# Children's face paint: 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 children's face paint in Infant and Child Personal Care (Ages 0-5), evaluated on finished cosmetic as placed on market (total content, ug/kg of product as sold). 5 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) as applied to a child-scoped cosmetic category: every numeric cell is the strictest applicable sovereign finished-cosmetic maximum in the row's native total-content basis, or a disclosed read-across of a stricter sovereign tier from the same instrument where that instrument writes an adult-market loosening carve-out that HMTc declines to adopt for a product marketed to ages 0-5. No cell is 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) | 1,000 | government maximum level (US-WA) |
| Cadmium (Cd) | 100 | government maximum level (DE) |

| | | |
|---|---|---|
| Total arsenic (tAs) | 500 | read-across (DE) |
| Inorganic arsenic (iAs) | ≤ tAs | bounded by tAs (reflex speciation) |
| Mercury, total (tHg) | 100 | government maximum level (DE) |
| Methylmercury (MeHg) | ≤ tHg | bounded by tHg (reflex speciation) |
| Nickel (Ni) | 10,000 | read-across (South Korea) |
| Tin (Sn) | 3,750,000 | read-across (European Union) |
| Aluminium (Al) | 560,000 | read-across (European Union) |
| Total chromium (Cr) | 50 | read-across (AU) |
| Hexavalent chromium (Cr-VI) | 5 | read-across (European Union) |

## 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 (US-WA) |
| Cadmium (Cd) | 100 | government maximum level (DE) |
| Total arsenic (tAs) | 500 | read-across (DE); cosmetic products in general except theater, fan, or carnival make-up |
| Inorganic arsenic (iAs) | ≤ tAs | bounded by tAs (reflex speciation) |
| Mercury, total (tHg) | 100 | government maximum level (DE) |
| Methylmercury (MeHg) | ≤ tHg | bounded by tHg (reflex speciation) |
| Nickel (Ni) | 10,000 | read-across (South Korea); cosmetic products other than eye makeup or color makeup products |
| Tin (Sn) | 3,750,000 | read-across (European Union); toys (accessible toy material); pacifiers/soothers reached via the EN 1400 soother standard (excluded from the TSD itself, Annex I item 16); EN 71-3 test basis |

| | | |
|---|---|---|
| Aluminium (Al) | 560,000 | read-across (European Union); toys (accessible toy material); pacifiers/soothers reached via the EN 1400 soother standard (excluded from the TSD itself, Annex I item 16); EN 71-3 test basis |
| Total chromium (Cr) | 50 | read-across (AU); drinking water |
| Hexavalent chromium (Cr-VI) | 5 | read-across (European Union); toys (accessible toy material); pacifiers/soothers reached via the EN 1400 soother standard (excluded from the TSD itself, Annex I item 16); EN 71-3 test basis |

## 4 | Cite this standard

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## References

[1] US-WA
Binds Pb.
MAXIMUM LEVEL

[2] DE
Binds Cd, tAs, tHg.
MAXIMUM LEVEL

[3] South Korea
Binds Ni. cosmetic products other than eye makeup or color makeup products.
READ-ACROSS

[4] AU
Binds Cr. drinking water.
READ-ACROSS

[5] European Union
Binds Cr-VI, Sn, Al. toys (accessible toy material); pacifiers/soothers reached via the EN 1400 soother standard (excluded from the TSD itself, Annex I item 16); EN 71-3 test basis.
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/face-paint. 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/face-paint.

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