Test With a Kit Not Your Kid

Article collated by Claude AI at the request of Elizabeth O'Brien aka "Grandma Lead", to showcase the remarkable contribution to lead-safety of Eric Ritter, Secretary of The LEAD Group Committee, Australia, since October 2024

This June 2026 issue of LEAD Action News vol 24 no 1 takes our readers across the Pacific to look at an American innovation that has been quietly changing how families, contractors and advocates detect lead in 2025–2026. The product is called FluoroSpec, made by Eric Ritter of Fluoro-Spec Inc. in East Setauket, New York. The website is detectlead.com.

What is remarkable for our advocate readership is not the kit itself, but the toolkit Eric has built around it: a free 11,683-product lead database, a 50-year NHANES visualisation, a ZIP-code risk screener, a dietary lead simulator, a crowdfunded laboratory testing programme called the Lead Lottery, and a 98-page educational manual called the L·E·A·D Framework — all free, all browser-based, and all backed by open data sources including the FDA, the EU Safety Gate, the NYC Department of Health and California's AB-899 mandatory disclosure law.

A Toxic Substances Control Act (TSCA) certification is a mandatory declaration required by US Customs and Border Protection (CBP) and the Environmental Protection Agency (EPA) for all chemical substances imported into the United States. It ensures that the chemicals comply with EPA regulations. In January 2025 the US EPA granted FluoroSpec the first-ever TSCA Low Volume Exemption (L-25-0206) for a fluorescence-based consumer lead detection chemistry. This regulatory milestone matters for advocates outside the US too, because the same chemistry is now legally importable into many jurisdictions. The chemical Methylammonium Bromide has been looked at by the US EPA for safety and they determined it can be used as a lead testing kit.

The LEAD Group Inc is honoured to feature Eric's work this issue. With Eric's permission, the articles that follow are adapted from www.detectlead.com - and we have introduced a new column — "Lead Safety Tool of the Year" — beginning with the ZIP Screener.

Letters to the Editor are very welcome and can be sent from https://leadsafeworld.com/about-us/contact-us/ — we particularly want to hear from readers outside the US and Australia about whether tools like FluoroSpec's or The LEAD Group's Lead Test Kits from https://leadsafeworld.com/shop would be useful in your country.

Eric Ritter and the FluoroSpec Story

ABOUT THE FOUNDER OF DETECTLEAD.COM

Photo: Eric Ritter, founder of Fluoro-Spec Inc., East Setauket, New York. Courtesy of detectlead.com.

Adapted with permission from "A letter from Eric Ritter" and the About Us page of detectlead.com.

[URLs: https://detectlead.com/blogs/news/welcome-to-detectlead-a-letter-from-eric-ritter and https://detectlead.com/pages/about- us]

Eric Ritter is an unusual figure in the American lead-testing market: not a regulator, not a researcher, he doesn't have a lead exposed child, but is a manufacturer who has spent five years building consumer detection tools — and who has now made over 300,000 swab kits and developed consumer soil testing kits based on sodium rhodizonate. He has also consulted with hundreds of parents. He noticed the same thing The LEAD Group has been arguing in these pages since 1993: that most families only test for lead after a child has already been poisoned. He wanted to flip that order.

When he learned about Methylammonium Bromide, how it can transform lead into a fluorescent perovskite crystal he saw the oppertunity. A low cost way to identify lead, that flashy and can do stuff swabs simply cant. Finding dust, seeing where the lead literally is, it was a game changer. After helping the folks at Lumetallix develop a formula for their first consumer lead testing kit, importing and selling it, something became apparent. It would take an advertising effort to share this method with the world and that the product could be made better, more sensitive, more of it and for a lower cost. The FluoroSpec kit is the result. It is the same fluorescence-based detection method, originally developed by university researchers, that Eric refined into a commercial product, twice. Lead, when sprayed or dripped with the reagent and viewed under a 365-nanometre UV light, glows bright green — on ceramics, on paint, on dust, on jewellery, on cookware. The chemistry underlying the kit is methylammonium bromide perovskite, and in January 2025 the US EPA approved it under TSCA Low Volume Exemption L-25-0206 — the first such exemption ever granted for a consumer fluorescence-based lead test.

The kit retails at US$75 for a Full Kit (drip bottle, spray bottle, UV flashlight, reference card and ring) and is good for approximately 3,600 individual tests. But what struck the editor-in-chief of this newsletter when reading through detectlead.com was not the product. It was the toolkit Eric has built around it for free use by the public — described in the articles that follow.

But if you have seen his Instagram - https://www.instagram.com/ericeverythinglead/ - there's always deals and the entire concept is that this SHOULD be an easy problem to solve.

Eric's stated philosophy on the website is in three lines:

"Test with a kit — not a kid."

"If we can see it, we can fix it."

"Practical answers without fear or hype."

These are values readers of LEAD Action News will recognise instantly.

The FluoroSpec Full Kit: drip bottle, spray bottle, 365-nanometre UV flashlight, reference card and ring. Photo courtesy of Fluoro-Spec Inc.

Lead Safety Tool of the Year

The ZIP Risk Screener at detectlead.com is our first ever Lead safety tool of the year because it is the tool with the most obvious international replication potential.

THE ZIP RISK SCREENER

Tool URL: https://detectlead.com/pages/zip-screener

What it does: Enter a 5-digit US ZIP code and receive a 0–100 composite risk score in approximately four seconds.

