

Do you drink decaffeinated coffee ?

written by Pure Living | March 28, 2024



Decaf Coffee and Methylene Chloride: A Fight for Consumer Safety

The future of decaf coffee is continuing to brew a controversy. The National Coffee Association's (NCA) National Coffee Data Trends statistic, inferred that approximately 0.74 cups (24% of 3.1 cups) per day per capita in the United States are decaffeinated coffee.

Consumer health advocates are urging the FDA to ban methylene chloride, a chemical used in decaffeination. While trace amounts remain after processing, they argue a 1958 law mandates a ban because studies show it causes cancer in animals.

The Chemical in Question: Methylene Chloride and its health effects

Methylene chloride, is used by major coffee companies for its solvent properties. It binds to caffeine in beans, allowing its removal. However, the fight hinges on its potential health risks.

- **Scientific Evidence:** Rodent studies have linked

methylene chloride to cancer. The Delaney Clause of the FDA's food additive laws prohibits any additive proven to cause cancer in humans or animals.

- **Level of Exposure:** Advocates argue the Delaney Clause applies regardless of the trace amounts remaining after processing. They believe any detectable level is unsafe.

Methylene chloride, also known as dichloromethane (DCM), was banned in the United States for certain uses due to health concerns. However, there were no reported deaths directly linked to the use of methylene chloride in decaffeinated coffee.

Methylene chloride was widely used as a paint stripper and degreaser. In 1987, the Environmental Protection Agency (EPA) issued a ban on methylene chloride for use in consumer and most commercial paint stripping products due to its potential health risks. The EPA's risk assessment at the time concluded that methylene chloride posed an unreasonable risk to human health, particularly for workers and consumers exposed during paint stripping.

The primary health concerns associated with methylene chloride exposure include:

1. **Carcinogenicity:** Rodent studies have linked methylene chloride to cancer.
2. **Neurotoxicity:** Methylene chloride can cause dizziness, headaches, and even loss of consciousness due to its ability to deplete oxygen in the blood.
3. **Reproductive and developmental effects:** Methylene chloride may affect the reproductive system and cause developmental issues in fetuses.

The ban on methylene chloride for paint stripping was upheld by the U.S. Court of Appeals for the District of Columbia Circuit in 1991. However, the chemical is still used in

various industrial applications, including the decaffeination of coffee and tea.

In 2018, the EPA proposed a ban on methylene chloride for use in consumer and most commercial paint and coating removal to address ongoing health concerns. The [ban was finalized in 2019](#), but the use of methylene chloride in decaffeinated coffee and tea remains unchanged.

Industry Frustration and the Limits of the Delaney Clause:

- **Overly Precautionary?** The food industry and some FDA officials find the Delaney Clause overly cautious. Animal studies may not perfectly reflect human exposure levels in decaf coffee.
- **Legal Wrangling:** This “Delaney Clause strategy” has been successful before, forcing bans on certain food additives.

Some commercial sources still using methylene chloride for decaffeination include:

1. ABC Decaffeinated Coffee
2. Eight O’Clock Decaffeinated Coffee (some blends)
3. Folgers Decaffeinated Coffee (some blends)
4. Maxwell House Decaffeinated Coffee (some blends)
5. Nescafé Decaffeinated Coffee (some blends)

Consumer Choice: CO₂ & Water-Based Decaffeination

While the debate continues, consumers can make informed choices:

- There are two main non-chemical methods of decaffeination for coffee: the Swiss Water Process and the Carbon Dioxide (CO₂) Process.

1. Swiss Water Process: The Swiss Water Process is a chemical-free method of decaffeinating coffee. This method uses water, temperature, and time to create a coffee bean solution, called Green Coffee Extract (GCE). GCE is then passed through a carbon filter to remove caffeine. The decaffeinated green coffee beans are then reintroduced to the GCE, allowing them to absorb the soluble flavors from the solution while leaving caffeine behind.

Advantages:

- Chemical-free
- Maintains coffee's original flavor
- Environmentally friendly

Disadvantages:

- More expensive than chemical methods
- Longer processing time

2. Carbon Dioxide (CO₂) Process: The CO₂ Process uses pressurized CO₂ as a solvent to extract caffeine from green coffee beans. At high pressure, CO₂ behaves like a liquid, allowing it to penetrate the coffee cells and dissolve caffeine. The CO₂-caffeine mixture is then depressurized, causing the CO₂ to evaporate and leave the caffeine behind.

Advantages:

- Chemical-free
- Highly selective for caffeine
- Environmentally friendly

Disadvantages:

- More expensive than chemical methods
- Limited commercial availability
- Specialized equipment required

This fight highlights the ongoing debate about food safety regulations. While the science on methylene chloride's effects in decaf coffee is complex, consumers have the right to be informed and have access to safer alternatives.

The Takeaway:

- Check the labels on the decaffeinated coffee brands and go for water or CO₂ based processing
 - Is your coffee organic certified ?
 - Don't settle for any unlabeled product or companies that fail to be transparent about the processing.
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Still have your coffee lid on your cup ?

written by Alan Kadish | March 28, 2024



Super dose of BPA while sipping your coffee with a plastic lid !

Have you heard about the recent controversy surrounding bisphenol A (BPA) and how much of it is considered safe ? It's a big deal, especially for those concerned about the effects of this chemical on our health.

BPA is a widely used chemical in the production of plastics, and it's found in many everyday items, including plastic water bottles, food containers, and even the lining of metal cans used for beverages like soda.

Researchers have found that exposure to BPA, even at low levels, can potentially affect brain function, contribute to conditions like ADHD and autism, increase the risk of diabetes, obesity, and heart diseases, and even impact fertility and reproductive health.

In December 2021, the [European Food Safety Authority \(EFSA\)](#) released a report suggesting that the safe daily intake level for BPA should be much lower – a staggering **20,000** times lower than the currently recommended exposure levels in the European Union (EU). That's a significant difference!

In a [TEDx talk](#) highlighting the presence of BPA in disposable coffee cup lids. Zandra Palma, MD, has documented the overwhelming levels we ingest.

