Processed American cheese

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CORRESPONDENCE

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Abstract

Processed american cheese in the HMI library has 83 reported results for lead, cadmium, total arsenic, inorganic arsenic, total mercury, nickel, chromium, aluminum, tin, antimony, uranium, Co, Cu, Fe, Mn, Zn, V, Se, Ba, Hg, Sr, Ti and Tl from 7 sources. WHO GEMS/Food submissions reported lead in processed american cheese as sold from 302 results in 2 reporting regions, with subgroup medians below 50 µg/kg, mostly non-detects. In the US Total Diet Study, processed american cheese as sold had a median lead result below 4 µg/kg across 3 composites from 2018-2020.

1 | Processed american cheese overview

Spungen et al. 2024 reported lead at 3.4 µg/kg (mean) and cadmium at 2.8 µg/kg (mean) in processed american cheese as sold from all samples.[3] Crupi et al. 2022 reported total arsenic at 1 µg/kg (mean ± 1 SD) in processed american cheese as sold from retail, markets in Sicily.[7]

For a buyer the practical points are the form bought, the basis a result is reported on, where the processed american cheese came from and the laboratory's reporting limit. Testing finds contamination but does not r emove it.

2 | What counts as processed american cheese

This page covers processed american cheese as sold (83 results).[1,2,3,4,5,6]

Results stay on the basis each source reports: as sold or fresh weight, dry weight, or unstated. Dry-weight, as-sold and unstated results are never pooled, and no moisture conversion is applied.

3 | How metals reach processed american cheese

No study in the library compared processed american cheese from contaminated and ordinary settings, so the routes by which metals reach it are not measured here.

4 | Which forms and regions measured lower

The HMI reference for lead in processed american cheese as sold pools 37 subgroup units from 2 sampling families, with a median of below 6.3 µg/kg and a middle half spanning below 4 (lower quartile) and between 6.3 and 19 µg/kg (upper quartile).[1,2] for cadmium in processed american cheese as sold, the reference median was between 2.4 and 2.5 µg/kg, with a middle half from below 2.4 to between 2.5 and 3.5 µg/kg across 34 units.[1,2] For total arsenic in processed american cheese as sold, the reference median was between 5.9 and 9.17 µg/kg, with a middle half from between 2.31 and 6.66 to between 8.3 and 20 µg/kg across 18 units.[1,2]

5 | Processing, cooking and preparation

No processing study for metals in this food is in the library yet.

6 | Mitigation for processed american cheese

Lot testing against the applicable limit is the check that can be verified.

7 | Trade-offs and limits of controls

Metals do not move together, so a lot that passes a lead limit says little about cadmium, arsenic or nickel unless those are tested as well.

8 | Testing processed american cheese for metals

Results depend on the method and its reporting limit. Reporting limits for lead ranged from 4 µg/kg (FDA Total Diet Study) to 3,000 µg/kg (WHO GEMS/Food), so a non-detect from a less sensitive method says much less.[1,2] Reporting limits for cadmium ranged from 1 µg/kg (FDA Total Diet Study) to 1,000 µg/kg (WHO GEMS/Food), so a non-detect from a less sensitive method says much less.[1,2] Reporting limits for total arsenic ranged from 3 µg/kg (FDA Total Diet Study) to 100 µg/kg (WHO GEMS/Food), so a non-detect from a less sensitive method says much less.[1,2]

A useful lot result names the form, the basis and a quantification limit well below the limit that applies.

9 | Buying and verifying processed american cheese

No maximum level for metals in processed american cheese was verified from primary text for this page; buyers should confirm the limit that applies in the destination market.

10 | Exposure from processed american cheese

No source in the library converted processed american cheese concentrations into a verified estimate of intake for a defined population. Concentrations describe the food, not individual risk.

11 | Evidence review and remaining gaps

Every source record that names processed american cheese was decided on its content: 7 occurrence extracted, 7 records in all. The occurrence table renders every extracted result; held values remain visible with their reason.

References identify the sources used in these answers. The Sources index preserves additional discovery links; inclusion there does not mean a source has been reviewed for this assessment. Corrections, completed searches, new direct evidence and changes in requirements should reopen the relevant answer.

12 | Processed american cheese FAQs

The library reports lead, cadmium, total arsenic, inorganic arsenic, total mercury, nickel, chromium, aluminum, tin, antimony, uranium, Co, Cu, Fe, Mn, Zn, V, Se, Ba, Hg, Sr, Ti and Tl in processed american cheese, most often lead, cadmium and total arsenic.[1,2,3,4] WHO GEMS/Food submissions reported lead in processed american cheese as sold from 302 results in 2 reporting regions, with subgroup medians below 50 µg/kg, mostly non-detects.[1]

Inorganic arsenic, the more toxic form, was measured in 1 result from 1 source, far fewer than total arsenic.[6]

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STATUS AND LICENCE

COMPETING INTERESTS

Editorially reviewed in-house; no external peer review has been completed on this ingredient profile. Published as an institutional technical report with its review state tracked on the article page. Released under CC BY 4.0.

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DATA AVAILABILITY

Every source behind this ingredient profile is listed with its own source record at https://heavymetalindex.com/ingredients/processed-american-cheese.

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This revision 2026-10-22. The full dated record is maintained at https://heavymetalindex.com/ingredients/processed-american-cheese.