Inputs the tool uses:

• Percentage of pre-1978 housing in the ZIP (the lead-paint era cutoff in the US).

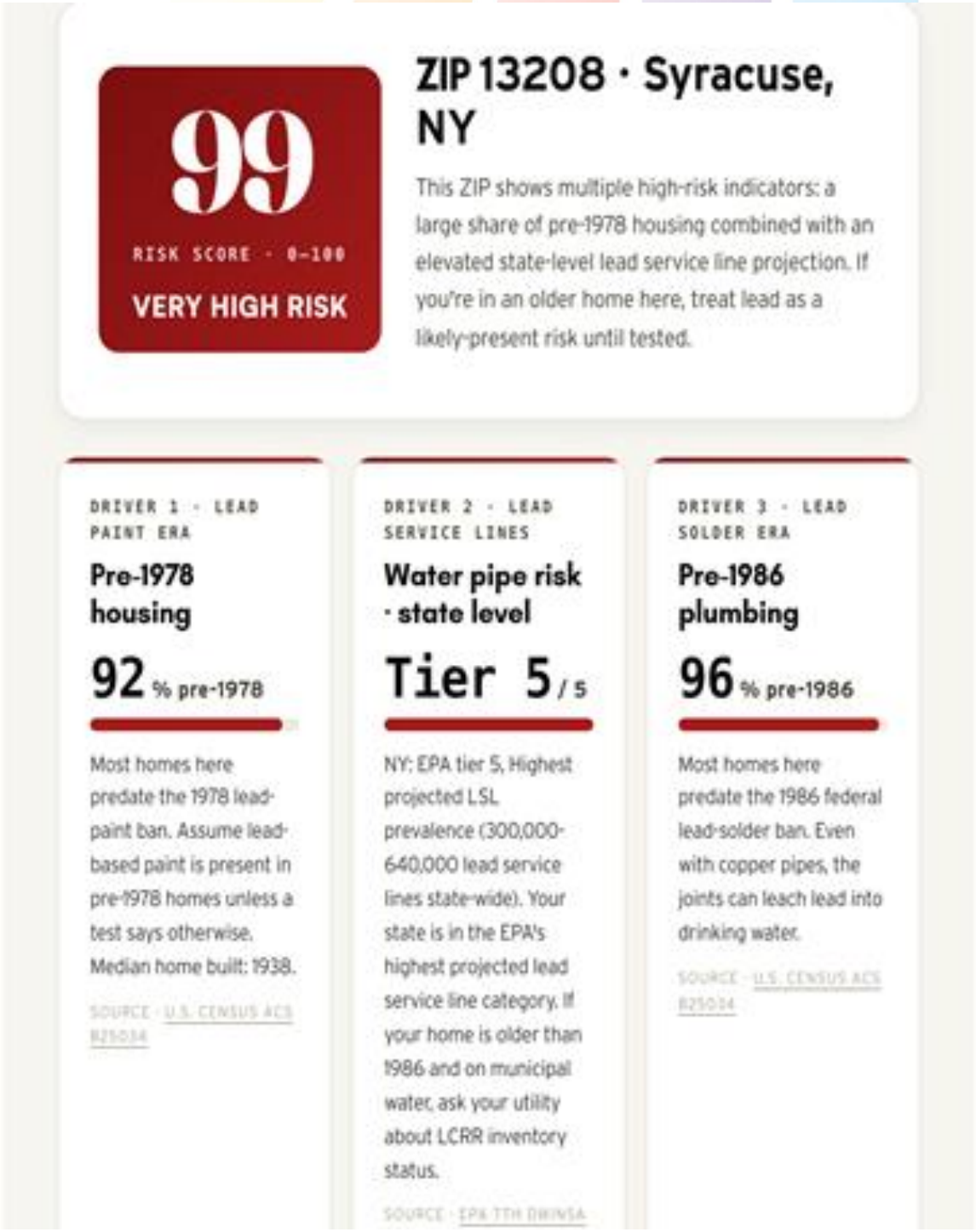
• State-level water-pipe risk drawn from the EPA's 2025 Lead Service Line Replacement projections.

• Percentage of pre-1986 plumbing (the pre-lead-solder-ban era in the US).

What you get: A neighbourhood-level risk score, with clear language reminding the user that individual homes vary, and that confirmation requires physical testing.

Why LEAD Action News (LAN) readers care: This is one of the very few public tools that combines census data with utility data to produce a meaningful screening number. The methodology is transparent and could be replicated in Australia using ABS housing-age data and state water-utility records, or in the United Kingdom using equivalent census variables.

A challenge to readers: If you live outside the US and would like to see a ZIP-equivalent screener for your country, write a Letter to the Editor - from https://leadsafeworld.com/about-us/contact-us/ — and we will pass requests to Eric and explore the possibility of a joint methodology paper.



The ZIP Risk Screener at detectlead.com, showing a high-risk result for ZIP 13208 (Syracuse, New York): risk score 99 of 100, driven by pre-1978 housing (92%), state-level water-pipe risk (EPA Tier 5 of 5) and pre-1986 plumbing (96%). Screenshot courtesy of detectlead.com.

Maybe the next Lead Safety Tool of the Year should be: The Baby Food Lookup — 17,000+ lot-level tests from California's AB-899 disclosure law.