While the future of BPA regulation or elimination remains uncertain, it's crucial that we educate ourselves, our families, healthcare providers, and policymakers about the potential risks associated with BPA exposure. After all, our health and the health of future generations are at stake.

Family of Chemicals:

Remember this is a family of chemicals, including BPF, BPB, BPS, BPAF, BHPP, BADGE, and BPZ. So much more work needs to be done to remove these health concerning chemicals from our daily exposure

The constant push and pull between risk and industry considerations should be carefully weighed in favor of our health.

Take Aways:

Still drinking with the plastic lid on your cup, don't !

Consuming Coke in cans.... did you know they [use BPA](#) ?

Check labels as the FDA has mandated BPA reporting.

Use safer products including glass, stainless and silicon, etc.

Read more: [Guide-natural-breast-pumps/](#)

Ready to do something about the plastic issue ? See these organizations.

Plastic Pollution Coalition (PPC): This is a global alliance of organizations, businesses, and activists working toward a world free of plastic pollution. PPC focuses on promoting solutions through education, policy, and cleanups.

5 Gyres Institute: A non-profit organization dedicated to researching and raising awareness about plastic pollution in the world's oceans and implementing solutions to address the issue.

Surfrider Foundation: A grassroots organization that works to protect and preserve the world's oceans, waves, and beaches, with a strong focus on reducing plastic pollution.

Upstream: A nonprofit organization that works to create a waste-free world by addressing the root causes of plastic pollution and promoting reuse and refill systems.

Greenpeace USA: The U.S. branch of the global environmental organization Greenpeace has campaigns and initiatives to address plastic pollution, including advocating for corporate responsibility and policy changes.

Sierra Club: One of the oldest and largest environmental

organizations in the U.S., the Sierra Club has programs and campaigns aimed at reducing plastic waste and promoting sustainable alternatives.

Story of Stuff Project: An organization that creates educational resources and campaigns to expose the environmental and social impacts of overconsumption, including the proliferation of plastic waste.

Break Free From Plastic: A global movement of organizations and individuals working to create a world free of plastic pollution through policy changes, corporate accountability, and grassroots action.

BPA: A True Hot Mess

So, if you missed the recent debacle between the European Food Safety Authority (EFSA) and the rest of the world around how much BPA is safe, you're not alone. Only those with skin in the game were paying attention.

That would include endocrine disruption researchers, healthcare providers who are concerned about exposure in their patients and of course, the plastics industry who depend on BPA for all the plastic we use and love. It is after all, a "high-volume production chemical"- global production is predicted at [7.96 million tons](#) in 2024. And climbing.

Levels of BPA in urine or blood have been found to be closely related to cognition and memory changes in animals, ADHD and autism in humans as well as predicting risk for diabetes, obesity, and cardiovascular disease (acute MI and death). Levels are also closely related to declining sperm count and quality in adult men, and decreased libido and changes to the hypothalamic-pituitary-gonadal axis in both sexes.

Oh, and let's not forget that the new safe levels EFSA identified are based on the immunotoxic effects of BPA at very, very low levels of exposure. Do we have your attention now?

And if you really want a mind-blowing factoid check out one of our doctors, Zandra Palma MD's [TEDX talk](#) on how much BPA is in disposable coffee cup lids. People used to laugh at our colleague, the famous immunologist Dr. Aristo Vojdani when he walked around at coffee breaks during medical conferences taking the disposable plastic lids off the paper coffee cups doctors had in their hands. Nobody is laughing now.

So, in December 2021, EFSA published their report finding that the level of BPA that is actually safe for humans- known as a Tolerable Daily Intake or TDI- is much lower than the EU current recommended exposure level. In fact **20,000 times lower**. And definitely lower than any global regulatory level including in the U.S. This new safe level is **5,000 times lower** than the average daily intake here in the land of regulatory capture. The European Commission (EC) in August 2023 stated that it was planning to propose adopting this revision of the TDI for BPA, including a ban on its use in food packaging materials. Whether that happens will be determined in the near future, hopefully the EU will take the comments we submitted this month seriously.

The comments were detailed in a paper we coauthored that has been accepted for publication in the prestigious Environmental Health Perspectives journal and will hopefully push the envelope on BPA and its [alphabet-soup family](#) (BPF, BPB, BPS, BPAF, BHPF, BADGE, and of course- BPZ). This paper is coauthored by some very big names in the field: Frederick VomSaal- the pre-eminent BPA researcher and environmental health author, Linda Birnbaum- former Director of the NIEHS (National Institute of Environmental Health Sciences), and a long list of others whose research on BPA's effects has appeared in peer-reviewed publications for the last 20 years.

You can read the Commentary [here](#) as it was submitted to the European Commission this month. It's title: "The conflict between regulatory agencies over the 20,000-fold lowering of the tolerable daily intake (TDI) for bisphenol A (BPA) by the European Food Safety Authority (EFSA)". The title speaks for itself and lays out the reasons we've all been exposed to this powerful estrogen-mimetic for the past 90 years.

Will humans survive the [Plasticene Epoch](#)? That depends on us- what we teach our colleagues, patients, families, legislators, and friends about BPA. And yes, there is BPA in the linings of Coca-Cola cans, as there is in all other aluminum beverage cans. Coke has the usual webpage on the safety of BPA, better to admit and downplay any concerns, apparently.

Want to learn more? We have a monthly podcast on this and everything environmental toxicant-related at the [EMEI Review](#). We also have a Wed. night class for healthcare providers we call [Consult Detox Docs](#), where we answer any and all questions about cases, lab interpretation or general issues related to toxicants and health. And for those who are ready to learn it all- a 12 month intensive [training in environmental medicine](#).

Besides, don't you want to become a doc like Zandra Palma?

Carcinogens with acne treatment, now what !

written by Alan Kadish | March 28, 2024



What if your acne treatment converts to benzene, a carcinogen ?

Turns out that the benzoyl peroxide formulations can break down into benzene !

Typically when we find benzene in a product it's because of contamination however, in the case of products that contain benzoyl peroxide it's due to the breakdown conversion of the chemistry. If you've been reading our blogs you know that this is not the first time consumers have been exposed to benzene. Remember the [hand sanitizer recalls](#) ?

