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MADE SAFE + Plastic Pollution Coalition present

The Healthy Baby Guide



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Maybe you've just learned that you're pregnant, or maybe you have a new baby or growing children. Perhaps you and your partner are just thinking about having a family. Whatever the reason, you may be hearing troubling things about toxic chemicals around you—especially chemicals in plastic and other harmful ingredients or materials in the things you use daily—and how these chemicals affect not just the environment, but also the human body and particularly growing babies, infants, and children.

For example, plastic packaging, plastic containers, plastic toys—the list goes on—are practically everywhere. The concerning thing is that studies show plastic is loaded with chemicals that can harm our health.

You may have heard that children are not merely little adults. Their bodies work differently. Their immune systems are not fully developed and they don't have the same ability as adults to clear chemicals from their

bodies. Additionally, children breathe more than adults, about twice as many times in a minute, so they literally have twice the exposure from chemicals in their environment.

Whether plastic or another class of chemicals, we know it's nearly impossible to avoid all exposures in our daily lives, because they're literally *everywhere*. But every step you take to reduce harmful chemicals in your life, no matter how small, is a good step. Actively reducing your toxic load can impact your health and well-being and make the difference between sickness and wellness. According to research studies, reducing your exposures makes a meaningful difference in the levels of these chemicals (and their metabolites) in your body. Simply put, this means that by reducing your use of these products you can improve your health! For example, people



who stopped eating all canned food and food packaged in plastic for just three days showed a drop of over 60% of the hormone-disruptor BPA in their urine.¹

We developed this guide to make it easy for parents and would-be parents to:

- Get safe product recommendations
- Learn about toxic chemicals in plastics
- Find tips to reduce use of plastic
- Gather ideas to avoid other common toxic chemicals

Knowing the risks helps you make better choices for you and your family.

The goal of this guide is to help you make better, safer choices for a healthy and sustainable future.

What you may not realize is that you have enormous economic power to shift the marketplace away from harmful materials. Companies watch what you buy closely, and by supporting companies that are making safer products, you can help make change happen.

This guide is intended to provide an overview about some of the most common exposures to chemicals in plastics and other ingredients of harm that you can control and avoid with a little information and effort. We can protect our children's health *and* send a powerful message to corporations at the same time by purchasing carefully.

Toxic chemicals in plastics impact women's & children's health.

The primary chemicals of concern used in plastics are Bisphenols and Phthalates—See **Section A** at the back of this booklet for more specific information on these chemicals and **Section B** for other chemicals of concern.

What research has shown:

- High levels of BPA in the body have been linked to reproductive problems



About MADE SAFE

MADE SAFE is America's only nontoxic seal for products across consumer product categories, including baby, personal care, household, and beyond.

MADE SAFE certified means that a product has been made from a base of safe ingredients or materials and has been vetted using a scientific process in order to certify that products are not made with ingredients known to harm human health or ecosystems.

About Plastic Pollution Coalition (PPC)

Plastic Pollution Coalition is a growing global alliance of individuals, organizations, businesses, and policy-makers working toward a world free of plastic pollution and its toxic impacts on humans, animals, waterways and oceans, and the environment.

About this guide

By partnering together on this valuable guide, MADE SAFE and Plastic Pollution Coalition are combining our collective expertise to offer you the most up-to-date information to promote a healthy start for you and your family.

in women, like recurrent miscarriages, ovarian cysts, and endometriosis.²

- Some studies show low sperm count may be linked to exposure to hormone-disrupting chemicals, and phthalates in particular.^{3,4}
- Chemicals in pregnant women's bodies can be passed on to developing fetuses in the womb. For example, one 2005 study showed 287 industrial chemicals in cord blood of newborns.⁵
- Many studies are showing that exposure to toxic chemicals in critical windows of development, including in the womb, can have lifelong effects.⁶
- Babies aren't just little adults. Their systems actually work differently. For example, infants don't excrete contaminants or store them in fat the same way that adults do. That makes the toxicants more "bioavailable" for their bodies—and that means more harm can be done.⁷
- Chemicals can also be passed on through breast milk.⁸ We want to underscore that while breastfeeding remains the best option for benefits such as growth, development, and immunity, the amount of chemicals



found in breast milk poses an unnecessary burden. Thus, actively reducing your chemical exposure is a prudent step.