Lead News 2025 Year in Review

CLOSER TO ZERO FINALISED, AB-899 LIVE, TSCA LVE FOR MABR

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/lead-news-2025-year-in-review-closer-to-zero-finalized-ab-899-live-tsca-lve-for-mabr]

For thirty-three years this newsletter has documented the slow march of US lead-safety regulation from advisory frameworks toward enforceable rule-of-the-road. Eric Ritter of detectlead.com calls 2025 the year that march finally became binding. Four developments deserve a place in the LEAD Action News record.

1. FDA Closer to Zero — finalised 6 January 2025. Action levels of 10 parts per billion (ppb) of lead for most baby foods, and 20 ppb for root vegetables, became legally enforceable after three years in draft. This is the first US analogue to Australia's ANZ Food Standards baby-food limits, though arguably more stringent on a per-category basis.

2. California AB-899 — live 1 January 2025. Every baby food sold in California must now publish lot-level heavy-metal testing data accessible via a QR code on packaging. This is the world's first mandatory disclosure law of its kind. Readers will find a dedicated article on AB-899 later in this issue, plus a tour of the resulting data via FluoroSpec's Baby Food Lookup.

3. TSCA Low Volume Exemption L-25-0206. The US EPA, in January 2025, approved methylammonium bromide (MABr) perovskite chemistry for manufacture under 10,000 kilograms per year for the specific purpose of consumer lead detection. This is the regulatory clearance that permits FluoroSpec to be sold legally as a consumer product in the United States — and, by virtue of TSCA recognition, opens the chemistry to import under many international regimes.

4. NIOSH telecom cable findings. The US National Institute for Occupational Safety and Health issued formal findings on lead exposure for telecommunications workers handling legacy lead-sheathed cables — a story first broken by the Wall Street Journal in 2023 and covered in our article later in this issue.

Eric Ritter writes that 2025 is the year fragmented frameworks became "rule-of-the-road." For advocates outside the US, the practical question is: which of these four developments is most replicable in your jurisdiction? Letters to the Editor are very welcome and can be sent from https://leadsafeworld.com/about-us/contact-us/

2024 EPA Integrated Science Assessment

THE 10-YEAR UPDATE ON WHAT LEAD DOES TO THE HUMAN BODY

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/the-2024-epa-integrated-science-assessment-for-lead-the-10-year-science-update]

Every ten years the US Environmental Protection Agency publishes a comprehensive "Integrated Science Assessment" (ISA) summarising the strongest available evidence on a single pollutant. The 2024 ISA for lead is the most up-to-date scientific synthesis our readers can cite. Eric Ritter's detectlead.com summary picks out the findings most relevant to advocate use.

Strengthened cardiovascular evidence in adults. Recent cohort studies have firmed up the link between low- level lead exposure and cardiovascular disease in adults, particularly hypertension and ischaemic heart disease. Meaningful risk now appears at blood lead levels as low as 2 micrograms per decilitre (µg/dL).

Confirmed dose–response for childhood neurodevelopment. The ISA confirms the dose–response pattern at blood lead levels of 0–10 µg/dL with no apparent threshold. There is no safe level of lead exposure for children or adults (aside from zero) — a refrain readers of LEAD Action News have been hearing for three decades.

Expanded coverage of immune and renal effects, and environmental distribution. The ISA also expands on lead in soil, water and dust pathways, and on emerging research into immune system and kidney effects.

A standout sentence in Eric's summary: "Essentially every American alive between roughly 1940 and 1985 carried a blood lead level that today's CDC would classify as elevated." Average childhood blood lead in the late 1970s reached 12–17 µg/dL — far above today's 3.5 µg/dL reference level. The same is true of Australians who grew up before the leaded-petrol phase-out completed in 2002.

Why this matters for advocacy: the ISA gives us a citable scientific basis for arguing that adult lead burden — not just childhood exposure — is a present-day public health issue. Readers will find this connected to the Lanphear mortality study in the next article.

Low-Level Lead and Adult Mortality

THE LANPHEAR ET AL. (2018) STUDY EXPLAINED

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/low-level-lead-exposure-and-mortality-in-u-s-adults-a-deep-dive]

In 2018 Bruce Lanphear and colleagues published a study in The Lancet Public Health that quietly reframed the lead conversation. They linked blood lead levels in US adults to all-cause mortality, cardiovascular mortality and ischaemic heart disease mortality — and found a dose–response relationship at levels far below any prior threshold.

The key findings, in plain English:

• Meaningful increased mortality risk appears at approximately 2 µg/dL — well below previous CDC thresholds of 5 or even 10 µg/dL.

• Modern US adults typically have blood lead levels under 1 µg/dL because of the leaded-petrol phase-out, but the cumulative damage from earlier exposure persists.

• Lead raises blood pressure primarily through neurological mechanisms, disrupting calcium-dependent regulation of vascular tone.

• Lead-related deaths are almost always coded as cardiac events rather than as lead poisoning, which is why population mortality statistics fail to flag them.

Eric Ritter draws a clear policy conclusion from the study: individual action — identifying and removing exposure sources — is achievable and impactful. Mass distribution of detection tools, he argues, can bend population-level statistics positively because every household that finds and removes a lead exposure source slightly reduces the cumulative dose.

For LEAD Action News readers, the practical takeaway is that the Lanphear study is the citation to use when arguing that adult lead burden is a present, measurable mortality risk — not an historical concern.