A list of the products tested is at the bottom of this blog.

Who blew the whistle on this commonly used over-the-counter product, a Connecticut-based laboratory Valisure LLC. They filed a [citizen petition](#) with the FDA asking for a recall of all the products containing the compound. It's specifically more of an issue when the products are exposed to heat even as low as 98.6 degrees Fahrenheit. You might recall this is the same laboratory that in 2019 alerted the FDA that the prescription medication ranitidine (Zantac tm) is fundamentally unstable and degrades to form high levels of the carcinogen NDMA. It was subsequently pulled from the [market in April of 2020](#).

You may be asking how will my product ever reach even this heat ? Think in terms of the 3 years and the expiration times on these products and then consider transportation, handling, stocking, and of course what happens when it's in the sun or you have a hot environment in your bathroom when

it's in the medicine cabinet. All or even one of these exposures increases in temperature will result in the production of benzene.

Toxicity:

The World Health Organization ("WHO") and the International Agency for Research on Cancer ("IARC") have classified benzene as a Group 1 compound which means they define it as "carcinogenic to humans."

One consideration is that the FDA already has a law restricting benzene from any use in the manufacture of drug substances, excipients, and drug products because of their unacceptable toxicity. The chemical is classified as a class 1 solvent by the FDA. This is the highest level of risk-based classes." Class 1 solvents are known to cause unacceptable toxicities".

Let's get clear about how long this has been known. In [1936 the first literature](#) was presented discussing the degregation of benzoyl peroxide products to benzene. If you're wondering how did this happen you might find the [Reuter's article](#) interesting. It's about the collusion between industry and the agencies that should be regulating these products.

The laboratory tested 175 acne treatment products. You should be aware that many acne products use other compounds, commonly salicylic acid or adapalene which are completely different. These were not the problem products. **Of the 99 products tested that contain benzyl peroxide, ninety-four contained benzene.**

At the time of this post, the FDA is still evaluating action so it's on the consumer's shoulders to address and remove this carcinogen from your and your families use.

Take aways:

- If you're using acne medication check the label for benzyl peroxide, if found discard.
- Acne is caused by multiple factors: hormone changes, zinc levels, dietary intake and bacterial milue to name a few of the areas to assess.
- See your health care provider and think whole body when assessing your acne
- Feel you've been injured by the products, [multiple lawsuits](#) are pending.

The list of those in the suit include:

- Alchemee, LLC and Taro Pharmaceutical USA, Inc. (Proactiv BPO products)
 - CVS Pharmacy Inc. and CVS Health Corp. (CVS Health Acne Treatment Cream and CVS Health Acne Control Cleanser)
 - RB Health, LLC (Clearasil Rapid Rescue Spot Treatment Cream and Clearasil Stubborn Acne Control 5 in 1 Spot Treatment Cream)
 - Target Corp. (Up & Up BPO products)
 - Genomma Lab USA, Inc. (Asepxia Acne Spot Treatment Cream)
 - Walgreens Boots Alliance, Inc. (Daily Creamy Benzoyl Peroxide Acne Face Wash and Maximum Strength Acne Foaming Wash)
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And you thought your cereal was safe ?

written by Alan Kadish | March 28, 2024



Warning: Another pesticide is found in our bodies!

Are Organic Foods the Only Safe Option?

Bad news: A recent study, of oat products and an allowed p

A pilot study of chlormequat in food and urine from adults in the United States from 2017 to 2023 published in the [Journal of Exposure Science & Environmental Epidemiology](#) Feb 15, 2024 found a concerning pesticide called chlormequat in **80% of 96 samples of urine tested**. When newer samples during the 2023 period of time, up to 90% had this chemical detectable in their urine. The group's urine was tested from people in Florida and Missouri. This chemical is linked to **reproductive problems** in animals, and we don't know yet if it harms humans too.

What's the problem?

- This pesticide is **not allowed** on US-grown food crops, but it **can show up** on imported oats and grains. Think of popular brands like Quaker Oats and Cheerios !
- The researchers checked oat products (25 conventional and 8 organic) and wheat-based (9 conventional) food

samples purchased at U.S. grocery stores in the Washington, DC metro area. The results: Worryingly, [92% of non-organic oat products](#) tested had chlormequat residues.

- The amount of chlormequat found in people **increased** between 2017 and 2023, suggesting exposure might be rising.

The scary part:

- Animal studies link chlormequat to **reduced fertility, harmed reproductive systems, and altered fetal growth**. These are serious concerns for human health and need to be evaluated before more exposures are allowed for US crops ! In 2020 the EPA raised the amount of Chlormequat allowable in imported crops.
- **Increased amounts allowed on Oats:** Prior to 2020, in 2018, the **Trump EPA** granted the first-ever approval for some amount of CCC on imported oats. In May 2020, the EPA increased the tolerance for CCC residues in **imported oat grain** from **10 ppm to 40 ppm**. There are no authorized use of CCC on **domestically grown** oats or other food crops.

So, what can we do?

- **Organic options:** This study suggests opting for **certified organic oats and grains** might significantly reduce your exposure to chlormequat. While organic doesn't guarantee complete absence, it offers a stronger layer of protection.
- **Stay informed:** Follow trusted sources for updates on pesticide regulations and health risks.
- **Demand change:** Support organizations advocating for stricter pesticide regulations and safer food alternatives.

Remember: This is just one study, and more research is needed to fully understand the risks of chlormequat. However, it's a

good reminder to be mindful of what we eat and choose options that prioritize our health and well-being.

Important note: It's important to be aware that relying solely on organic foods to completely avoid pesticide exposure is unrealistic and unnecessary. Many conventional foods have very low levels of pesticides that are deemed safe by regulatory agencies. While choosing organic can be a good option for some people, it's best to maintain a balanced and varied diet based on your individual needs and preferences.

Take Aways:

- Source oats and oat products from domestic sources
- Purchase Organic Certified exclusively when purchasing oats.