- Children have faster metabolisms, which speeds up their rate of absorption of contaminants. For example, children absorb 4–5 times as much ingested lead as adults.⁹
- Babies and toddlers live closer to the ground where heavy polymers, large chemical molecules, tend to settle. Thus, they are vulnerable to increased, potentially harmful exposure to many pollutants.¹⁰
- Often, disease that is a result of environmental exposures show up later in life. For example, exposure to hormone-disrupting chemicals during the development of the immune system in early childhood can lead to cancer or infertility later in life.¹¹



Plastic and waste

The challenge with many baby products is the short period of time for which they are used. Disposal then becomes a major problem. The Environmental Protection Agency reports that about 20 billion disposable diapers are dumped in landfills each year, accounting for more than 3.5 million tons of waste.¹² It is estimated that the time it takes for a disposable diaper to decompose is 250–500 years.¹³ No matter how green a disposable diaper is, it will not be breaking down any time soon in the landfill, and at least not in a way that meets the FTC Green Guide stipulations of one year. There are going to be a lot of dirty diapers laying around for a long, long time.

Another pending environmental plastic disaster is baby food pouches. These convenience products are growing at an explosive rate, from \$8 million in 2010 to \$45 million in 2015.¹⁴ The pouches can't be recycled because they are made from multiple layers of materials. It isn't possible to separate

out the recyclable components of these pouches either. Hence, they are destined for landfills—or worse, the ocean.

Baby wipes present one more catastrophic environmental challenge. One source has them accounting for a whopping £500 million a year in sales (roughly \$778 million) in the United Kingdom alone.¹⁵ There are several big problems behind the widespread obsession with wet wipes. Most contain plastic fibers that are not biodegradable. These tiny fibers make their way into the ocean, get ingested by sea creatures, even wash up on beaches. The antibacterial chemicals in the wipes are linked to endocrine disruption and the creation of superbugs.¹⁶

General tips and safer options

- Whenever you can, avoid plastic and especially single-use plastics, i.e. things

that get used once and disposed. Think plastic baggies, disposable plastic bags, straws etc.

- Prioritize reducing plastic exposure overall by reducing your use of plastics whenever and wherever you can.

■ LIMIT AND AVOID:

1. Plastic food containers (consider bringing your own to restaurants and cafes).
2. Other sources of plastic exposure such as cans which are often lined with plastic, to-go containers etc.
3. Single-use plastic wherever possible, i.e. refuse plastic straws.
4. Plastics in toys and items that infants may teethe on or put in their mouth.





NURSERY TIPS

- Switch to 100% cotton or wool bedding which are inherently flame resistant.
- Overlay an organic cotton or wool topper on a regular mattress to minimize exposure to flame retardants and volatile organic compounds (VOCs).
- Avoid foam baby products where possible. Be aware of the products with a high likelihood of containing toxic chemicals in their fabric or foam. Think: furniture, nursery gliders and rockers, baby changing mats and more. The Green Science Policy Institute tested and found such chemicals in: nursing pillows, car seats, sleeping wedges, portable crib mattresses, baby carriers, strollers, and changing table pads.¹⁷
- Simplify the number of baby products in your home. Babies can be exposed to fire retardant chemicals in foam-based products such as bassinets, car seats, and nursery gliders. Testing has shown exposure levels were highest in households with more baby products.¹⁸
- Wall-to-wall carpeting usually has a foam mat underneath filled with chemicals like flame retardants. Carpeting can also be coated for durability with chemicals which are considered harmful and off-gas considerably, especially when new.¹⁹ Use only natural fiber rugs—soft ones made from 100% cotton or wool carpets are ideal; use them without padding, and make sure there is no synthetic plastic backing to the rug. Read the details of the item carefully and/or check in store before buying.