The 2021 CDC Blood Lead Reference Value Update

5 µg/dL → 3.5 µg/dL — AND WHAT COMES NEXT

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/the-2021-cdc-blood-lead-reference-value-update-5-µg-dl-3-5-µg-dl]

In October 2021 the US Centers for Disease Control and Prevention (CDC) dropped the blood lead reference value from 5 µg/dL to 3.5 µg/dL. The reference value is the threshold above which a child is identified as having an elevated blood lead level for clinical and public health follow-up.

The reduction was based on the 97.5th percentile of blood lead levels in the National Health and Nutrition Examination Survey (NHANES) — a moving target as US population lead levels decline. This means the reference value is statistical, not toxicological: it identifies the most-exposed children, not a safe level.

For Australian readers, the equivalent figure is the National Health and Medical Research Council's "investigation level" — currently 5 µg/dL. The LEAD Group has consistently argued in these pages that Australia should follow the CDC down. The 2021 update strengthens our case.

Eric Ritter's post on detectlead.com makes one further point that is worth repeating: the reference value is not a safe level. It is the level at which intervention is recommended. The actual scientific evidence indicates no safe level of lead exposure. The reference value is a triage tool, not a target.

California AB-899 Baby Food Disclosure

ONE YEAR IN — WHAT WE HAVE LEARNED

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/california-ab-899-baby-food-heavy-metal-disclosure-one-year-in]

California Assembly Bill 899 took effect on 1 January 2025. It is the world's first law requiring baby-food manufacturers to publish lot-level heavy-metal testing data — lead, arsenic, cadmium and mercury — accessible via a QR code printed on every package sold in the state.

After eighteen months of operation, the data is now substantial. Over 17,000 individual lot tests have been published. Eric Ritter's team has aggregated these into the FluoroSpec Baby Food Lookup (covered in the next article), and several patterns are already clear:

• Detectable lead in baby food is almost always from soil and water contamination of crops, not from pesticides or industrial contamination of the food.

• Organic certification does not predict lower lead levels. Some organic brands have weighted-average lead concentrations several times higher than conventional competitors.

• Whole-grain formulations do not predict lower lead either. Rice cereals (whole-grain or refined) carry elevated arsenic regardless of brand.

• Brand-level variation is much larger than category-level variation. The data shows that brand choice matters more than food type.

The worst performer in the database to date is reportedly the brand Yumi, with a weighted average of approximately 42 ppb lead across tested lots. This is a finding that would have been impossible to make before AB-899 existed.

In Australia, The LEAD Group believes ANZ Food Standards should adopt a similar mandatory disclosure model. We welcome member input on this question, via Letters to the Editor which can be sent from https://leadsafeworld.com/about-us/contact-us/

The Baby Food Lookup Tool

17,000+ LOT-LEVEL TESTS, SEARCHABLE BY BRAND

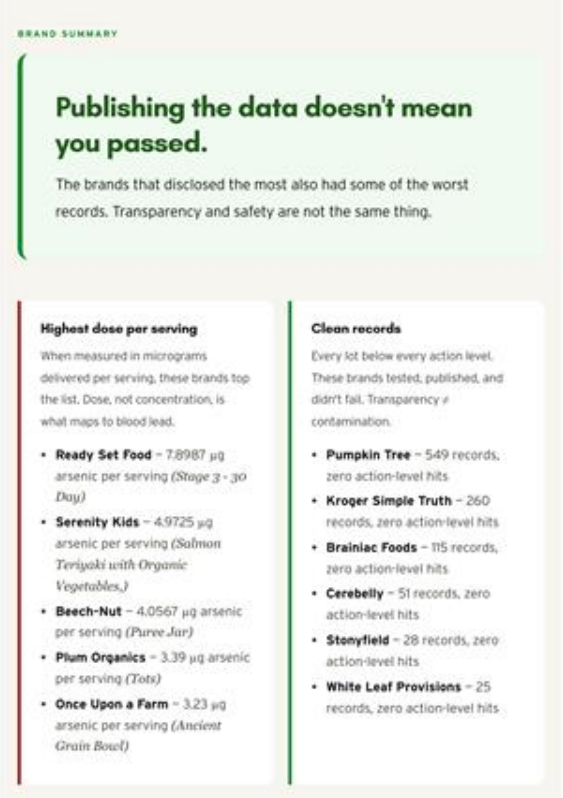
Adapted with permission from detectlead.com.

[Tool URL: https://detectlead.com/pages/babyfood-lookup]

FluoroSpec's Baby Food Lookup is a free, browser-based search tool that lets parents query the heavy-metal testing results published under California's AB-899 law. Search by brand or product, and the tool returns a sortable table of all available test results with the lead, arsenic, cadmium and mercury concentrations measured in each lot, colour-coded by severity.

The tool currently aggregates over 17,000 individual sample results. It is designed to be used by parents, not regulators — so the interface is searchable, sortable, and includes plain-English explanations of what the numbers mean.

The lookup also computes weighted-average lead concentrations by brand, allowing parents to compare manufacturer performance. This is a feature that AB-899 itself does not require, but that the public good benefits from.



For LAN readers: this is the tool we hope will be featuring as the next Tool of the Year (2027). Letters to the Editor are very welcome and can be sent from https://leadsafeworld.com/about-us/contact-us/ with any specific brand or product queries that should be tested against the lookup.

The Baby Food Lookup brand summary: brands ranked by highest dose per serving alongside brands with clean records across every published lot. Screenshot courtesy of detectlead.com.

NHANES at 50 Years

THE VISUALISATION EVERY LEAD-SAFETY ADVOCATE SHOULD BOOKMARK

Adapted with permission from detectlead.com.

