



Part Two:

***Green Villa Graphics “Live Like a Local”
Recommended GREEN PRODUCTS
Cleaning Supplies, Sunscreens, Mosquito Repellants,
Landscaping & Gardening: Toxins to Avoid
Toxins to Avoid for a Healthy Home
Water (Ocean) Conservation & Plastics
Diet and Water Conservation***

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Live like a Local!

Water Conservation

Only 3% of the water on Earth is FRESH Water!

Rainwater is St. John's ONLY natural source of Fresh Water!

"Water IS Life!"

- ♥ Please run dishwasher with a full load of dishes. Don't rinse dishes in running water before placing in dishwasher (scrape food scraps into compost bucket before washing).
- ♥ Live like a "local" Consider using the "In this land of sun and fun, we don't flush for number one" rule, which you will see posted in many restaurant rest rooms.
- ♥ Take short showers: Turn on water and get wet, then turn off the water. Lather up with soap and shampoo. Turn on water for a short rinse.
- ♥ Fill sink with water to wash face and shave. Don't leave water running in sink while brushing teeth.
- ♥ Reduce laundry water use by hanging up and reusing bath towels.
- ♥ If washer is provided. Wash full loads of laundry, in cold water, without bleach (which is toxic).
- ♥ Promptly report any unusual water loss to management (running toilets, leaking faucets, etc.). Turn off water supply valve near source if you can.
- ♥ Thank you for your consideration!!

Live like a Local!

Energy Conservation

Fossil fuels are the VI's main power source!
Buildings use about 40% of all power generated!

St. John has the highest cost of electricity in the US.

Help reduce Climate Change with energy conservation.

- ♥ Consider opening doors and using ceiling fans instead of air conditioning to keep cool. Please close windows and doors when using air-conditioners!
- ♥ Keep refrigerator and freezer doors closed as much as possible. Leave temperature controls on 5, (average).
- ♥ Turn off TV when not in use.
- ♥ Turn off lights, ceiling fans and or Air Conditioning when not in use or when leaving the house.
- ♥ If provided: Washers & Dryers: Use the clothes dryer for full loads. Clean the lint filter before each load. Making sure the washer is set to energy efficient settings. Consider taking home your remaining dirty laundry when you leave.
- ♥ Only turn on hot tub jets when using the spa. Leave cover on hot tub to retain heat when not in use. You may run it for a few hours before entering in the evening to warm up the water.
- ♥ Turn off and cover after leaving the tub for the evening and the water will still be hot in the morning. The spa uses the majority of electricity in the house while running and heating the water, and is probably the major contributor to total electrical use in the house.
- ♥ Leave the jets off when not in use.
- ♥ Don't leave the spa light on when not in spa.
- ♥ Thank you for your consideration!

Live like a Local!

Recycling

Our Landfills are closing in 2020. No new ones are planned. 60% of our waste is recyclable! IGLA views waste as a renewable resource!

♥ The Virgin Islands Government Does Not Recycle!!

♥ IGLA, along with the St. John Community Foundation and other Community NGO's are recycling aluminum beverage cans at our community funded recycling facility, the ReSource Depot!

♥ We collect clean aluminum (ONLY) beverage cans at various drop off locations around the island, compact them into large bales and ship them off island to be remanufactured into new aluminum products.

♥ Please clean and sort your empty aluminum beverage cans and place them in the receptacle provided at your villa!

Please DO NOT place the following in the receptacles.

- Non-aluminum (ferrous) metal cans.
- Dirty or partially full cans, with fruit or cig. butts
- Any cans with paper or plastic labels.
- Any other recyclables, plastics, paper, etc.

♥ When full, bag and drop off at the nearest Recycle Bin Location or at the IGLA ReSource Depot, on Giffit Hill Road, close to the Centerline Road intersection.

Your nearest Aluminum Can Recycling Collection Bin is located at:

♥ THANK YOU FOR RECYCLING ST. JOHN!!

Live like a Local!

Composting

Our Landfills are closing in 2020. No new ones are planned. 20% of household waste. (kitchen & landscape waste) is compostable, on site, making a usable soil amendment!"

In NATURE there is no waste!

The Composter at your Villa is located:

- ♥ Composting is nature's way of recycling organic materials back into the soil in order for the cycle of life to continue. The billions of living organisms in healthy soil transform dead plants into vital nutrients for new plant growth. Since healthy plants come from healthy soil, one of the best ways you can build healthy soil in your garden and yard is by using compost. You can easily make compost with landscape trimmings and food scraps in your own backyard.
- ♥ Compost requires 3 Ingredients! Air, Water and Compostable Materials, divided into Browns and Greens.
- ♥ Browns for carbon, greens for nitrogen, air for organisms, and water for moisture.
- ♥ Brown material provides carbon and includes: Paper, like shredded pieces of paper, newsprint, cardboard, and paper rolls, Dry yard waste, like dry leaves, (non-treated) sawdust, and used potting soil.
- ♥ Green material provides nitrogen and includes: Food scraps like vegetable and fruit peels, coffee grounds, egg shells and tea bags. Green yard waste like fresh grass clippings, green leaves, and soft garden pruning's.
- ♥ If your Villa provides home composting, you will find a kitchen compost bucket, with a sealed lid to store food scraps until it is full, a rotating composter (most recommended) outside, near the kitchen and a bin of brown yard trimmings and leaves.
- ♥ When the kitchen compost bucket is full, (with Greens) empty it into the rotating composter outside and cover with an equal amount of Browns from the adjacent landscape trimmings bin. Close the lid and rotate 2 times!
- ♥ That's it!! The mixture should appear damp after rotation, not too wet or dry for best results. If it appears too dry, add a little water to wash out your compost bucket and pour it into the composter! The compost mixture should be "warm" as the natural decomposition produces heat! The hotter it is, the more nitrogen is being "fixed" into the compost!
- ♥ What NOT to compost. Any non-organic, non-biodegradable items like plastic, metal, glass, Also meat, seafood, dairy products, fat, grease, pet waste, diapers are not recommended, unless you are an experienced composter!
- ♥ Home Composting is fun, easy and very forgiving! Any organic material will compost!