- Switch away from baby wipes: Use soft cotton washcloths with warm water (and gentle soap when necessary) instead. If you must use them on occasion, choose wipes made from a fully compostable material (no plastic!) using mild ingredients and no fragrance.
- Diapers: If you choose disposable diapers, look for chlorine-free, fragrance-free, and dye-free to avoid potential effects of dioxin. The Environmental Protection Agency has identified dioxins as a “likely human carcinogen.”²⁰
- Choose water-based paints and/or NO VOC paints for the walls of your home and especially the nursery.²¹
- Limit renovation while pregnant or while the baby is young, unless you are not on the premises and there’s no risk of VOCs, solvents, excess dust, heavy metals or other possible exposures.
- Buy sleepwear made from organic natural fiber cotton that meets flammability standards but doesn’t contain chemical flame retardants.²²
- Remember that thumbs are nature’s natural pacifier; if you use a pacifier make sure it’s 100% hospital-grade silicone.
- When buying furniture, look for items made from real wood without glues, adhesives and veneers.
- Many diaper creams contain titanium dioxide, which is toxic to aquatic life so it should be used sparingly.
- Creams may be unnecessary if you change everyday diapers often enough. If needed,

try something like pure shea butter.

- A folded cotton towel serves anywhere as an easy surface to change baby's diapers.
- If breastfeeding and your nipples get cracked and sore, avoid a lanolin-based cream which can carry heavy metals. Try some olive oil or another oil to keep nipples from chafing.

Nursery Product Recommendations

MADE SAFE Certified Products:

Bioserie for rattles, stackers and toys

Happsy for organic baby crib mattresses and protector pads

Lullaby Earth for baby mattress covers, toppers, and crib mattresses

MamaEarth for diaper cream

Natracare for nursing and maternity pads

Naturepedic for baby bassinets & cradles, baby and kids mattresses, changing table pads, and bedding

Neal's Yard Remedies for baby balm and powder

Pleni Naturals for baby balm

Recommended products that are not MADE SAFE Certified—listings in red with an asterisk* are Plastic Pollution Coalition Members:

Aden+Anais—muslin baby products

Babo Botanicals—natural baby care products

BAMBO Nature—disposable diapers

Blooms Baby's biodegradable Sensitive Wipes—made from sustainably derived plant cellulose

Earth Baby—clothing, skincare, baby food and other good stuff

Earth-Baby*—diaper services that have cloth and compostable options

Honest Diapers—disposable diapers

Our Green House—changing pads and play mats

Real Diaper Association*—promoting cloth diapering and connecting users

Tiny Tots—diaper services that have cloth and compostable options

Weleda—natural baby care products including diaper cream, shampoo



KITCHEN TIPS

- Beware the burgeoning organic baby food market packaged in plastic squeezable pouches. While they seem convenient, they are a disaster for the environment and they contain BPA. The layers of liners and coatings make them difficult to recycle.
- Try making your own organic baby food whenever possible and store in glass jars. Bananas, avocados, and papaya don't even need to be cooked! Simply mash with a fork.
- Cooked food can be frozen in metal or silicone ice cube trays, which make the perfect portion for babies starting on solid food.
- Give your baby natural teethers, like frozen washcloths, cucumber slices, or natural, uncoated wood.
- Do not heat food or liquids in plastic or pouches. High heat allows plastic to leach chemicals faster. Try glass bowls or steel pots instead.

- Use glass bottles or stainless steel bottles.
- Opt for clear silicone nipples for baby bottles and pacifiers.^{23, 24}
- You may be able to completely skip the “sippy” cup. Babies learn to drink quite easily from regular cups. Give it a try!
- Buy—or better yet, make—non-vinyl bibs; you can reuse a scarf or just tuck in a cotton cloth for this.