[Tool URL: https://detectlead.com/pages/nhanes]

The US National Health and Nutrition Examination Survey (NHANES) has been measuring blood lead levels in representative samples of the US population since 1976. Eric Ritter's team has compiled fifty years of NHANES data into a single set of six interactive charts spanning approximately 100,000 individual records.

The visualisation is licensed Creative Commons Attribution 4.0, which means LEAD Action News can reproduce it directly with attribution. Eric's team also publishes the underlying data as a downloadable CSV.

The standout charts for advocate use:

• "Lifetime arc" — three survey periods (1976–80, 1988–94, 2017–18) overlaid on the same age axis. The chart shows the recurring pattern of childhood peaks, adult plateaus and late-life upticks (caused by lead leaching out of aged bone) while absolute concentrations decline over time.

• "Cardiovascular mortality wave" — peaking in the 1970s and 1980s, attributable to leaded-petrol exposure.

• "Dementia wave" — currently emerging among the 1945–1965 birth cohort, who are now in their seventies.

This is the chart most relevant to Australian advocacy: the same generation is alive here, and the same risk applies.

The methodology applied is what Eric calls the "Integrated Lead Burden Model" — a way of estimating cumulative lifetime exposure from blood-level snapshots. The headline finding: "Older Americans don't have more lead because they're older. They have more lead because they grew up with it."

For LAN readers, this is the citation to use when arguing that today's elderly population, in any country with a 20th-century leaded-petrol history – that is, every country - is still living with the consequences.

The Lead Database

11,683 PRODUCTS. 66,049 MEASUREMENTS. FREE TO SEARCH.

Adapted with permission from detectlead.com.

[Tool URL: https://detectlead.com/pages/lead-database]

The detectlead.com Lead Database is probably, the largest publicly accessible database of consumer-product heavy-metal testing results in the world. It aggregates results from nine open-license sources into a single searchable interface.

Current scope:

• 11,683 unique consumer products.

• 66,049 individual measurements.

• Four heavy metals (lead, arsenic, cadmium, mercury), normalised to parts per billion.

• Thirteen categories.

The thirteen categories, with current entry counts, are: baby food (1,002), spices (2,085), cookware (2,340), cosmetics (1,542), supplements (840), toys (1,372), electronics (753), paint (500), jewelry (369), candy (297), religious and ceremonial items (122), vapes (41), and food other (420).

Source contributors include the US FDA, the US CPSC, the EU Safety Gate rapid alert system, the NYC Department of Health and Mental Hygiene's product survey, the King County (Washington) hazardous waste program, and California's AB-899 disclosures.

Each entry links back to its original source, which means readers can verify any individual result independently. This is a level of editorial transparency rarely seen in consumer-product testing databases.

For LAN readers, the practical use is this: when a member writes in asking whether a specific product they own (a vintage Pyrex bowl, a brand of turmeric, a costume necklace) has been tested for lead, the Lead Database is now the first place to look.

The Dietary Lead Simulator

BLOODLEADCALCULATOR.COM — TRANSLATING PPB INTO MICROGRAMS PER DAY

Adapted with permission from detectlead.com.

[Tool URL: https://bloodleadcalculator.com]

The Dietary Lead Simulator is a separate site that detectlead.com operates: bloodleadcalculator.com. It is the tool we have been asked for most often by readers — a way to translate "X ppb of lead in this food" into "Y micrograms of lead per day in my child."

How it works. The user logs their typical diet — foods consumed, serving sizes — and selects an age category (adult or child). The tool then computes daily lead intake in micrograms per day, using lead concentrations drawn from the FDA Total Diet Study, peer-reviewed studies, and the FluoroSpec Lead Database. It also estimates the resulting steady-state blood lead level using the Carlisle pharmacokinetic model.

Coverage. The tool currently incorporates 1,343 individual foods, each with a lead concentration value attached. It also accounts for non-food exposure sources, so users can layer drinking-water lead, paint dust and other exposures into the same model.

Why this matters. Until tools like this existed, the gap between data and behaviour change was unbridgeable. A parent reading that turmeric averages 200 ppb lead does not know whether the family teaspoon-per-week dose matters. The Dietary Lead Simulator answers that question in plain numbers.

For Australian readers, the food database is US-weighted, but the tool accepts custom entries. We welcome reader feedback via Letters to the Editor which can be sent from https://leadsafeworld.com/about-us/contact-us/ on whether to commission an Australian-specific version with FSANZ data.

Prenatal Vitamins Containing Lead

A DEVASTATING FINDING HIDDEN IN THE SUPPLEMENT AISLE

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/prenatal-vitamins-containing-lead]

Of all the categories in the detectlead.com Lead Database, none is more troubling than prenatal vitamins. These are products specifically marketed to pregnant women — the most lead-sensitive population in any country — and a meaningful fraction of them contain measurable lead.

The mechanism is well-understood: many prenatal supplements derive their calcium from oyster shell or bone meal, both of which naturally accumulate environmental lead. Other supplements derive minerals from soil- extracted compounds where lead is a co-occurring contaminant. Manufacturers are not required to test for lead before sale, and rarely do.

The article documents specific brand-level findings. The LEAD Group makes no recommendation here, but readers are encouraged to use the Lead Database to look up any prenatal product before purchase, and to ask the manufacturer for a Certificate of Analysis showing heavy-metal testing.