For more information:

<http://www.epa.gov/waste/conserve/tools/greenscapes/-pubs/compost-guide.pdf>

Recommended GREEN PRODUCTS

IGLA Green Villa: CLEANING PRODUCT RECOMMENDATIONS

IGLA relies on the EWG recommendations. The Environmental Working Group's mission is to empower people to live healthier lives in a healthier environment. With breakthrough research and education, EWG drives consumer choice and civic action. EWG is a non-profit, non-partisan organization dedicated to protecting human health and the environment.

<https://www.youtube.com/watch?v=HbB0HVS6h64>

- **The EWG Guide to Healthy Cleaning Products** Rates **2,000** Household Cleaning Products from A to F, based on an analysis of their ingredients in the following categories:
 - **Asthma/Respiratory**
 - **Skin Allergies & Irritation**
 - **Developmental & Reproductive Toxicity**
 - **Cancer**
 - **Environment**

<http://www.ewg.org/guides/cleaners>

IGLA SUGGESTS THAT VILLAS USE ONLY A&B RATED CLEANING PRODUCTS, AS LISTED ON THE EWG WEBSITE.

(Local availability notice: IGLA will work with local stores & suppliers to make these products available. As this happens suppliers will be listed on the website☺)

IGLA lists EWG "A" product recommendations in the following cleaning products categories:

- All Purpose / Kitchen
- Bathroom
- Dishwashing
- Furniture / Wood Floor Care
- Laundry

All Purpose Cleaning Products:



Arm & Hammer Baking Soda

<http://www.ewg.org/guides/cleaners/2501-ArmHammerBakingSoda>



Arm & Hammer Super Washing Soda Detergent Booster & Household Cleaner

[http://www.ewg.org/guides/cleaners/5346-](http://www.ewg.org/guides/cleaners/5346-ArmHammerSuperWashingSodaDetergentBoosterHouseholdCleaner)

[ArmHammerSuperWashingSodaDetergentBoosterHouseholdCleaner](http://www.ewg.org/guides/cleaners/5346-ArmHammerSuperWashingSodaDetergentBoosterHouseholdCleaner)



Heinz Vinegar Distilled White Vinegar

<http://www.ewg.org/guides/cleaners/5171-HeinzVinegarDistilledWhiteVinegar>



Simple Green Naturals Glass & Surface Care, Rosemary Mint

[http://www.ewg.org/guides/cleaners/1581-](http://www.ewg.org/guides/cleaners/1581-SimpleGreenNaturalsGlassSurfaceCareRosemaryMint)

[SimpleGreenNaturalsGlassSurfaceCareRosemaryMint](http://www.ewg.org/guides/cleaners/1581-SimpleGreenNaturalsGlassSurfaceCareRosemaryMint)



Green Shield Organic All-Purpose Cleaner Degreaser, Fresh

<http://www.ewg.org/guides/cleaners/5450-GreenShieldOrganicAllPurposeCleanerDegreaserFresh>

Bathroom:



Seventh Generation Natural Tub & Tile Cleaner, Emerald Cypress & Fir

[http://www.ewg.org/guides/cleaners/2227 -](http://www.ewg.org/guides/cleaners/2227-SeventhGenerationNaturalTubTileCleanerEmeraldCypressFir)

[SeventhGenerationNaturalTubTileCleanerEmeraldCypressFir](http://www.ewg.org/guides/cleaners/2227-SeventhGenerationNaturalTubTileCleanerEmeraldCypressFir)



Seventh Generation Natural Toilet Bowl Cleaner, Emerald Cypress & Fir

[http://www.ewg.org/guides/cleaners/1512-](http://www.ewg.org/guides/cleaners/1512-SeventhGenerationNaturalToiletBowlCleanerEmeraldCypressFir)

[SeventhGenerationNaturalToiletBowlCleanerEmeraldCypressFir](http://www.ewg.org/guides/cleaners/1512-SeventhGenerationNaturalToiletBowlCleanerEmeraldCypressFir)



Green Shield Organic Bathroom Cleaner, Fresh

<http://www.ewg.org/guides/cleaners/5443-GreenShieldOrganicBathroomCleanerFresh>



Green Shield Organic Toilet Bowl Cleaner

<http://www.ewg.org/guides/cleaners/5444-GreenShieldOrganicToiletBowlCleaner>



Drainbo The Natural Solution Natural Drain Cleaner

<http://www.ewg.org/guides/cleaners/2298-DrainboTheNaturalSolutionNaturalDrainCleaner?formulation=5970>

Note: EWG has no A rated Drain Cleaners: This product is a B with earlier versions rating F!

Dishwashing:



Seventh Generation Automatic Dishwasher Powder, Free & Clear

<http://www.ewg.org/guides/cleaners/1522-SeventhGenerationAutomaticDishwasherPowderFreeClear>



Seventh Generation Rinse Aid, Free & Clear

<http://www.ewg.org/guides/cleaners/1527-SeventhGenerationRinseAidFreeClear>



Green Shield Organic Squeeze Automatic Dishwasher Liquid Detergent, Lemongrass

<http://www.ewg.org/guides/cleaners/5446->



Babyganics Foaming Dish & Bottle Soap, Fragrance Free

<http://www.ewg.org/guides/cleaners/2633-BabyganicsFoamingDishBottleSoapFragranceFree>

Available from Amazon, direct to VI with dispenser refills.