Kitchen Product Recommendations

MADE SAFE Certified Products:

Bioserie for teethers

Pura Stainless for baby bottles, kids’ bottles, and sports bottles, and interchangeable lids

Recommended products that are not MADE SAFE Certified—listings in red with an asterisk* are Plastic Pollution Coalition Members:

AbeeGo*—reusable beeswax wrap that breathes

Hydroflask Food Flasks—reusable containers that keep food hot or cold

Khala Cloths*—handcrafted organic cotton-hemp blend fabric

Klean Kanteen*—drink and food reusable containers

Life Factory—sustainable glass baby bottles, silicone teethers and food storage containers

Lunch Bots*—leak-proof insulated reusable containers

Our Green House—natural teethers, food storage and serving options

Steely’s Drinkware*—reusable stainless steel drinkware

The Bee’s Wrap—natural alternative to plastic wrap for food storage

To Go Ware*—reusable bamboo utensils and food storage containers

UKonserve*—reusable stainless steel containers with leak-resistant lids



BATHROOM TIPS

- Look for soaps scented with essential oils, and avoid any “antibacterial” soap.
- Use products with minimal ingredients and ingredients you recognize.
- Read ingredient lists. Avoid any product containing *formaldehyde*, a preservation agent found in infant and child personal care products like shampoos, liquid baby soaps, and baby lotion (it isn’t always listed on the label by that name). Avoid the following known formaldehyde-releasing chemical ingredients:
 - Quaternium-15
 - DMDM hydantoin
 - Imidazolidinyl urea
 - Diazolidinyl urea
 - Sodium hydroxymethylglycinate
 - 2-bromo-2-nitropropane-1,3 diol (Bronopol)
- Use personal care products with ingredients that you are familiar with and not long chemical compounds. Also look for third-party certifications to be sure the items

are made with better ingredients.

- Do not use any vinyl/PVC products. Switch to cloth shower curtains as vinyl off-gases chemicals forever.
- Baby skin is naturally soft so you can forego moisturizers for the most part.

Bathroom Product Recommendations

MADE SAFE Certified Products:

Alaffia for baby bubble bath and shampoo/body wash

MamaEarth for lotion, massage oil and baby shampoo

Neal's Yard Remedies for baby oil and personal care

Oilogic for essential oil roll-ons

Pleni Naturals for baby personal care

Recommended products that are not MADE SAFE Certified—listings in red with an asterisk* are Plastic Pollution Coalition Members:

Poppits*—individual toothpaste pods

Wild Clover*—deodorant paste, original organic recipe, handcrafted and fair trade



HOUSEHOLD TIPS

- Be aware that cleaning products can contain unlisted toxic chemicals. Make your own cleaners using cheap and effective ingredients like baking soda or vinegar. Or buy simple ingredient products and reserve the strong chemicals and bleach for only when absolutely required.
- Disinfectants and antibacterial cleaners usually contain registered pesticides that represent unnecessary exposures for everyday household use. Reduce your use of disinfectants, which are too harsh for everyday use.
- Ditch air fresheners. Common chemicals in fragrance²⁵ have been linked to long-term health issues like obesity, diabetes, infertility, ADD, and ADHD. Fragrance chemicals are rarely disclosed on product labels, hidden instead under the umbrella term “fragrance.” Instead, open a window, try incense, or essential oil diffusers.
- Similarly, scented candles can release volatile organic compounds and even heavy metals into the air.
- When considering new furniture purchases, shop flame retardant-free items made from natural fabrics, like wool, cotton, wood, or wicker. Many foam-based sofas, recliners, and children’s furniture items can contain flame retardants. Check the labels for the CA Flammability Standard TB117-2013 which assures that no flame retardants are in the products.
- Rug pads also contain foam filled with flame retardants. If you have a carpet with a rug pad, have the pad removed.
- Avoid dry cleaning and use the traditional laundry wash/dry/fold option. If possible, use fragrance-free detergent.



