m	not material in this matrix
Nickel (Ni)	—	—
Tin (Sn)	n/m	not material in this matrix
Aluminium (Al)	—	—
Total chromium (Cr)	—	—
Hexavalent chromium (Cr-VI)	—	—

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)	1,000	government maximum level (GB 2762)
Cadmium (Cd)	1,000	government maximum level (Vietnam)
Total arsenic (tAs)	1,000	government maximum level (Singapore)
Inorganic arsenic (iAs)	100	government maximum level (GB 2762)
Mercury, total (tHg)	50	government maximum level (Vietnam)
Methylmercury (MeHg)	n/m	Methylmercury is the organomercury speciation of mercury and is arithmetically bounded by total mercury (MeHg <= tHg); a chili/vinegar/water sauce carries no mercury source and no methylmercury formation pathway, and it is bounded by the total-mercury sauce limit.
Nickel (Ni)	—	—

Tin (Sn)	n/m	Hot/chili sauces are sold in glass or plastic bottles, not tinplate cans, so there is no tin source or migration route. Material only for tin-plated canned product.
Aluminium (Al)	—	—
Total chromium (Cr)	—	—
Hexavalent chromium (Cr-VI)	—	—

4 | Cite this standard

Pendergrass, K. (2026). *Hot sauce and chili sauces: HMTc standard*. Institute of Contaminant Standards.

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References

[1] GB 2762
Binds Pb, iAs.
MAXIMUM LEVEL

[2] Vietnam
Binds Cd, tHg.
MAXIMUM LEVEL

[3] Singapore
Binds 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.

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.

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/hot-chili-sauces. 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.

PUBLICATION HISTORY

This revision 2026-08. The full dated record is maintained at https://heavymetalcertified.com/standards/hot-chili-sauces.