Less toxins (PFAS) in our water... more needs to be done !

written by Alan Kadish | March 28, 2024



Finally, the US Environmental Protection Agency (EPA) has announced drinking water standards for six PFAS (forever) chemicals.

The list includes PFOA, PFOS, PFNA, PFHxS, HFPO-DA (GenX), and PFBS.

Why is this a big deal, this is the first time that drinking water standards have been proposed for a new chemical under the Safe Drinking Water Act **since 1996**. The proposed new drinking water standards follow last year's announcement of [lifetime health advisories for four PFAS](#). Chemical companies sell PFAS for application to products such as paper and textiles as stain-resistant, water-repellent, and grease-proofing treatments.

Health Issues:

The family of PFAS's have been linked to serious health problems such as cancer, immune system suppression, increased cholesterol levels, pregnancy-induced hypertension, liver damage, reduced fertility, and increased risk of thyroid disease. To keep perspective, we now know that these chemicals can be toxic at **extremely** low levels of exposure. Much of the movement to reduce or even eliminate this class of chemicals has come from the outcry of consumers. Retailers have taken consumer sentiment as a strong signal to phase out all PFAS to

prevent further contamination of our communities' drinking water and poisoning their clients.

Where can I find PFAS's:

PFAS, or per- and polyfluoroalkyl substances, are manufactured and sold by chemical companies to be used as stain-resistant, water-repellent, and grease-proofing treatments for products such as paper and textiles in our take-out containers. They are also used in industrial processes and are released into waterways, leading to their widespread presence and because of their longevity a real issue to clean up both the soil and water. Due to their persistence and resistance to breaking down in the environment, they are commonly referred to as "forever" chemicals.

A 2022 study by an organization known as the [Toxic-Free Future](#), have found PFAS in a majority of products labeled as stain- and water-resistant, with 72% of tested products, including those from REI and Amazon. Another study conducted in 2021, led by scientists from Toxic-Free Future, the University of Washington, and Indiana University, discovered [PFAS in all breast milk samples](#) tested and found that the newer PFAS members can also accumulate in people. For those who are concerned with their breast milk see the [Agency for Toxic Substances and Disease Registry's](#) website for additional information.

Remember your take-home containers from the restaurants ? The compostable fast-food containers were designed to be more environmentally friendly than single-use plastic ones. However, a new study has demonstrated that they can release toxic per- and polyfluoroalkyl substances (PFAS) into the air. This study was with retailers in Toronto and published in [Environmental Science. Technology Letter](#). 2023. The results indicate that the PFA's used to make paper-based food packaging grease resistant, break down over time into volatile

fluorotelomer alcohols and fluorotelomer methacrylates contaminating us and our environment.

This same organization's investigative report identified a PFAS manufacturing facility as a significant source of both PFAS pollution and ozone-depleting chemicals that contribute to health issues and climate change. leading to continued health risks and a burden on us as taxpayers and ratepayers to clean up the contaminated drinking water and soil.

Some state governments are taking steps to regulate PFAS's. New enforceable standards also known as Maximum Contaminant Levels (MCLs) have been published for some of the PFAS's found in drinking water. Ten states are on board with standards including ME, MA, MI, NH, NJ, NY, PA, RI, VT, and WI with Delaware and Virginia in the process of establishing their own water standards.

The real key is to phase out PFAS in products and promote the use of safer alternatives. Maine and Washington have granted state agencies the authority to ban PFAS in various products, while other states have enacted restrictions on PFAS in textiles, carpets, rugs, food packaging, oil and gas products, personal care products, and firefighting foam. More states will be looking to restruct PFAS's shortly.

Good News

Some retailers have heard enough from their clients are adopting safer chemical policies to remove PFAS and along with other dangerous chemicals. Keep in mind this includes both the actual product and the packaging. Among those who use PFAS's in their products, outdoor and textile brands have been announcing policies to reduce and eliminate these toxins. Recently, REI joined the ranks of major retailers that have banned PFAS in all textiles and cookware they sell. This action mind you followed a nationwide campaign to make them a

more responsible corporate citizen.

Some manufacturers such as Patagonia have also pledged to eliminate all PFAS from their entire product line, however from now until 2024. Speaking of outdoor brands, Columbia has committed to phasing out PFAS by the end of 2024. In 2021, Polartec announced that it would eliminate PFAS in its DWR treatments across its line of performance fabrics. Lowe's and The Home Depot are no longer selling indoor residential carpets or rugs containing PFAS, and Lowe's has also committed to discontinuing the sale of fabric protection sprays containing PFAS. Major grocery and fast-food chains like McDonald's, Burger King, Starbucks, and Whole Foods Market have implemented policies that limit the use of PFAS in food packaging. As of now, more than 30 distinct retail chains, with over 150,000 stores and a combined sales revenue of over \$650 billion, have pledged to eliminate or reduce PFAS in food packaging, textiles, and other products.

Take Aways:

If it says waterproof, stain resistant or water repellent be suspect and ask for details, before purchasing

Check your carpeting and outdoor gear (think Scotchguard by 3M)

Want to know what's in your water ? [TEST NOW](#)

Have you purchased your clothing from some of the manufacturers mentioned in our article, perhaps it's time for new gear ?

Don't apply waterproofing agents to your outdoor camping gear or any indoor products unless they explicitly indicate alternative safe agents. (Nikwax, as an example)

Still getting fast food with the old style of grease-free wrappers, think burgers, pizza and fries

Think about taking a glass or silicon container for your left overs from the resturnat, vs using their products.

Use the [Retailer Report Card](#), to check on your retailer's index of their toxins and policies

Big News... the FDA expands to beauty and personal care products

written by Pure Living | March 28, 2024



Personal Care Product oversight, finally !

As those in the personal care industry know the oversight for contents and recalls has been very limited as the regulatory laws have been the same **since 1938**.

For the last 84 years not much has changed, until the upcoming new regulations set to start taking effect in December of 2023. When you think of personal care products include your makeup, skincare, haircare and other items that you apply to your body.

As part of the [spending package](#) Congress passed last year, there will be a new set of regulations that take effect in

December of 2023. It's called the Modernization of Cosmetics Regulation Act of 2022 (MoCRA). It significantly expands the US Food and Drug Administration's authority regarding beauty and personal care products.