Household & Other Baby/Toddler Product Recommendations

MADE SAFE Certified Products—listings in red with an asterisk* are also Plastic Pollution Coalition Members:

Alaffia for soap

Kosmatology for foaming hand soap and hand sanitizer

Meliora* for cleaning products

New Living for the Tilly Sofa

Pure Laundry for laundry detergent

Recommended products that are not MADE SAFE Certified—listings in red with an asterisk* are Plastic Pollution Coalition Members:

Cleaning Essentials*—DIY cleaners from homemade ingredients

ELEMENTAL ESSENTIALZ*—safe, effective and zero-waste household cleaning products

If You Care—kitchen and household cleaning products

Life Without Plastic*—alternatives to plastic products

UppaBaby—stroller & car seat—made from wool, not foam. Buy the models made exclusively from wool and cotton without flame retardants



OUTDOOR TIPS



- Common active ingredients in conventional insect repellent like *DEET*, *cyfluthrin*, and *pyrethroids* can harm our health and the environment. Knowing your area and if you are at risk for a mosquito-borne or tick-borne illness can help you make the right bug repellent choice for you and your family.
- Avoid mixing chemical sunscreen and bug sprays: The sunscreen chemical *oxybenzone* has been shown to enhance the absorption rate of *DEET*.
- Avoid sunscreens made with *oxybenzone* and *octinoxate*, which are linked to hormone disruption, organ system toxicity, and cancer. Also, avoid the chemical *homosalate*, which is linked to hormone disruption.
- Some plants have pharmacological and biological properties that make plant extracts effective insect repellents:
 - citronella
 - clove oil
 - geraniol
 - lemongrass
 - lemon eucalyptus
 - linalool
 - neem
 - thyme
 - chrysanthemum oil
- Use clothing and hats to cover up so that sunscreen isn't always necessary.
- For young children's sensitive skin, avoid the strongest sun hours between 10am and 2pm.
- Look for sunscreens with *non-nano zinc oxide* or *non-nano titanium dioxide*, which are both UV resistant. These are the active ingredients in sunscreens used as common substitutes to the chemicals of known concern listed above.

Outdoor Product Recommendations

MADE SAFE Certified Products:

Annmarie Gianni Skin Care for Sun Love sunscreen

Kosmatology for bug repellent balm

MamaEarth for mineral-based sunscreen and insect repellent

True Botanicals for mineral-based sunscreen

Recommended products that are not MADE SAFE Certified—listings in red with an asterisk* are Plastic Pollution Coalition Members:

All Good Products—sunscreen and lip balm

EO Products*—essential oils to be used for bug repellent



TIPS FOR PREGNANT WOMEN & MOMS

- We tend to recommend a “less is more” policy. The average woman uses over 168 unique chemicals linked to some harmful health risk in their daily personal care or household routines, so reducing how many products you use is a good place to begin.²⁶
- Avoid fragrance where you can. Fragrance contains endocrine-disrupting chemicals like phthalates and other unknown harmful ingredients that often don’t appear on labels. Pregnancy is a good time to take stock of how many of your products contain fragrance

(laundry detergent, fabric softener, perfume, creams, soaps, shampoos, lotions, etc.) and begin to phase those out with fragrance-free options.

- Switch to glass or stainless steel rather than drinking from plastic. (From water bottles to coffee, this is a good practice.)
- Many sanitary pads, including nursing and maternity pads, can be contaminated with the carcinogens dioxins and furans. Look for unbleached nursing and maternity pads.
- Are you a self-declared germ-a-phobe? Consider building your biome and kick the hand-sanitizer to the curb. Most contain endocrine-disrupting compounds like *triclosan* and *triclocarban*, which can seep through your skin and into your bloodstream. Also, be sure to use natural, essential oil-powered hand sanitizers when needed.
- Sexual health products like wipes, wash, and lube can contain parabens (linked to cancer), skin allergens, and other harmful chemicals.
- Antibacterial soap kills off good bacteria too, which help build your immune system. Further, anti-bacterial soaps contain unnecessary and harmful chemicals.
- Avoid parabens (commonly-used preservatives) found in many beauty products.

