Canned mushrooms

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CORRESPONDENCE

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Abstract

Canned mushrooms in the HMI library has 54 reported results for lead, cadmium, total arsenic, total mercury, nickel, chromium, aluminum, tin, uranium, Co, Cu, Fe, Mn and Zn from 7 sources. WHO GEMS/Food submissions reported lead in canned mushrooms as sold from 55 results in 2 reporting regions, with subgroup medians below 13 µg/kg, mostly non-detects. canned in the us total diet study canned mushrooms had a median lead result below 4 µg/kg across 1 composite from 2020.

1 | Canned mushrooms overview

Dabeka et al. 1995 reported lead at 71.6 µg/kg (median) in canned mushrooms from 5 city composites.[6] Spungen et al. 2024 reported cadmium at 1.8 µg/kg (mean) in canned mushrooms from all samples.[4]

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

2 | What counts as canned mushrooms

This page covers canned mushrooms in 2 forms kept separate in every comparison: canned mushrooms (49 results) and canned mushrooms as sold (5 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 canned mushrooms

No study in the library compared canned mushrooms 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 canned mushrooms as sold pools 8 subgroup units from 1 sampling family, with a median of between 1.27 and 3.65 µg/kg and a middle half spanning below 1.77 (lower quartile) and between 3.65 and 12.3 µg/kg (upper quartile).[1] for total arsenic in canned mushrooms as sold, the reference median was between 4.13 and 7.22 µg/kg, with a middle half from between 3.55 and 5.3 to between 7 and 13 µg/kg across 10 units.[1]

In one study, lead across 6 groups of canned mushrooms ranged from 42.7 µg/kg (Halifax 1986) to 106 µg/kg (Toronto 1988); the lowest is the lowest observed in that study, not an established sourcing preference.[6]

5 | Processing, cooking and preparation

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

6 | Mitigation for canned mushrooms

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 canned mushrooms for metals

Results depend on the method and its reporting limit. Reporting limits for lead ranged from 2 µg/kg (WHO GEMS/Food) to 90 µg/kg (WHO GEMS/Food), so a non-detect from a less sensitive method says much less.[1] Reporting limits for cadmium were 1 µg/kg where sources stated them.[2] Reporting limits for total arsenic ranged from 3 µg/kg (FDA Total Diet Study) to 50 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 canned mushrooms

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

10 | Exposure from canned mushrooms

No source in the library converted canned mushrooms 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 canned mushrooms 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 | Canned mushrooms FAQs

The library reports lead, cadmium, total arsenic, total mercury, nickel, chromium, aluminum, tin, uranium, Co, Cu, Fe, Mn and Zn in canned mushrooms, most often lead, cadmium and total arsenic.[1,2,3,4] WHO GEMS/Food submissions reported lead in canned mushrooms as sold from 55 results in 2 reporting regions, with subgroup medians below 13 µg/kg, mostly non-detects.[1]

In one study, lead across 6 groups of canned mushrooms ranged from 42.7 µg/kg (Halifax 1986) to 106 µg/kg (Toronto 1988); the lowest is the lowest observed in that study, not an established sourcing preference.[6]

References

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STATUS AND LICENCE

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COMPETING INTERESTS

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DATA AVAILABILITY

Every source behind this ingredient profile is listed with its own source record at https://heavymetalindex.com/ingredients/canned-mushrooms#sources.

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