Furniture/ Wood Floor Care:



Martha Stewart Clean Wood Floor Cleaner

<http://www.ewg.org/guides/cleaners/3284-MarthaStewartCleanWoodFloorCleaner>



Clean+Green Furniture Refresher

<http://www.ewg.org/guides/cleaners/5838-CleanGreenFurnitureRefresher>

Laundry:



Green Shield Organic Laundry Detergent, Free & Clear

<http://www.ewg.org/guides/cleaners/5451-GreenShieldOrganicLaundryDetergentFreeClear>



Seventh Generation Natural Powder Laundry Detergent, Real Citrus & Wild Lavender

[http://www.ewg.org/guides/cleaners/1534-](http://www.ewg.org/guides/cleaners/1534-SeventhGenerationNaturalPowderLaundryDetergentRealCitrusWildLavender)

[SeventhGenerationNaturalPowderLaundryDetergentRealCitrusWildLavender](http://www.ewg.org/guides/cleaners/1534-SeventhGenerationNaturalPowderLaundryDetergentRealCitrusWildLavender)



Seventh Generation Chlorine Free Bleach, Free & Clear

<http://www.ewg.org/guides/cleaners/1541-SeventhGenerationChlorineFreeBleachFreeClear>



Arm & Hammer Super Washing Soda Detergent Booster & Household Cleaner

[http://www.ewg.org/guides/cleaners/5346-](http://www.ewg.org/guides/cleaners/5346-ArmHammerSuperWashingSodaDetergentBoosterHouseholdCleaner)

[ArmHammerSuperWashingSodaDetergentBoosterHouseholdCleaner](http://www.ewg.org/guides/cleaners/5346-ArmHammerSuperWashingSodaDetergentBoosterHouseholdCleaner)

SUNSCREENS:

Best 235 Beach & Sport Sunscreens:

The Environmental Working Group’s mission is to empower people to live healthier lives in a healthier environment. With breakthrough research and education, we drive consumer choice and civic action.

EWG is a non-profit, non-partisan organization dedicated to protecting human health and the environment.

www.ewg.org/guides

<https://www.youtube.com/watch?v=HbB0HVS6h64>

EWG: Best 235 Beach & Sport Sunscreens:

The EWG has identified 235 Sunscreens that meet their criteria. Here is the link to their product list:

<http://www.ewg.org/2015sunscreens/best-sunscreens/best-beach-sport-sunscreens/>

EWG Sunscreen Guide: Read the Report.

<http://www.ewg.org/2015sunscreens/report/executive-summary/>

See the EWG report “8 Little Known Facts about Sunscreens”

<http://www.ewg.org/2015sunscreens/report/8-little-known-facts-about-sunscreens/>

EWG Sunscreen Hall of Shame

There are a lot of sunscreens on the market: some good, some bad and then the shameful.

Those in the last category are not only a waste of money and time but also potentially harmful. Here are our picks for products to banish from your beach bag.

- **Spray sunscreens** can be inhaled, and they don't cover skin completely.
- **SPF values above 50+** try to trick you into believing they'll prevent sun damage. Don't trust them. SPF protection tops out at 30 to 50.
- **Oxybenzone** can disrupt the hormone system.
- **Retinyl palmitate** may trigger damage, possibly cancer.

11 Worst Spray Sunscreens

These sunscreens are aerosol sprays with SPFs above 50+ and the harmful additives oxybenzone and retinyl palmitate.

Banana Boat Clear UltraMist Ultra Defense MAX Skin Protect Continuous Spray Sunscreen, SPF 110

Coppertone Sport High Performance AccuSpray Sunscreen, SPF 70

Coppertone Sport High Performance Clear Continuous Spray Sunscreen, SPF 100+

CVS Clear Spray Sunscreen, SPF 100

CVS Sheer Mist Spray Sunscreen, SPF 70

CVS Sport Clear Spray Sunscreen, SPF 100+

CVS Wet & Dry Sunscreen Spray, SPF 85

Neutrogena Fresh Cooling Sunscreen Body Mist, SPF 70

Neutrogena Ultra Sheer Body Mist Sunscreen Spray, SPF 100+

Neutrogena Ultra Sheer Body Mist Sunscreen Spray, SPF 70

Neutrogena Wet Skin Sunscreen Spray, SPF 85+

12 Worst Sunscreen Lotions

These sunscreen lotions claim SPFs above 50+ and contain oxybenzone and retinyl palmitate.

Banana Boat Sport Performance Sunscreen Lotion, SPF 100

Coppertone Sport High Performance Sunscreen Lotion, SPF 100

Coppertone Sport High Performance Sunscreen, SPF 75

Coppertone Sport Sunscreen Stick, SPF 55

Coppertone Ultra Guard Sunscreen Lotion, SPF 70+

CVS Sport Sunstick Sunscreen, SPF 55
CVS Sun Lotion Sunscreen, SPF 100
CVS Sun Lotion Sunscreen, SPF 70
Neutrogena Ultra Sheer Daily Liquid Sunscreen, SPF 70
NO-AD Sunscreen Lotion, SPF 60
NO-AD Sunscreen Lotion, SPF 85
Ocean Potion Protect & Nourish Sunscreen Lotion, SPF 70

11 Worst Sunscreens for Kids

These terrible kid and baby sunscreens have at least three strikes against them: 1) oxybenzone, 2) retinyl palmitate and 3) SPF's above 50+. Two have a fourth strike: they're aerosol sprays that can harm sensitive young lungs. Convenient? Yes. Good for kids? Absolutely not.

Banana Boat Clear UltraMist Kids Max Protect & Play Continuous Spray Sunscreen, SPF 110
Coppertone Kids Sunscreen Lotion, SPF 70
Coppertone Kids Sunscreen Stick, SPF 55
Coppertone Kids Wacky Foam Foaming Lotion Sunscreen, SPF 70+
Coppertone Water Babies Sunscreen Lotion, SPF 70+
Coppertone Water Babies Sunscreen Stick, SPF 55
Equate Kids Sunscreen Stick, SPF 55
Kroger Baby Sunscreen Lotion, SPF 70
Kroger Kids Sunscreen Lotion, SPF 70
Neutrogena Wet Skin Kids Beach & Pool Sunblock Spray, SPF 70+
Up & Up Kid's Sunscreen Stick, SPF 55

How we picked the Hall of Shame

1) Spray sunscreens

One in every four sunscreens in this year's database is a spray. People like sprays because they're easy to squirt on squirming kids and hard-to-reach areas. But they may pose serious inhalation risks, and they make it too easy to apply too little or miss a spot.