Product Recommendations for Pregnant Women and Moms

MADE SAFE Certified Products:

Annmarie Skin Care for skin care and essential oil blend scents

Badger for Nursing Balm, Belly Butter, and Belly Oil

Curata for botanical fragrance

Good Clean Love for wash, lubricant, and love oils



Hairprint for shampoo, conditioner, and True Color Restorer

Kaelen Harwell for face and body care

Kosmatology for lotion bar, foaming hand soap, hand sanitizer, and body wash

Mother Dirt for AO+ Mist and moisturizer

Natracare for nursing and maternity pads

Neal's Yard Remedies for face & body care, and deodorant

Organ(y)c for pads

Ranavat Botanics for face masques

Rejuva Minerals for concealer, foundation, and bronzers

S.W. Basics for face and body care

Sustain for wipes and lubricant

True Botanics for face and body care, and shampoo and conditioner

Recommended products that are not MADE SAFE Certified—listings in red with an asterisk* are Plastic Pollution Coalition Members:

Wild Clover*—deodorant paste, original organic recipe, handcrafted and fair trade

Samudra Skin and Sea—socially conscious skin care



TOY TIPS

- Look for toys made of natural materials, like wool, cotton, and uncoated wood.
- Tub toys—play with cotton washcloths, finger puppets, wooden toy boats, and lightweight aluminum cups instead of soft plastic bath toys and books.



Toy Product Recommendations

MADE SAFE Certified Products:

Bioserie for toys

Recommended products that are not MADE SAFE Certified—listings in red with an asterisk* are Plastic Pollution Coalition Members:

Baby Green Thumb—non-toxic, organic stuffed and wooden toys

Earnest Efforts—hand-crafted wood teething rattles

Elves and Angels,
Little Wooden Wonders,
Manzanita Kids,
North Star Toys, and
Plan Toys for wooden toys

Under the Nile—100% organic cotton toys

MAKE A DIFFERENCE

Become part of PPC

Plastic Pollution Coalition welcomes all individuals who share the vision of a world free of plastic pollution. It's a big job, and we will succeed only by working together.

Since 2009, PPC has been active, building awareness and sponsoring action to:

- Reduce the overall reliance worldwide on disposable plastic packaging that is overwhelming the planet
- Educate about the toxic chemicals used in plastics and their health consequences for all life on our planet
- Promote the parallel global emergencies posed by plastic pollution and climate change
- Support the work of coalition members to address the plastic pollution problem across borders and sectors
- Demonstrate the challenges plastic pollution generates as an environmental and social justice issue.
- Share and suggest solutions and alternatives to single-use disposable plastic.

Find companies who are part of the Plastic Pollution Coalition at <http://www.plasticpollutioncoalition.org/the-coalition>. These companies seek to increase understanding of the plastic pollution problem and to find sustainable solutions.

Become part of Made Safe

Sign up for our email list at <http://www.madesafe.org> to keep up on the most recent news from Made Safe. We only send emails once a month with important news like new certified products and nontoxic tips. We are

your source for safe products to protect your growing family.

The MADE SAFE seal means products have been examined by scientists to ensure they're made without known behavioral toxins, carcinogens, developmental toxins, endocrine disruptors, flame retardants, GMOs, heavy metals, neurotoxins, high-risk pesticides, reproductive toxins, toxic solvents, or harmful VOCs. MADE SAFE then goes above and beyond: Ingredients have been further examined by a chemist for bioaccumulation (builds up in our bodies), persistence (builds up in the environment), ecosystem harm, and general and aquatic toxicity, making it the leading standard in the country.

Find an updated list of new certified products for all your family & household needs at www.madesafe.org.



REFERENCE SECTION A CHEMICALS IN PLASTIC

Bisphenol-A (BPA) & Substitutes

What is it? BPA, Bisphenol-A, is the most well-recognized toxic chemical used in plastics. It is a synthetic estrogen which acts as a hormone disruptor. BPA makes plastics hard, heat resistant and clear. The good news is that the FDA banned the use of BPA in baby bottles and children's sippy cups in 2012. However, it's likely still found in many other plastics.²⁷

Health Concerns: BPA is linked to hormone disruption, reproductive toxicity²⁸, and breast cancer²⁹. During pregnancy, health effects from exposure to BPA can lead to spontaneous abortion, childhood obesity³⁰, asthma, and neurodevelopmental problems. EWG has created an informative timeline³¹ of BPA exposures and unknown risks.

Phthalates

What are they? Phthalates are plastic softeners used to make items flexible, transparent, durable, and long lasting. Because these chemicals are not tightly bound to the other molecules in the plastic, they often "migrate," moving from the plastic and finding their way into our bodies³². They are used in a wide range of products from children's toys, packaging, personal care products, medical devices, shower curtains, food containers and wrappers among other products.

