Vitamin/mineral supplements: 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 heavy-metal-safety standard for vitamin/mineral supplements in Pet Supplements, evaluated on the supplement as sold (as-packaged concentrate) — dry weight for powders, chews, tablets and capsules, neat liquid for oils and drops; no reconstitution, dilution, or as-fed conversion is applied. 7 of 11 panel analytes publish a numeric limit taken from the strictest applicable government maximum; the remainder are held under mandatory control or a substantiated not-material determination.

1 | How every number on this standard is set

HMTc Method v2.0 (government-limit default), pet-supplement double over-compliance form: the exact cell's only sovereign maximum is an animal-feed instrument, which is disclosed as a floor and never used; every published value is a disclosed read-across to the strictest applicable as-sold child-protective human-food sovereign maximum in the product's native as-sold basis, or a control where no as-sold sovereign value exists. Never occurrence-derived.

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)	10	read-across (Israel)

Cadmium (Cd)	5	read-across (Israel)
Total arsenic (tAs)	50	read-across (India)
Inorganic arsenic (iAs)	20	read-across (EU 2023/915)
Mercury, total (tHg)	4	read-across (Israel)
Methylmercury (MeHg)	≤ tHg	bounded by tHg (reflex speciation)
Nickel (Ni)	250	read-across (EU 2024/1987)
Tin (Sn)	5,000	read-across (India)
Aluminium (Al)	500	read-across (Australia / New Zealand)
Total chromium (Cr)	1,000	read-across (GB 2762)
Hexavalent chromium (Cr-VI)	≤ 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)	10	read-across (Israel); Food for special dietary purpose
Cadmium (Cd)	5	read-across (Israel); Food for special dietary purpose
Total arsenic (tAs)	50	read-across (India); Infant Milk substitute and Infant foods
Inorganic arsenic (iAs)	20	read-across (EU 2023/915); infant formulae, follow-on formulae, food for special medical purposes intended for infants and young children, and young-child formulae placed on the market as powder
Mercury, total (tHg)	4	read-across (Israel); Food for special dietary purpose
Methylmercury (MeHg)	≤ tHg	bounded by tHg (reflex speciation)
Nickel (Ni)	250	read-across (EU 2024/1987); infant/young-child formula, powder, except soy-isolate
Tin (Sn)	5,000	read-across (India); Infant Milk substitute and Infant foods

Aluminium (Al)	500	read-across (Australia / New Zealand); infant formula, follow-on formula, and special medical purpose product for infants other than preterm-infant products
Total chromium (Cr)	1,000	read-across (GB 2762); grains and grain products including cereals and milled grain products
Hexavalent chromium (Cr-VI)	≤ Cr	bounded by Cr (reflex speciation)

4 | Cite this standard

Pendergrass, K. (2026). *Vitamin/mineral supplements: HMTc standard* (Standard No. 10.83138/hmtc.std.18.pet-supplements-vitamin-mineral). Institute of Contaminant Standards. https://doi.org/10.83138/hmtc.std.18.pet-supplements-vitamin-mineral

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References

[1] Israel
Binds Pb, Cd, tHg. Food for special dietary purpose.
READ-ACROSS

[2] India
Binds tAs, Sn. Infant Milk substitute and Infant foods.
READ-ACROSS

[3] EU 2024/1987
Binds Ni. infant/young-child formula, powder, except soy-isolate.
READ-ACROSS

[4] GB 2762
Binds Cr. grains and grain products including cereals and milled grain products.
READ-ACROSS

[5] Australia / New Zealand
Binds Al. infant formula, follow-on formula, and special medical purpose product for infants other than preterm-infant products.
READ-ACROSS

[6] EU 2023/915
Binds iAs. infant formulae, follow-on formulae, food for special medical purposes intended for infants and young children, and young-child formulae placed on the market as powder.
READ-ACROSS

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/pet-supplements-vitamin-mineral. 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/pet-supplements-vitamin-mineral.