The FDA has expressed doubts about their safety and effectiveness but hasn't banned them. As long as they're legal, sunscreen manufacturers will make them.

2) Sky-high SPF

One eighth of the sunscreens we evaluated this year boast SPFs above 50+. SPF stands for "sun protection factor," but that outdated term refers only to protection against UVB rays that burn the skin. It has little to do with a product's ability to protect skin from UVA rays, which penetrate deep into the body, accelerate skin aging, may suppress the immune system and may cause skin cancer.

The worst thing about high-SPF products is that they give people a false sense of security and tempt them to stay in the sun too long. They suppress sunburns but raise the risk of other kinds of skin damage. The FDA is considering barring SPF above 50+.

Toxins To Avoid:

3) Oxybenzone

Half of the beach and sport sunscreens in this year's guide contain oxybenzone, an active ingredient in sunscreens. But it penetrates the skin, gets into the bloodstream and acts like estrogen in the body. It can trigger allergic skin reactions. Some research studies, while not conclusive, have linked higher concentrations of oxybenzone to disorders, including endometriosis in older women and, lower birth weights in newborn girls.

4) Retinyl palmitate

Nearly 20 percent of the sunscreens and SPF-rated moisturizers and 13 percent of SPF-rate lip products in this year's guide contain retinyl palmitate, a form of vitamin A. Night creams with this chemical may help skin look more youthful. But on sun-exposed skin, retinyl palmitate may speed development of skin tumors and lesions, according to government studies. Why does the FDA allow this "inactive ingredient" in sunscreens intended for use in the sun? The agency has been studying the chemical for years but hasn't made a decision. We have. The definitive study may not have been done, but we think we know enough to believe you're better off without sunscreens with retinyl palmitate.

Source: <http://www.ewg.org/2015sunscreen/hall-of-shame/>

Mosquito Repellants:

Natural mosquito repellants are recommended. Although natural repellants may not be as effective or last as long as conventional repellants and may contain skin allergens! (See chart below).

Locally made repellants!

LOVE ME NOT by Island Massage Company 340 69 3341

ALSO: Skin So Soft Bug Guard Plus Picaridin may be good choice.

EWG'S GUIDE TO BUG REPELLENTS: REPELLENT CHEMICALS

Source: <http://www.ewg.org/research/ewgs-guide-bug-repellents/repellent-chemicals>

Repellent Chemicals

Picaridin

Picaridin, developed by Bayer AG in the 1980s and sold in the U.S. since 2005, is not known to irritate skin and eyes, does not have a pungent odor like DEET and does not dissolve plastics (EPA 2005). It evaporates from the skin more slowly than DEET or IR3535 and may repel bugs for longer periods (Debboun et al. 2007).

In efficacy testing it performs like DEET, appearing to repel a wide range of pests (Badolo 2004, Barnard 2004, Carroll 2010, Consumer Reports 2010). The World Health Organization recommends Picaridin, along with DEET and IR3535, for protection against mosquitoes that carry diseases (WHO 2012). EPA registration data indicate that Picaridin at a concentration of 20 percent is effective against mosquitoes and ticks for 8 to 14 hours and for 3.5 to 8 hours at a concentration of 10 percent.

Picaridin does not carry the same neurotoxicity concerns as DEET but has not been tested as much over the long term. Overall, EWG's assessment is that Picaridin is a good DEET alternative with many of the same advantages and without the same disadvantages.

IR3535

IR3535, whose full chemical name is 3-[N-Butyl-N-acetyl]-aminopropionic acid, ethyl ester, is structurally similar to the naturally occurring amino acid B-alanine. Merck & Co., Inc., developed IR3535 in the mid-1970s. It has been used in Europe for more than 20 years but was not registered for use in the U.S. until 1999 (EPA 1999).

IR3535 can be very irritating to the eyes but poses few other safety risks. European authorities have received no reports of health problems caused by this chemical. Like DEET, IR3535 may dissolve or damage plastics. The manufacturer recommends avoiding contact with plastics other than polyethylene and polypropylene.

Merck recommends formulations with 10 to 30 percent IR3535 to repel biting insects and ticks (Merck 2013). *Consumer Reports* tests found that 20 percent IR3535 was slightly less effective than 15 to 30 percent DEET in repelling *Aedes* mosquitoes that sometimes carry yellow fever, dengue and encephalitis. *Consumer Reports* found that it performed as well as DEET against deer ticks and *Culex* mosquitoes that sometimes carry West Nile virus (Consumer Reports 2010).

This chemical is often found in products sold as sunscreens and repellents. We recommend avoiding these products because sunscreen should be reapplied every 2 hours. Following those instructions would over-exposed the user to bug repellent.

In sum, IR3535 is a good DEET alternative with many of the same advantages and fewer disadvantages.

DEET

DEET, registered for public use in 1957, is the most common mosquito and tick repellent. It is rated as very effective in repelling a wide range of mosquitoes, ticks and other bugs. DEET has been used billions of times and is a reasonable, if imperfect, choice.

On the plus side, if used as directed, DEET is considered safe by many public health organizations, including the Environmental Protection Agency, the Centers for Disease Control, the American Academy of Pediatrics and World Health Organization (AAP 2005, CDC 2013D, EPA 1998, Schutze 2013, WHO 2012). DEET is among those chemicals recommended by WHO for protection against disease-carrying mosquitoes and is the only repellent recommended by the CDC to protect against Lyme disease (CDC 2013D, WHO 2012).