For LAN advocates, this article is one of the more powerful ones in this issue, because it cuts directly against the trust that pregnant women place in supplement marketing. The argument is not "supplements are bad" — it is "supplements should be tested, and the testing should be public."

Lead Levels in Bottled Water

WHEN "BOTTLED" DOES NOT MEAN "SAFER"

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/lead-levels-in-bottled-water-a-deep-dive]

For many families, switching from tap to bottled water is an instinctive response to lead concerns. Eric Ritter's investigation into bottled water lead concentrations finds that the instinct is often misplaced.

Bottled water in the US is regulated by the FDA, not the EPA. The FDA action level for lead in bottled water is 5 ppb, while the EPA action level for tap water under the Lead and Copper Rule is also 15 ppb at the 90th percentile (with a 10 ppb threshold proposed under the LCR Improvements). In practice, however, well-run municipal water systems often deliver water with non-detectable lead, while some bottled brands have repeatedly tested above 1 ppb.

The article tabulates several major brands by published test results. Where municipal water is properly treated and the plumbing is post-1986, tap water is often the cleaner choice. Where the home contains pre-1986 plumbing, the story flips — but the solution is not to switch to bottled, it is to run the cold tap for 30 seconds before drinking, the single most effective free intervention available.

For Australian readers, the equivalent message is to check the age of plumbing and to follow the run-the-tap protocol where the home was built before the 2003 lead-solder phase-out.

Lead in Ammunition

THE SINGLE BIGGEST UNREGULATED DOMESTIC LEAD SOURCE

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/lead-in-ammunition-the-single-biggest-unregulated-domestic-lead-source]

In the US, the manufacture of lead ammunition is exempt from the Toxic Substances Control Act under a specific statutory carve-out. The result, as Eric Ritter documents in this article, is that ammunition manufacture and disposal now emits more environmental lead than any other regulated industry combined.

The numbers are striking. Annual US production of lead bullets and shotshells exceeds tens of millions of pounds. Most of this lead is ultimately deposited in soil at shooting ranges, in wetlands frequented by waterfowl hunters, or in carcasses of game animals consumed by humans and scavenging birds (including the endangered California condor).

Australian readers will recognise this pattern. The LEAD Group has campaigned for years against lead shot in wetlands, and this newsletter has featured ongoing Australian lead shot recovery operations (most recently in LANv23n3, "Current Lead Shot Recovery Operations in Australia"). The Volcano Art Prize 2026 features entries from Green Range and Lead Pro Aus — the two Australian companies actively recovering spent lead from shooting ranges.

The US story is large but the Australian story is more tractable because of our smaller industry and stronger general firearms regulation. The link to LAN's ongoing campaigning on this issue is direct, and we welcome member input via Letters to the Editor which can be sent from https://leadsafeworld.com/about-us/contact-us/

Lead-Sheathed Telecom Cables

THE WSJ INVESTIGATION, NIOSH FINDINGS, AND EPA RESPONSE

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/lead-sheathed-telecom-cables-the-wsj-investigation-niosh-findings-epa-response]

In July 2023 the Wall Street Journal published a multi-part investigation revealing that thousands of miles of legacy lead-sheathed telecommunications cabling were still in place across the United States — beneath cities, in lakebeds, suspended overhead in residential neighbourhoods. The cables were laid by AT&T and Bell predecessors between the 1880s and the 1960s. Many are leaching lead into surrounding soil and water.

The detectlead.com article tracks the regulatory response: the NIOSH investigation into worker exposure (formal findings issued in late 2025), the EPA's preliminary risk assessment, and the litigation that telecom carriers are now facing. As of the time of writing in 2026, no broad remediation program has been announced.

For Australian readers, we already know from LEAD Action News vol 23 no 4 "Victorian Lead Risk Work Notification Compliance and Workers Compensation Case Study" at https://leadsafeworld.com/wp-content/uploads/2026/05/LANv23n4-04.pdf - the answer to the question as to whether Telstra's legacy infrastructure includes any equivalent lead- sheathed cabling, is a definitive **YES**. The LEAD Group welcomes Letters to the Editor - which can be sent from https://leadsafeworld.com/about-us/contact-us/ - from anyone else who has worked on lead-sheathed cable removal from Australian or any other country's telecommunications infrastructure.

Lead in Toys

FROM THE 2007 MATTEL RECALLS TO THE CPSIA AND BEYOND

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/lead-in-toys-from-the-2007-mattel-recalls-to-the-cpsia-and-beyond]

In August 2007 Mattel recalled approximately 1.5 million Fisher-Price toys for excess lead paint, followed by a recall of more than 18 million additional toys later that year. The recalls were the largest toy safety event in US history and triggered the Consumer Product Safety Improvement Act (CPSIA) of 2008.

The CPSIA established a 100 parts per million lead limit on any accessible component of a children's product. This is the strictest such standard in the world. It applies to all imported toys, all domestic toys, and any accessory marketed to children under 12 years of age.

Despite the CPSIA, the US Consumer Product Safety Commission still issues several dozen toy recalls per year, almost always identifying imports as the source. The detectlead.com article documents specific 2024 and 2025 recalls. Items most frequently recalled include vintage Fisher-Price reissues, die-cast metal cars, painted wooden blocks, teethers, and costume jewelry sold in the toy aisle.