The real muscle of MoCRA is the ability of the Food and Drug Administration (FDA) to issue *mandatory* recalls of products they deem unsafe. Prior to this change, it was only able to **request** that companies issue voluntary recalls. You might be aware that there have been some major lawsuits in the "beauty" industry. One of the highest profile cases recently is of course the 40,000 patients involved in lawsuits regarding [Johnson and Johnson's baby powder](#) and their experiencing high uterine cancer rates. Or perhaps you're aware of the correlation between [hair straighteners](#) and uterine cancer? These are but two of the ongoing issues with cosmetics that need additional oversight to make the industry safer for us all.

Changes :

Some other significant changes will be the requirement to engage in what's known as [Good Manufacturing Practices](#) (cGMP). In many industries, these are and have been the law of the land for decades. Consider pharmaceuticals, foods, supplements, and medical product manufacturers as prime examples.

Mandatory allergen labeling which means that fragrance allergens will be printed on cosmetic labels along with facility registration with updates every two years will become the new standard. Along with these requirements, the products listing will now be required to include contact information for reporting adverse events, where the product was manufactured.

Along with these regulations manufacturers will be required to maintain records supporting what is termed "adequate

substantiation " that the product is safe. The way this will be interpreted is defined as "tests or studies, research, analyses or other evidence or information that is considered, among experts qualified by scientific training and experience, to evaluate the safety of the cosmetic product and their ingredients sufficient to support a reasonable certainty that a cosmetic product is safe". **The fly in the ointment is what constitutes "safe".**

The key to the provision is the FDA's enforcement options should the product not meet this standard, as it will be classified as [adulterated](#). This regulation will demand a much higher level of compliance

New provisions regarding adulteration are part of the new law. The new responsibilities of cosmetic manufacturers to substantiate safety will inevitably lead to more lawsuits however, it will also drive the movement toward verifiably safer products.

One other consequence of this regulatory change will be the higher cost of compliance that will be passed on to the consumer. There will be a lessened level of [requirements for firms](#) that meet the "small" business definitions. So once again the onus will be on the consumer to understand which firms will meet all of the regulations and who is partially exempted.

Three State Regulations examples:

One of the problems with cosmetic regulations and laws in the US is the lack of commonality between state and federal laws with personal care products. This will continue as the MoCRA does allow for state based regulation. In 2005 and starting with the enforcement in 2007 the California Safe Cosmetics Act of 2005 the state changed their requirement for cosmetics manufacturers requiring labeling of any ingredient that is on state or federal lists of chemicals

that cause cancer or birth defects. In 2020, California passed the [Toxic-Free Cosmetics Act](#) which will take effect in 2025 and bans 24 ingredients known to be toxic, including mercury and formaldehyde, from beauty and personal care products sold in the state. Then also there is the [Cosmetic Fragrance and Flavor Ingredient Right to Know Act](#) of 2020 which has labeling requirements for fragrance allergens. The state has now also passed a ban on PFAS in cosmetics, the [PFAS-Free Beauty Act](#) which will ban the manufacture, sale, delivery, holding or offering for sale of any cosmetic product that contains intentionally **added** PFAS as of Jan. 1, 2025. Again, the concerns are in the fine detail as shouldn't all PFAS's be eliminated especially with our current level of knowledge and their health impact ?

In Washington state, the recent [2022 Chemical in Cosmetics Used by Washington Residents](#) report made waves. Lead was found in foundations and lipstick. Formaldehyde was found in seven out of ten skin lotions, nine out of ten leave-in conditioners, and all ten hair styling gels. The result is a new [House Bill 1047](#) that would ban the sale, manufacture, and distribution of cosmetic products with a number of toxic chemicals in Washington, beginning in 2025. It should be noted that this is not the first-time similar bills have been unsuccessfully put forward. On the successful side, Washington state has banned phthalates in fragrance products.

In New York state the [Environmental Conservation Law \(ECL\)](#) established a maximum allowable concentration of 2 ppm of 1,4 dioxane on December 31, 2022, and 1 ppm on December 31, 2023, for *household cleansing and personal care products*. However, the maximum allowable concentration of 10 ppm of 1,4 dioxane is allowed after December 31, 2022, for cosmetics. Recently a new [bill SB 8291A](#) has banned the use of mercury in cosmetics.

Safer Ingredients:

Cleaner functional ingredients have been in the pipeline of most cosmetic manufacturers for decades. The ongoing awareness of consumers searching for safe products has propelled the market to develop many new products. For those interested in an inside view of the industry see these two publications; [Global Cosmetic Industry](#) and [Cosmetics and Toiletries](#) , it's amazing how many changes are coming to this industry.

One of the challenges in this and other industries is the need to really understand the complete supply chain and employ scientifically valid testing methods to insure safe verified ingredients. This is then followed by manufacturing, distribution, and packaging processes that ensure the end product is, not unlike the ingredients, safe for use. When you consider the global nature of ingredients used in many cosmetics and personal care items this is a huge undertaking requiring significant infrastructure and capital.

The current labeling, substituting and use of questionable ingredients in our personal care products regardless of the current laws has failed to have us avoid any and all products of concern. Reading labels is a start but clearly, the findings of the new [Washington state report](#) should reinforce your skepticism and make us all weary consumers.

At Pure Living, we think that beauty should never come at the expense of short-term or long-term health. Ultimately the goal is to make wise choices and minimize toxic exposures. With the new forthcoming regulations, we will see a new level of opportunities to exercise our consumer awareness and vote with our dollars for safer personal care products

Take Aways:

Use the least number of cosmetics, as possible, to minimize your exposure

Talk to your legislators and insist on safer standards

Consider testing your body for toxins

Check the ingredients on all of your personal care products

Only purchase from reputable companies

Avoid the following short list of chemicals, there are more...