In 1998 the EPA reviewed the first 40 years of public usage of DEET along with the known toxicity information and concluded that “the normal use of DEET does not present a health concern to the general U.S. population.” The agency found “no toxicologically significant effects in animal studies” (EPA 1998).

When we started our research, we were particularly concerned about the potential downsides of DEET. We still are. We urge consumers to handle DEET with caution. It is known to irritate the eyes and in intense doses may induce neurological damage (Abdel-Rahman et al 2001, ATSDR 2004, Corbel et al. 2009). In very rare cases DEET has been reported to impair the nervous system, with symptoms including seizures, tremors and slurred speech, most often after exposure to high concentrations of the chemical (ATSDR 2004, Briassoulis 2001). In addition, DEET gives off a distinct odor and can damage plastic, rubber and vinyl on a variety of gear including clothing, backpacks, glasses, watches and cameras (Schutze 2013).

In 1998, after reviewing case reports of seizures, the EPA concluded that the rate of adverse reactions appeared to be very low -- on the order of 1 per 100 million persons. The agency instructed manufacturers to provide additional instructions for minimizing overexposure to DEET. It authorized DEET for use by children but banned marketing claims that DEET products are “safe for children” (EPA 1998). EPA said it had “no evidence that would lead [it] to believe that DEET is uniquely toxic to infants and/or children,” but it added that its personnel still had “concerns regarding these seizures, especially for children who are more susceptible to seizures in general and who receive a higher dose of DEET due to a greater surface area to body weight ratio” (EPA 1998).

Laboratory studies conducted since the 1998 EPA review have suggested that DEET exposure can affect the nervous systems of rats (Abdel-Rahman et al 2001, Corbel et al. 2009). People who use DEET daily have reported suffering symptoms including rashes, dizziness, difficulty concentrating and headaches (ATSDR 2004). Studies using DEET alongside the pesticide permethrin have raised concerns that DEET could cause neurological damage and epigenetic changes (Abdel-Rahman et al 2001, Manikkam et al 2012).

Still, after reviewing the evidence, EWG has concluded that DEET is generally safer than many people assume and remains a viable option for people in areas infested with disease-carrying pests. As rates of Lyme disease and other bug-borne illnesses rise, people need bug repellents that work well when it counts.

The EPA allows U.S. sales of repellents with up to 100 percent DEET, but increasing concentration does not increase efficacy. Longer protection times can be achieved by time-release products. We think it makes sense to follow Canadian government recommendations limiting DEET to 30 percent in any product and even weaker concentrations for young children (Canada 2012). The Canadian government’s advice conflicts with the CDC’s recommendation to use a product containing 20 to 50 percent DEET for adult protection against Lyme disease, and a product containing 20 to 30 percent DEET for children’s protection. Consumers must make their own decisions about which advice to follow when it comes to using DEET on children in areas with high risk of Lyme disease.

Health Canada Recommendations for DEET Usage

Age	Recommendations
0 to 6 months	No DEET
6 to 24 months	Only when bug risks are high 5-10% DEET products Limit to 1 application per day
2 to 12 years	5-10% DEET Limit to 3 applications per day. Avoid prolonged use

Oil of Lemon Eucalyptus /PMD

Oil of Lemon Eucalyptus is the trade name for the repellent that originated as an extract of the eucalyptus tree native to Australia. The tree extract is refined to intensify the concentration of the naturally occurring substance *para*-menthane-3,8-diol, also known as PMD, from 1 to 65 percent. The resulting oil is very different from unprocessed tree oil.

Most Oil of Lemon Eucalyptus products on the market are made by Spectrum Brands and sold under the brand names Repel and Cutter. These have concentrations of 30 percent Oil of Lemon Eucalyptus and 20 percent PMD. Some testing has shown that concentrations of 20 to 26 percent PMD may perform as well as 15 to 20 percent DEET against both mosquitoes and ticks (Barnard 2004, Consumer Reports 2010). PMD's maximum protection time against mosquitoes and ticks is shorter than DEET's, according to EPA documents.

The **Repel website** does not recommend Oil of Lemon Eucalyptus/PMD when the risk of West Nile virus is high or against sand flies or the biting midges known as no-see-ums.

Refined Oil of Lemon Eucalyptus is classified as a biochemical pesticide, which the EPA defines as a naturally occurring ingredient that controls pests by non-toxic mechanisms. Ingredients in this category can qualify for EPA approval with less safety testing than synthetic chemical pesticides. However, unlike botanicals, these products have to submit tests showing effectiveness.

Because the dangers to children have not been thoroughly explored, products with Oil of Lemon Eucalyptus and PMD have labels that warn, "Do not use on children under the age of 3" (NY 2002). The CDC also advises not to use on children under three years of age (CDC 2013F). Citronellol and other chemicals in the extract are known allergens.

Synthetic PMD can be found in some repellent products at a concentration of 10 percent. These products provide only a few hours of protection and warn against use on children younger than

3. They present less risk of allergic skin reaction than natural PMD.

Scientists do not know enough to determine differences between PMD and Oil of Lemon Eucalyptus, but one study found that Oil of Lemon Eucalyptus provided longer protection than the equivalent concentration of synthetic PMD.

We conclude that Oil of Lemon Eucalyptus has disadvantages and is not appropriate for all situations but is a good choice for people who want a botanically based bug repellent.

Botanical repellents

EWG research indicates that unregistered botanically based bug repellents are not often the best choice. The most common contain castor oil, cedar oil, citronella oil, clove oil, geraniol oil, lemongrass oil, peppermint oil, rosemary oil and soybean oil. While effectiveness varies, and there may be a few exceptions, most botanicals repel bugs for a short time, if at all.

There are few data available on botanicals because the EPA has classified them as "minimum risk" pesticides, meaning, they are exempt from registration and efficacy testing. But "minimum risk" does not mean safe. Products based on these botanical ingredients generally contain known human allergens – often at much higher concentrations than personal care products.