The LEAD Group has campaigned in past LANs (LANv1n2 1993, "Lobbying the peak body of the developed nations the OECD" at https://lead.org.au/lanv1n2/lanv1n2-9.html ; LANv22n1 2024, "Time to Check Blood Lead Levels" at https://leadsafeworld.com/lanv22n1-contents/lanv22n1-04-children-time-to-check-blood-lead-levels/) for stronger lead-safety governance globally, national regulations and national blood lead surveys (to determine where further lead-safety actions should be focused) - as have occurred in the US since the 1970s - yet Australians must still rely on the US for enforcement of strict limits on lead in consumer products at the point of import. The world's best practice legislation and enforcement in the US on this issue is a useful national model that The LEAD Group recommends in its "LEAD Group Model National Lead-Safety Policy" now in PLF Resources Library (see https://leadsafeworld.com/wp-content/uploads/2026/03/LANv23n2-05.pdf).

The L·E·A·D Framework

A FREE 98-PAGE MANUAL FOR RESIDENTIAL LEAD SAFETY

Adapted with permission from detectlead.com.

[Tool URL: https://detectlead.com/pages/lead-framework]

The L·E·A·D Framework is detectlead.com's flagship free educational resource — a 98-page PDF that walks a household through identifying, assessing, abating and dietarily managing lead exposure. It is published under permissive terms and can be reproduced for educational purposes with attribution.

The acronym unpacks into four sections:

• L — Learn. Historical context, biological effects of lead exposure, and identification of common contamination sources within homes.

• E — Examine. Systematic room-by-room assessment strategies, including plumbing evaluation, household items, soil testing and food safety protocols.

• A — Abate. Practical remediation techniques covering cleanup, paint removal, containment procedures and renovation safety.

• D — Diet. Nutritional strategies emphasising mineral saturation through calcium, zinc, iron and magnesium to reduce bodily lead absorption.

The "Diet" section is unusually thorough by comparison to most public lead-safety guides. It draws on the same body of evidence that LANv9n3 (Taylor, "Iron Nutrition and Lead Toxicity," 2009) covered for our readers — namely, that adequate iron, calcium and zinc status reduces gastrointestinal absorption of dietary lead.

The LEAD Group has corresponded with Eric Ritter about translating the L·E·A·D Framework into other languages and adapting the housing-age sections for non-US jurisdictions. The LEAD Group welcomes Letters to the Editor - which can be sent from https://leadsafeworld.com/about-us/contact-us/ - regarding reader interest in such adaptations.

Glowing Lead Tests Explained

A PLAIN-ENGLISH PRIMER ON FLUORESCENCE-BASED DETECTION CHEMISTRY

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/what-are-glowing-lead-tests]

How does the FluoroSpec kit actually work? The reagent is a methylammonium bromide solution. When it comes into contact with lead (in paint film, dust, glaze, or jewellery surface), a chemical reaction forms a perovskite — a crystal structure that absorbs ultraviolet light and re-emits visible green light.

Under a 365-nanometre UV flashlight, a positive reaction appears as a bright green glow within approximately 30 seconds. No glow means no detectable lead at the sensitivity of the test. The same reagent works on multiple surface types: ceramic glazes, painted wood, painted metal, vinyl, plastic, brass and copper alloys, and dust collected on a wipe.

A FluoroSpec test on a drinking glass under 365-nanometre UV light: the painted decoration fluoresces bright green where lead is present. Photo courtesy of detectlead.com.

How does this compare with the alternatives?

• EPA-recognised swabs (LeadCheck, D-Lead) use rhodizonate or sulfide chemistry and detect via colour change. They are single-use and have known false negatives on certain glazes.

• Lumetallix (a competing fluorescence-based kit) uses a similar perovskite chemistry. The chemistries differ in stability and sensitivity.

• Laboratory ICP-MS testing is the gold standard for quantitative analysis but costs hundreds of dollars per sample and requires shipping a physical sample to a lab.

• XRF analysers are quantitative and non-destructive but cost tens of thousands of dollars and require professional licensing.

The role FluoroSpec occupies is the qualitative screening role — a tool that tells a household where to look more carefully, not a tool that produces a number for a regulator. This is an important distinction for our advocate readership.

PPM Explained with Grains of Rice

WHY ONE CHOCOLATE BAR CAN TECHNICALLY MEET THE STANDARD AND STILL POISON A CHILD

Adapted with permission from the news blog of detectlead.com.

[URL: https://detectlead.com/blogs/news/ppm-explained-with-grains-of-rice-and-a-stipple-generator]

One of the recurring difficulties of lead-safety advocacy is that the public has no intuition for parts-per-billion (ppb) or parts-per-million (ppm). Eric Ritter's "PPM stipple generator" is a small interactive tool that fixes this. The user enters a concentration in ppm, and the tool generates a visual analogue — a sheet showing the equivalent ratio in rendered grains of rice.

100 ppm (the CPSIA toy standard): one black grain in every 10,000 white grains. Visually almost invisible — yet enough to register as a recall.

500 ppm (the EPA pre-1978 paint definition): one black grain in every 2,000 white grains. Still hard to see without looking carefully.

5,000 ppm (a typical lead-painted window sill): one black grain in every 200 white grains. Now visible to the naked eye.

50,000 ppm (5% lead by mass — common in pre-1950s paint): one in every 20 grains. Roughly the density of poppy seeds on a piece of bread.

This is a tool Grandma Lead recommends bookmarking. It is the most useful single resource for community education sessions, parent meetings and primary-school visits.