- Phthalates
- Toxic metals: lead, arsenic, cadmium there more...
- Quaternium-15 and Other Formaldehyde-Releasing Preservatives
- Butylated Compounds (BHT, BHA)
- Parabens
- Petroleum derivatives: mineral oil petrolatum
- Foaming Agents: Sulfates (Sodium Lauryl Sulfate (SLS))
- PFOA's

Are Christmas trees and

wreaths safe ?

written by Pure Living | March 28, 2024



Did you know that when you bring home a Christmas tree you get more than just needles ?

It's that time of year again and many of us will be purchasing trees and wreaths for the holidays. There are of course real and artificial options for our trees and wreaths. Let's discuss what to expect and how to keep your home safe. Want to be as non-toxic as possible and have a great holiday...keep reading as you can make great choices.

Bugs, Mold, Pesticides, Herbicides, Terpenes, Sap, Flame retardants and Pollens:

When you shop for a tree remember that you're also bringing home potential bugs, mold, new odors and pollens. And you thought it was just a cute natural tree, read on.

When you purchase a tree did you harvest it live or was it shipped from elsewhere ? If it was shipped from somewhere it was wrapped and during shipment would have been exposed to both moisture and heat. As a Pure Living reader, you know

that this will encourage both bacterial and fungal growth coupled with a place for more bugs to breed. There should be less of this concern if the tree was local and did not travel or was stored for a period of time.

Generally, the molds, pollens or tree scent (terpenes) will not cause allergy or health issues for most of us, with exceptions. It's important to be aware of those who may be more sensitive, including [your pets](#). While we consider these issues do you or others in the household have asthma or other reactions including allergic reactions to pollens ?

Have you ever noted a change in your household members with the holiday season ? Some reactions to have you take note, are a runny nose, sneezing, sinus infections, overall fatigue, behavior changes, itching or even hives.

Factoid: Did you know that in medicine there is a disorder called [Christmas tree syndrome](#) ?

When purchasing a live tree:

One of the easiest ways to eliminate pests and debris is a good shaking of the tree, prior to placing it in your home. The best is a high-speed shaker on site where you purchased the tree. This approach removes a lot of debris and with a stiff breeze will decrease the pollen count. Not an option, how about outside at the purchase site a vigorous leaf blower exposure or as a last resort spraying the tree with a hose and then shaking as much as possible ?

You did check if it's from a pesticide/herbicide-free farm ? Remember your going to be living with this item in your home for weeks, so no it's not a small issue. Yes, organic trees may contain a higher amount of beetles, mites and spiders which are very commonly found on spruce, pine and fir trees

however, the trade-off is well worth it.

Artificial trees:

Not surprisingly most artificial trees are manufactured in China and made from [PVC](#), a petroleum-based plastic that's associated with a [number of cancers](#) and to top it off, lead is used to stabilize the PVC and phthalates make the plastic more flexible. This means endocrine and neurological disruptions.

Did you know that Christmas trees are exempt from being lead-free, unlike many other consumer products ?

The lead and phthalates problem is that as the tree degrades it results in dust in your air and on surfaces all over the home, exposing everyone. The real issues are your children and pets as both are going to be playing closer to the dust. There are dozens of studies that show the amount of these chemicals are highest in these populations because of their higher respiration rate and location.

Now that I have your attention if you do have an artificial tree wash your hands after touching it and don't vacuum, without a [HEPA filter unit](#), under or around the tree, as it will distribute the dust and toxins.

Now for some good news, not all artificial trees are as much of a toxic load. Some are made from polyethylene or polypropylene however manufacturers can and do mix these plastics with PVC. How to know... ask and hope your given real information. There are limited manufacturers who have PVC, fire-retardant-free trees. Ikea has been at the forefront with removal of some of the toxins in their tree products including the PFOAs of forever chemicals.

Tree options:

Have you ever thought of using a wooden tree or a [DIY option](#)? There are cardboard Christmas trees or perhaps a totally different species of potted tree would be a consideration? How about plan B, thoughts on having your tree live outdoors, in sight and even live outside?

Take Aways:

Live tree options:

Find an organic tree farm/source

Shake the tree aggressively at the site

and see above to clean....

Remember to check if anyone is reacting to the tree

Recycle your tree

Artificial trees:

Purchase American or European-made products

Avoid the PVC based items and check and avoid those that are chemically fireproofed

Wash your hands after touching the tree/wreath

Only use a real HEPA filter vacuum or wet dusting

Have a HEPA based air purifier running **full time**

Does your bread have a carcinogenic ingredient ?

written by Alan Kadish | March 28, 2024



Is your bread toxic ?

Did you know that in the US **326.91 million** Americans consumed bread in 2020 ? Not a small amount however, there may be some health considerations when you choose which bread dough based product to purchase.

Our focus will be on one of the additives, potassium bromate. Unlike our laws in the US, those in the UK, Canada, Brazil, Nigeria, South Korea, Peru, China and the [European Union](#) have already banned this ingredient and it's time that the U.S. follows suit. Keep in mind that this is *one of many* that are still on our shelves even though they cause disease.

Let's start with the understanding that potassium bromate is a chemical additive typically used to make bread rise more efficiently and whiten the dough. The catch is that this chemical is a possible human carcinogen.

You're probably asking yourself why haven't we in the US banned this additive. Let's follow the laws: The [International Agency for Research on Cancer](#) considers it a possible human carcinogen, and together with the Center for Science in the Public Interest petitioned the F.D.A. to ban it nearly **20 years ago**.

Now for the catch, an amendment in 1958 to the Food, Drug and Cosmetic Act prohibits the Food and Drug Administration (FDA) from approving food additives that are linked to cancer, however, many substances that were in use before the passage of the amendment, known as the [Delaney amendment](#), are **considered to have had prior approval** and therefore are not regulated as food additives. And the F.D.A. says potassium bromate has been in use since **before** the Delaney amendment on carcinogenic food additives was passed. You'll hear the term [GRAS, generally recognized as safe](#) group of additives list. Quite an oxymoron but the current law to the time of this post.

Has there been any progress since the 1973 planned literature review by the FDA, not really ! Last year congress considered legislation called the [Food Chemical Reassessment Act of 2021](#). If it gets enacted, the bill would create a new Office of Food Safety Assessment within the FDA. The concept is to go through the legal loopholes, that were reviewed by the FDA many decades ago, and determine if these additives are still safe to eat. This bill clearly identifies [10 chemicals](#) of concern for immediate reassessment. The good news is that potassium bromate is on the list. The bad news is that no action has taken place on the bill.