The EPA recently convened a Science Advisory Panel meeting to discuss the possibility of requiring efficacy testing for all skin-applied repellents, including botanicals. If the agency mandates such testing, it could produce solid evidence to support – or refute – advertising claims by botanical repellent makers.

EWG recommends that consumers who are in high-risk areas for bug-borne disease or need long-lasting, effective bug protection avoid botanically-based bug repellents, aside from Oil of Lemon Eucalyptus. In other cases, you may find it worth your while to try botanical repellents to identify one that works well for you. To determine if a product might cause an allergic reaction, EWG suggests testing it on a small patch of skin before slathering all over.

Botanical oil	Likely to contain these known human allergens**
Castor oil	none
Cedar oil	none
Citronella oil	geraniol*, citronellol*, limonene*, linalool*, farnesol*
Clove oil	eugenol*
Oil of Lemon Eucalyptus (PMD 65%)	citronellol, pinene, caryophyllene
Geraniol oil	geraniol*, citronellol*, linalool*, limonene*
Lemongrass oil	geraniol*, citral*, citronellol*, limonene*
Peppermint oil	menthol, caryophyllene, limonene*, pinene

Rosemary oil	pinene, camphor, caryophyllene, limonene*, terpineol, linalool*
Soybean oil	none

*In Europe, cosmetics applied to the skin must disclose these ingredients when the concentration exceeds 0.001 percent (SCCS 2003).

** Known human allergens identified by the European Commission Scientific Committee on Consumer Safety (SCCS 2011).

Landscaping & Gardening

Pesticides:

Avenger Organics™ Natural Bug & Insect Killer is 100% Natural and is proven to eliminate bugs without the harsh pesticides found in many traditional treatment methods. Easy to use, it works on ants (including fire ants), mites, roaches, flies, spiders, wasps, hornets, bees, earwigs, mosquitoes, moths, and other flying insects. After spending years of research on safe treatments for bugs and insects, we have developed **an exclusive formula not found in any other product. Avenger Organics™ Natural Bug & Insect Killer** contains only 100% EPA exempt ingredients. Highly effective, environmentally safe indoor/outdoor insecticide using **nature's own botanically-derived, organic insecticide**.

Bug and Insect Killer Benefits:

- **Made from natural extracts.**
- **100% EPA exempt ingredients** - 25(b).
- **Kills Adults, Larva & Eggs.**
- **Child & Pet Safe.**
- **Long lasting repellency.**
- **Safe for indoor and outdoor use.**
- **Smells great!**
- **Made in the USA.**

Active Ingredients: Peppermint Oil and Orange Oil.

Available Sizes: 24 ounce and 1 gallon Ready-To-Use sizes.

<http://www.greenearthagandturf.com/natural-bug-and-insect-killer-avenger-organics-insecticide.shtml>

Recommended by Josephine @ Coral Bay Garden Center

Organic Pest Control Choices - A Quick Look

● Diatomaceous Earth

This is the number one seller in the natural pest control market, and with good reason. This naturally occurring substance contains the fossilized remains of tiny animals known as diatoms. When seen under a microscope, the reason for this product's bug killing power becomes clear. It is in fact a highly abrasive powder that causes irreversible and fatal damage to the exoskeleton of any insects that come into contact with it. This leads to dehydration and death within hours or days of contacting the powder.

The good news however is that because this powder only damages the bodies of insects, it is one hundred percent safe to use in any setting in the home. It is completely harmless to both children and pets, and will not stain or damage any furniture or clothing like some chemical pesticides can. However when applying it, you will want to make sure that the area is kept dry, as it will not be as effective if it should get wet or damp.

● Boric Acid

Like diatomaceous earth, [boric acid](#) acts as a desiccant, meaning that it attacks the exterior shell of insects such as roaches and ants, and releases precious moisture that they need to live. Again, like other powdered desiccants, it should be kept dry wherever it is applied to have the greatest effect. It also provides insect killing power with posing any threat to the health and well-being of domestic animals, children or anyone else in the home.

Source: [http://www.domyownpestcontrol.com/natural-organic-c-31.html?utm_source=msn&utm_medium=cpc&utm_campaign=\(roi\)+general+pest+control](http://www.domyownpestcontrol.com/natural-organic-c-31.html?utm_source=msn&utm_medium=cpc&utm_campaign=(roi)+general+pest+control)

OMRI ORGANIC MATERIALS REVIEW INSTITUTE

WWW.OMRI.ORG

OMRI maintains a database of organic farm and gardening products suitable for use in certified organic farms. **To be extra sure that a product is safe, choose one with an OMRI listing AND LABEL**

HERBICIDES & (Weed killers)



The best alternative for edges and space between pavers in walkways and driveways.

Avenger Weed Killer Concentrate (32 oz) - PWC654



Avenger Weed Killer is an earth-friendly, citrus-oil based weed killer designed to meet the demands and needs of gardeners looking for an alternative to synthetic weed killers.

Multiple trials have demonstrated effectiveness against a wide range of weeds. Controls most annual and perennial weeds, both grasses and broadleaf. Complete coverage is required. The active ingredient is d-limonene, a citrus oil extract that strips away the waxy cuticle from leaves, causing fast wilting (necrosis), dehydration and death. Other ingredients include castor oil and emulsifiers. For best results, treat weeds 6 inches

or smaller. Larger plants, grasses and perennials may need repeat applications.