The Lead Lottery

CROWDFUNDED ICP-MS TESTING FOR US$100 PER PRODUCT

Adapted with permission from detectlead.com.

[Tool URL: https://detectlead.com/pages/lead-lottery]

The Lead Lottery is the most innovative of the detectlead.com tools, and the one with the most obvious replication potential outside the US. The mechanism is simple: any member of the public can nominate a consumer product for laboratory testing. Other members contribute small donations. When contributions reach US$100, FluoroSpec purchases a sealed retail unit of the product, submits it to Purity Labs for ICP-MS analysis of lead, arsenic, mercury and cadmium, and publishes the results publicly with full lab documentation.

The transparent breakdown is US$80 for the laboratory analysis and US$20 for the sealed retail sample. No markup. No administration fee. The model is explicitly designed to compete on cost with established crowdfunded testing services, which typically charge US$495 or more per product tested.

Current open campaigns include cinnamon blends, cacao powders, and matcha products — categories where a competing organisation, "Lead Safe Mama," has open fundraising at the higher price point.

For LAN readers, the Lead Lottery is interesting on three levels. First, as a model for democratised testing access. Second, as a public-interest reduction of cost in a market that has historically been opaque. Third, as a possible template for an Australian equivalent — perhaps administered through The LEAD Group itself.

The LEAD Group welcomes Letters to the Editor - which can be sent from https://leadsafeworld.com/about-us/contact-us/ - if you would be interested in seeing such an Australian programme. If sufficient interest emerges, the Committee will consider whether to approach Eric Ritter regarding methodology sharing.

The Contested Foods Explorer

WHEN TWO LABORATORIES TEST THE SAME PRODUCT AND DISAGREE

Adapted with permission from detectlead.com.

[Tool URL: https://detectlead.com/pages/contested-foods]

One of the more unusual pages on detectlead.com is the Contested Foods Explorer — a small database of cases where two different laboratory tests of the "same" product produced significantly different lead measurements. The page currently catalogues two formal contested pairs and one example of natural batch variation.

Example 1: Philadelphia Original Cream Cheese. One published laboratory result reported 120.6 ppb lead. A subsequent retest at a different laboratory found non-detectable (below 2 ppb). Same product, same shelf, different lots.

Example 2: 365 Whole Foods Organic Morning O's. Initial testing reported 362 ppb lead. A community- funded retest produced a substantially different value (unpublished at time of writing).

Example 3 (illustrative): FDA data for raw baby carrots across 27 samples. Range: non-detectable to 36 ppb. This is natural batch variability in a food commodity that depends on soil lead concentrations at the farm of origin.

Why this page exists. Most lead-testing organisations hide their methodological disagreements. The Contested Foods Explorer publishes them. The argument is that single-batch food testing creates misleading certainty — "same product" usually means "same brand, different batch" — and that the public is better served by knowing this than by being given a single confident number.

This is the kind of editorial honesty LEAD Action News readers will recognise. It is one of the reasons the Elizabeth O'Brien chose detectlead.com as the featured website of this issue.

Field Notes: Why Are Children Still the Lead Test?

A SHORT ESSAY FROM THE "FIELD NOTES" BLOG ON DETECTLEAD.COM

Adapted with permission from the Field Notes blog of detectlead.com.

[URL: https://detectlead.com/blogs/field-notes/why-are-children-still-the-lead-test]

In every other area of public health, when a chemical has been definitively linked to neurodevelopmental harm at vanishingly low doses, we test the environment first and the child only when something is found.

With lead, we still do it the other way around. The screening protocol — universal where it exists at all — is to draw blood from a one-year-old or two-year-old child and look for elevated lead. If the blood is positive, only then do we begin the environmental investigation. Eric Ritter calls this "using the child as the test instrument," and the phrase is sharp enough to bear repeating.

The argument of the FluoroSpec project, at its core, is simple: test the house before the child is conceived. Test the dishes before the food is served. Test the toys before they are wrapped. Test with a kit, not a kid.

For LEAD Action News readers, this is not a new argument. It is the argument The LEAD Group has been making, in some form, since 1991. But it is unusually well-articulated by Eric, and the Editor-in-Chief recommends the original blog post.

Field Notes: Awareness Is the Prevention

A SECOND SHORT ESSAY FROM DETECTLEAD.COM

Adapted with permission from the Field Notes blog of detectlead.com.

[URL: https://detectlead.com/blogs/field-notes/awareness-is-the-prevention]

There is no pill for lead poisoning, in any meaningful population-scale sense. There are chelation protocols for the most severe acute cases, but they are partial, expensive, and only deployed when the harm is already advanced. For the chronic low-level burden that affects most adults and many children, there is no medical intervention that meaningfully reduces lifetime body burden.

What works, instead, is awareness. Awareness of where lead lives in the built environment. Awareness of which foods, which dishes, which toys, which water pipes carry it. Awareness sufficient to remove the source before exposure occurs.

Eric Ritter writes that "the hard part is not finding the lead. The hard part is having the right reaction to it." LEAD Action News has been saying the same thing for over three decades. This short essay is worth reading in full.

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Department of Health and Mental Hygiene, King County (Washington) hazardous waste programme, and the State of California under AB-899.

Each part of this article contains the canonical detectlead.com URL for the source material, so that readers may consult the original directly.

The LEAD Group welcomes Letters to the Editor - which can be sent from https://leadsafeworld.com/about-us/contact-us/ - on any content in this issue.