Health Concerns: Phthalates are endocrine disruptors that are linked to reproductive malformations in baby boys, reduced fertility, developmental disorders, asthma, and increased allergic reactions³³. They've also been identified by Project TENDR³⁴ as

"a prime example of chemicals of emerging concern to brain development."



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Polyvinyl Chloride (PVC)

What is it? Rather than being a chemical, PVC is a type of plastic that's widely known as the most toxic for health and the environment. PVC is used extensively in #3 or #7 plastics, which are pervasive across a wide range of products (toys, car interiors, shower curtains, clothing and flooring, solvents, and perfumes).³⁵ PVC is used in items from construction materials to medical devices, roofing material, children's toys, and water and gas pipes, among many other products.

Health Concerns: In its production, PVC releases dioxins, phthalates, vinyl chloride, ethylene dichloride, lead, cadmium and other toxic chemicals.³⁶ They can leach these harmful chemicals into the water or food being stored in them. That's how these hazardous chemicals get into our bodies.

Vinyl

What is it? Vinyl is a plastic made of the same material as PVC, with phthalates added to make it soft. It can be found in crib mattress covers, shower curtains, bibs, and other waterproof items.

Health Concerns: From production to use to disposal, vinyl releases chemicals that have been linked to cancer, birth defects and other serious chronic diseases. There is no safe way to manufacture, use, or dispose of this toxic material.³⁷

REFERENCE SECTION B OTHER TOXIC CHEMICALS IN BABY PRODUCTS

Formaldehyde and Formaldehyde Releasers

What is it? Formaldehyde is a colorless, flammable, strong-smelling gas used in pressed wood products like particleboard, furniture, and cabinets. It can be added directly to personal care products like shampoo and liquid soaps or it can be released over time in small amounts from certain preservatives in the product.

Health Concerns: Formaldehyde is linked to cancer and considered a known human carcinogen by the National Toxicology Program³⁸ and the International Agency for Research on Cancer (IARC³⁹). The gas has also been linked to short-term health impacts including irritation to the eyes, nose, and throat, and allergic skin reactions and skin rashes.

High-Risk Pesticides

What are they? High-Risk Pesticides are chemicals registered by the Environmental Protection Agency (EPA) that are intended to repel, destroy, or mitigate pests.⁴⁰ In everyday products, they're found in bug repellent, disinfectant cleaners and hand soaps, and residues in non-organic produce.

Health Concerns: Cancer rates in children are up 25% since 1975 according to Pesticide Action Network,⁴¹ which has taken a very clear stand relating this to the increase in use of pesticides, herbicides and insecticides. The American Academy of Pediatrics points to pesticide residue in food⁴² as the most critical route of exposure, which luckily, is one we have some control over.

Flame Retardants

What are they? Flame retardants are chemicals added to slow the flammability of products during a fire. However, studies are showing that these chemicals, which are common in bedding, car seats, and foam baby products like nursing pillows and nap mats, don't actually slow fires and aren't necessary.⁴³

Health Concerns: Flame retardants appear immediately in the bloodstream and urine, and are linked to long-term impacts⁴⁴ like endocrine disruption, lower IQ, ADD, fertility issues, thyroid levels and cancer.

Dry Cleaning— Perchloroethylene (PERC)

What is it? Perchloroethylene (PERC) is the most common cleaning solvent used for dry cleaning. It gets trapped into clothing once "cleaned" and slowly off-gases⁴⁵ into your home.

Health Concerns: It can harm the brain and central nervous system, damage the liver and kidneys, and is likely a cancer-causing agent, according to the NRDC.⁴⁶

Sunscreen—Nanoparticles

What are they? Nanoparticles refer to the miniscule size of an ingredient that can't be seen by the naked eye.

Health concerns: Nanoparticles in sunscreen have been found to cause severe damage to DNA, disrupt the function of our cells, and lead to cell death, according to a Friends of the Earth report.⁴⁷



ENDNOTES

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