When you look at where potassium bromate is used it includes: bread, rolls, cookies, buns, pastry and pizza dough along with packaged flour. When the [\(EWG\) Environmental Working Group](#) group took a look they found this chemical in 130 products.

Want to weigh in and tell the FDA how you feel ? A citizens petition can be found at the: [Care2 site](#)

Take Aways:

Check the ingredients of your bread or dough product (less

ingredients the better)

No Potassium Bromate should be acceptable in any product so stay alert and read labels

Does your pizza joint or bakery use premade dough and add additives ?

Check your flour and make certain it's actually only flour without additives

Using a self cleaning-oven... stop !!

written by Alan Kadish | March 28, 2024



Self-Cleaning is convenience worth your health ?

Let's start with a bit of science. When you put your self-cleaning oven on it goes to a high temperature of 800-1000 degrees incinerating the debris in your stove for hours.. What's wrong with this approach...let's count the ways.

First, is your stove vented to the outdoors during the process, NO...where do you think the particulates are going ? You guessed it, right into your home air. Not what you want your family or pets to inhale. **Second**, it puts the electronics of the stove at risk, yep it's not unusual for

it to be the cause of a repair, and third how about the energy use, it's grossly excessive and costly.

Air Quality:

Let's look at the output chemistry from cleaning the dirt and grease during the self-cleaning cycle. The high heat impacts the complex molecules of the food residue, leaving behind a carbon-rich ash. The intent is to be able to wipe clean the debris at the end of the self-clean process.

Now the rub, we know that there is an addition to your air of carbon monoxide, polycyclic aromatic hydrocarbons (PAHs) and heterocyclic amines (HCAs) released as the oven dirt and grease are incinerated. The more dirt and especially grease, at the start of the cycle the more these chemicals are released.

Curiously you would think there would be some science to qualify our risk . Currently, there doesn't appear to be any well-done studies, I looked. Not surprising as each of our ovens will have different contents when cycled and they are different in terms of temperature and timing and what would happen if it became an industry wide concern ? Did you know that 60+% of [oven buyers](#) specify self-cleaning options ?. However, [chemistry is chemistry](#) and there is no question that with high heat we create these toxic chemicals

Now for some bad news, we do know that [polycyclic aromatic hydrocarbons](#) (PAHs) and [heterocyclic amines \(HCAs\)](#) are considered carcinogens. Pause for a moment and let's just consider the best approach. Don't use the self-clean cycle or.... perhaps run a fan out the window when it's in use ? There currently is no clinical evidence regarding how much CO is released during the self-clean cycle.

Options for cleaning:

Line the interior of the oven with foil

Try the steam cleaning method: small tray of distilled water in the oven on low heat, then scrape might suffice

Use the baking [soda and vinegar approach](#): (see below) there are 3 variations for these methods of cleaning

Take Aways,

If you get a self-cleaning oven it's probably better insulated, so a good investment but don't use this setting

Does anyone in the house have a respiratory issue ? No go on the self-cleaning setting

If you do use the self-cleaning setting, set up a fan in a window to exhaust the fumes.

Using a gas

From the [Arm and Hammer site](#): PS We did not take any monies for this posting.... As a note [Costco](#) sells a large container and appears to be one of the most cost-effective approaches.

Baking soda is non-toxic, inexpensive, easy-to-use, and remarkably effective on cleaning oven grease. Baking soda is alkaline, and oven grease made of food particles is typically acidic. Baking soda neutralizes acids and breaks down the grease, allowing you to wipe it up without a lot of elbow grease. It's also a mild abrasive, so it works well at removing dried, stuck-on foods. You don't have to turn your oven on, and you can use it immediately after cleaning with baking soda.

In most cases, baking soda works its magic in just 15 minutes,

making oven cleaning less of an arduous chore and more something you can do in the span of a single episode of your favorite sitcom.

The basic baking soda oven cleaner recipe for regularly cleaned or lightly soiled ovens is as follows:

Ingredients:

- $\frac{1}{2}$ cup ARM & HAMMER™ Baking Soda
- 3 tablespoons water

Instructions

- In a small bowl, combine the ingredients to make a paste roughly the consistency of pancake batter.
- Remove the racks from the oven.
- Using a rubber spatula or a gloved hand, smear the paste over the dirty parts, whether metal or glass. Avoid the heating elements.
- Let the paste sit for 15-20 minutes.
- Wipe up the paste and loosened dirt and grease with wet paper towels.
- Wipe the oven's interior with a wet paper towel, using water or a 3:1 mixture of water and distilled vinegar.

Repeat if necessary for tougher stains, or try the heavy-duty method below.

Heavy Duty Oven Cleaning with Baking Soda

Let's face it. Sometimes we don't always make cleaning the oven a priority. Sometimes months, even years, can go by between oven cleanings. It happens. If your oven is in the heavily soiled category, you can still use baking soda to get it back to sparkling. Try this alternate recipe instead:

- 1 pound ARM & HAMMER™ Baking Soda
- 1 tablespoon salt (regular table salt is fine)
- 2 tablespoons water

Mix together in a bowl to make a thick, sandy paste, along the consistency of cake icing, adding additional water 1/2 tablespoon at a time if needed. This recipe will make enough to deep clean an oven floor. Triple the recipe if you are doing the back, sides, ceiling, and oven floor.

Remove the racks from your oven. Using a spatula, cover the entire metal or glass surfaces with the paste. Shut the oven door and leave it overnight in the cold oven. The paste will harden by morning.

Once the paste is hardened, use the rubber spatula and warm, wet paper towels to loosen and wipe up the baking soda and dirt. You'll reveal the oven's original, stain-free surface underneath and your oven will have gone through an extreme makeover.

Cleaning Your Oven with Baking Soda and Vinegar

You can also use vinegar in a spray bottle to help baking soda get the job done and to be sure you've removed all baking soda after cleaning. Here's a quick oven-cleaning with baking soda shortcut you can use immediately after you have a spill in your oven.