<http://www.groworganic.com/avenger-weed-killer-conc-32-oz.html>

Toxins to Avoid: Landscaping & Gardening

Monsanto's glyphosate (Roundup) herbicide, “probable human carcinogen”

The International Agency for Research on Cancer (IARC), a division of the World Health Organization (WHO), in 2015 announced that 2,4-D is a “possible human carcinogen,” along with Monsanto's glyphosate (Roundup) herbicide. *In March 2015 IARC convened a meeting to evaluate the potential carcinogenic risks to humans from several pesticides, including glyphosate, an active ingredient in many popular herbicides like Roundup brand herbicides. IARC concluded that glyphosate belongs in a 2A category as **probably carcinogenic to humans**, (copied from Monsanto's website.)*

Monsanto's Roundup Ready Crop System Puts Monarch Butterflies at Brink of Extinction

<http://articles.mercola.com/sites/articles/archive/2013/07/30/glyphosate-toxicity.aspx>



“The alarming decline of monarchs is driven in large part by the massive spraying of glyphosate herbicide on genetically engineered crops, which has virtually eliminated monarch habitat in the corn and soybean fields that dominates the Midwest landscape,” said Bill Freese, Center for Food Safety science policy analyst and co-author of the report. **Photo credit: Shutterstock. 40**

RoundUp : Glyphosate toxicity to Humans

(NaturalNews) Monsanto's infamous Roundup contains the hotly debated compound called glyphosate. This merciless herbicide is also found in 750 or more U.S. products. An herbicide like this infiltrates the landscape and accumulates in mammals, especially bone, hindering cellular detoxification along the way.

A destroyer, glyphosate annihilates a plant's *building blocks of life*, tearing apart amino acids. By disrupting the "shikimate pathway" in plants and microorganisms, glyphosate creeps inside leaves and stalk, raping natural life processes. Glyphosate also destroys the beneficial microorganism in the human gut, destroying the human immune system.

http://www.naturalnews.com/041464_glyphosate_Monsanto_toxicity.html#ixzz3hMMIVwRa

Weed-Whacking Herbicide Proves Deadly to Human Cells

Used in gardens, farms, and parks around the world, the weed killer Roundup contains an ingredient that can suffocate human cells in a laboratory, researchers say
By [Crystal Gammon](#) and [Environmental Health News](#) | June 23, 2009

Used in yards, farms and parks throughout the world, [Roundup](#) has long been a top-selling weed killer. But now researchers have found that one of Roundup's inert ingredients can kill human cells, particularly embryonic, placental and umbilical cord cells.

The new findings intensify a debate about so-called "inerts" — the solvents, preservatives, surfactants and other substances that manufacturers add to pesticides. Nearly 4,000 inert ingredients are approved for use by the U.S. Environmental Protection Agency.

Glyphosate, Roundup's active ingredient, is the most widely used [herbicide](#) in the United States. About 100 million pounds are applied to U.S. farms and lawns every year, according to the EPA.

he French team, led by [Gilles-Eric Seralini](#), a University of Caen molecular biologist, said its results highlight the need for health agencies to reconsider the safety of Roundup.

"The authorizations for using these Roundup herbicides must now clearly be revised since their toxic effects depend on, and are multiplied by, other compounds used in the mixtures," Seralini's team wrote.

Controversy about the safety of the weed killer recently erupted in Argentina, one of the world's largest exporters of soy.

Last month, an environmental group petitioned Argentina's Supreme Court, seeking a temporary ban on glyphosate use after an Argentine scientist and local activists reported a high incidence of birth defects and cancers in people living near crop-spraying areas. Scientists there also linked genetic malformations in amphibians to glyphosate. In addition, last year in Sweden, a scientific team found that exposure is a risk factor for people developing non-Hodgkin lymphoma.

Inert ingredients are often less scrutinized than active pest-killing ingredients. Since specific

herbicide formulations are protected as trade secrets, manufacturers aren't required to publicly disclose them. Although Monsanto is the largest manufacturer of glyphosate-based herbicides, several other manufacturers sell similar herbicides with different inert ingredients.

The term “inert ingredient” is often misleading, according to [Caroline Cox](#), research director of the Center for Environmental Health, an Oakland-based environmental organization. Federal law classifies all pesticide ingredients that don't harm pests as “inert,” she said. Inert compounds, therefore, aren't necessarily biologically or toxicologically harmless – they simply don't kill insects or weeds.

<http://www.scientificamerican.com/article/weed-whacking-herbicide-p/>

'Inert' Ingredients Does NOT Mean They Are Inactive...

Similarly, another study published that year in the journal *Toxicology*^{6,7} revealed that inert ingredients such as solvents, preservatives, surfactants and other added substances are anything but “inactive.” They *in fact contribute to toxicity in a synergistic manner*, and ethoxylated adjuvants in glyphosate-based herbicides were found to be “active principles of human cell toxicity.”

Source: [Toxicology](#)^{6,7}

RoundUp Toxicity to Aquatic life?

By Dr. Mercola

*One such study, published in the journal *Ecotoxicology*, found that glyphosate is toxic to Water fleas (*Daphnia magna*) at miniscule levels that are well within the levels expected to be found in the environment.*

The results indicate that aquatic invertebrate ecology can be adversely affected by relevant ambient concentrations of this major herbicide. We conclude that glyphosate and Roundup toxicity to aquatic invertebrates have been underestimated and that current European Commission and US EPA toxicity classification of these chemicals need to be revised.”

According to regulators, glyphosate is thought to be practically nontoxic to aquatic invertebrates. The water flea is a widely accepted model for environmental toxicity, so this study throws serious doubt on glyphosate's classification as environmentally safe.

In 2009, a French court found Monsanto guilty of lying; falsely advertising its [Roundup](#) herbicide as “biodegradable,” “environmentally friendly” and claiming it “left the soil clean.”

<http://articles.mercola.com/sites/articles/archive/2013/07/30/glyphosate-toxicity.aspx?>

Give Bees a Chance: Go Organic!

Bees pollinate a significant majority of the world's food, but they are disappearing at an alarming rate.

The mysterious mass death of honeybee populations is called Colony Collapse Disorder (CCD). **Neonicotinoid pesticides** weaken the bee's immune system and cause disorientation, damaging the bee's ability to find its way back to the hive. **Other toxic pesticides, such as glyphosate, the main ingredient in Roundup, also contribute to CCD.** You can help protect bees by choosing organic food, grown without these toxic insecticides, and planting bee friendly gardens.