- Sprinkle baking soda liberally over the stain.
 - Spritz with water, or a 3:1 water to white vinegar solution. If you use vinegar, baking soda will bubble.
 - Let sit for 15-20 minutes, after your oven has cooled.
 - Wipe up baking soda and dissolved food with wet paper towels.
 - Wipe the entire oven interior with a 3:1 water to vinegar solution.
 - Be satisfied at a job well done.
-

Still cooking on a gas stove ?

written by Alan Kadish | March 28, 2024



What would you do knowing your Gas Stove was a health risk ?

How many times have you heard the professional chef on TV or elsewhere tell you that cooking on a gas stove is the optimal choice? What if you're not a serious cook and/or planning a high-end kitchen? Yes, there is the argument that the use of an electric stove has less controllability and there are some real questions about using the newer induction stoves due to their high electromagnetic field effect.

Let's get some ideas about this common approach and how it may be affecting your family's health. You undoubtedly have seen multiple warnings on your camping gear to never use a gas stove in your home, why? When you combust any product, be it natural gas or propane, it creates a group of other chemicals including some that you've heard of such as carbon monoxide, methane, nitrogen oxides and more.

Why does this matter, because your children have developing lung tissue and they move more air than adults which means that they are more susceptible to injury. Need proof of how significant the air is to you and your family? See this

article on [adolescents and mental health](#) or how about the difference in health with some [clean air](#).

The Science and studies:

There have been a number of quality studies of air quality in homes with gas stoves during the past decades and the findings are consistent, "Gas cooking is a main source of indoor air pollutants, including nitrogen dioxide and particles". In this publication "[Indoor air pollution from gas cooking and infant neurodevelopment](#)" The researchers looked at the effects on your infant. To summarize their findings, "**Conclusions:** This study suggests a small adverse effect of indoor air pollution from gas cookers on the mental development of young children".

A number of years later another researcher Rob Jackson published this work, "Methane and NO_x Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes" where he tested homes and concluded, Our data suggest that families who don't use their range hoods or who have poor ventilation can surpass the 1-h national standard of nitrogen oxides NO₂ (100 ppb) **within a few minutes** of stove usage, particularly in smaller kitchens.

Did you know that New York, Washington State and the Bay Area (San Francisco, San Jose, Berkeley, and Oakland are actually banning gas stoves in new constructions. New York's ban starts in 2023 with Berkeley having started in 2019. More than 50 cities and counties in California, such as San Francisco, Santa Barbara and Sacramento, already have [passed ordinances](#) that require construction of new buildings to be natural gas-free or meet electrification building codes.

The Chemistry:

When you combust a gas it releases a number of chemicals. Our focus for this blog is the combination output of

nitrogen dioxide which has multiple health effects even from low levels of exposures nitrogen oxides in the air. This chemical "can irritate your eyes, nose, throat, and lungs, possibly causing you to cough and experience shortness of breath, tiredness, and nausea. Exposure to low levels can also result in fluid build-up in the lungs 1 or 2 days after exposure. Breathing high levels of nitrogen oxides can cause rapid burning, spasms, and swelling of tissues in the throat and upper respiratory tract, reduced oxygenation of body tissues, a build-up of fluid in your lungs, and death".

But wait there's more bad news when you combust a gas. What about the carbon monoxide (CO), and formaldehyde (HCHO) ? If there is good news the formaldehyde level is minimal compared to other outgassing products in the typical home. As to the carbon monoxide, well it depends on a number of factors however, as a deadly odorless gas it's not something to dismiss. If you think this is fear mongering perhaps reading this [website from the Iowa State University](#) may change your mind.

Venting:

Forgive me it it's not obvious, if your vent hood is not directing the fumes to the outside of your home it's not doing the job. Check for a clear outside vent however. that's probably not enough but a start . To properly vent your gas stove you need adequate air flow which is hard to achieve if the vent is greater than ~30 " above the burners. Yes check your setup including the way the pipe is assembled. Too many turns and it's not [going to work well](#) and don't forget it needs to be solid not flexible pipe. If you know the amount of air your vent moves (CFM) you can calculate if it's adequate. The rule of thumb is 100 cfm for every linear foot of cooking surface or for high end ranges, consider all the burners and then you'll need ~ 100 cfm for every 10,000 BTUs. Another consideration is the rule of for

every 3 inches a hood exceeds the suggested height above the cooktop (30"), add another 100 cfm to get adequate air flow. Now that we are this deep into the subject let's not forget there's more when you consider air flow. When was the last time you cleaned the filters? Want to restrict flow, think of all the grease and other materials that get into your filters.

Ecologically Speaking:

Did you know that the energy efficiency of a [gas stove is only 40%](#)? For comparison using your electric stove is 74%. and yes induction is better at 90%. In the next article we will discuss the downsides to the induction stove and why we at Pure Living are not suggesting it's use.

Your gas stove is an ecological disaster. Hang on I'll explain, in the study by professor Jackson they tested the homes with the gas OFF. What they found should be upsetting. Even with the appliance off there was emissions of methane gas. Why is this an issue, consider this: "Using a 20-year timeframe for methane, annual methane emissions from all gas stoves in U.S. homes have a climate impact comparable to the annual carbon dioxide emissions of 500 000 cars."

Using a 20-year timeframe for methane, annual methane emissions from [all gas stoves](#) in U.S. homes have a climate impact comparable to the annual carbon dioxide emissions of 500 000 cars. Now if that's not enough to sway you consider , "The reaction of nitrogen dioxide with chemicals produced by sunlight leads to the formation of nitric acid, which is a major constituent of acid rain. [Nitrogen dioxide also reacts with sunlight](#), which leads to the formation of ozone and smog conditions in the air we breathe".

Take Aways:

If you have a gas stove **always** put the vent on when your cooking

Baking do the same with ventilation, always on if your using a gas range

If it's possible to change from gas to electric "just do it"... and check for rebates

Choose electric vs induction due to the questionable electromagnetic levels and evolving science

If the gas stoves flame is not really blue, stop everything and vent the home ASAP