<https://www.organicconsumers.org/campaigns/save-bees>

Neonicotinoids are a class of neuro-active insecticides chemically similar to nicotine. In the 1980s Shell and in the 1990s Bayer started work on their development.^[1] The neonicotinoid family includes acetamiprid, clothianidin, imidacloprid, nitenpyram, nithiazine, thiacloprid and thiamethoxam. Imidacloprid is the most widely used insecticide in the world.

In the late 1990s neonicotinoids came under increasing scrutiny over their environmental impacts.^[4] Neonicotinoid use was linked in a range of studies to adverse ecological effects, including honey-bee colony collapse disorder (CCD) and loss of birds due to a reduction in insect populations. In 2013, the European Union and a few non EU countries restricted the use of certain neonicotinoids.^{[5][6][7]}

As of 2011, seven neonicotinoids from different companies are on the market.^[11]

Name	Company	Products	Turnover in million US\$ (2009)
Imidacloprid	Bayer CropScience	Confidor, Admire, Gaucho, Advocate	1,091
Thiamethoxam	Syngenta	Actara, Platinum, Cruiser	627
Clothianidin	Sumitomo Chemical /Bayer CropScience	Poncho, Dantosu, Dantop	439

Acetamiprid	Nippon Soda	Mospilan, Assail, ChipcoTristar	276
Thiacloprid	Bayer CropScience	Calypso	112
Dinotefuran	Mitsui Chemicals	Starkle, Safari, Venom	79
Nitenpyram	Sumitomo Chemical	Capstar, Guardian	8

<https://en.wikipedia.org/wiki/Neonicotinoid>

GMOs Are Killing the Bees, Butterflies, Birds and . . . ?

When the honeybees, our most important food pollinators, started dropping like proverbial flies, scientists scrambled to identify their killer (or killers). Attention eventually turned to the increased use of a class of pesticides known as neonicotinoids. Scientists now believe at least some of these pesticides play a major role in Colony Collapse Disorder (CCD), the ongoing demise of honeybee colonies.

Who makes the neonicotinoids? Syngenta, Bayer CropSciences and Dow Agrosciences.

Who's using them, and for what purpose? Companies like Monsanto, Bayer, Dow Agrosciences . . . in the herbicides and pesticides and seeds they sell to farmers who grow genetically engineered crops. Crops that eventually end up in our food, or in the feed used to fatten up animals in factory farms-animals we slaughter for food.

<https://www.organicconsumers.org/essays/gmos-are-killing-bees-butterflies-birds-a>

Enlist Duo: a combination of two herbicides: glyphosate (initially marketed as Roundup) and 2,4-D, an older, toxic herbicide (*a main ingredient in Agent Orange*).

NRDC Sues EPA to Block New Pesticide That Threatens Monarch Butterflies, Human Health

WASHINGTON (October 15, 2014)—The Natural Resources Defense Council today filed suit to block the use of a powerful, newly approved weed killer that will wreak further destruction on monarch butterfly populations already devastated by agricultural chemicals and poses risks to human health.

The suit was filed in the D.C. Circuit court immediately after the Environmental Protection Agency approved the use of “Enlist Duo,” a combination of two herbicides: glyphosate (initially marketed as Roundup) and 2,4-D, an older, toxic herbicide. Enlist Duo is intended for use on corn and soybeans genetically modified to be resistant to this chemical cocktail. **Glyphosate, the most widely used weed killer in the country, is the chief cause of the decline of the monarchs, and scientists have raised serious questions about 2,4-D’s impact on human health.**

“This weed killer is more bad news for monarch butterflies, whose migrating population has dropped by more than 90 percent in recent years because glyphosate has wiped out the milkweed they need to survive,” said Sylvia Fallon, a senior scientist at NRDC. “EPA completely ignored the impact on monarchs when it granted this new approval, and seriously underestimated the toxicity for people.”

<http://www.nrdc.org/media/2014/141015a.asp>

“2,4-D, produced by Dow Chemical, was a component of ‘Agent Orange,’ the toxic defoliant used in Vietnam,” warns the Center for Food Safety (CFS). “It is the 7th largest source of dioxins in the U.S.

Source: Center for Food Safety (CFS)

One in six federal disability checks covers Agent Orange-related health damage among veterans

Although they are reluctant to admit that Agent Orange was in any way responsible for harming American military servicemen during the Vietnam War, the federal government has been quietly paying out benefits to thousands of them for years. The White House Office of Management and Budget, which approved the new disability benefits, admits that one in six disability checks issued by the VA is for Agent Orange-related health damage.

This is striking in light of the fact that this same federal government, through its Environmental Protection Agency (EPA) arm, recently approved Dow Chemical's "Enlist Duo" herbicide, which contains an Agent Orange component known as 2,4-D. **The International Agency for Research on Cancer (IARC), a division of the World Health Organization (WHO), recently announced that 2,4-D is a "possible human carcinogen," along with Monsanto's glyphosate (Roundup) herbicide.**

With 2,4-D's approval, millions of acres of American farmland will now presumably be carpet-bombed with the same chemical defoliant ingredient used as a weapon of mass destruction during the Vietnam War. However, for today's American consumers, there likely won't be any federal compensation for damages caused by exposure to this noxious poison.

"2,4-D, produced by Dow Chemical, was a component of 'Agent Orange,' the toxic defoliant used in Vietnam," warns the Center for Food Safety (CFS). 2,4-D and other herbicides of its class have been independently associated with deadly immune system cancers, Parkinson's disease, endocrine disruption, and reproductive problems, with children at particular risk."

The Natural Resources Defense Council (NRDC) has filed a lawsuit against the EPA for failing to respond to a petition to ban 2,4-D, which was rushed to the market by the U.S. Department of Agriculture (USDA) with no consideration for how it might affect the environment and humans, particularly young children.

"Over the past 40 years, dozens of studies have shown the connection between 2,4-D and non-Hodgkin's lymphoma (cancers of the blood) and soft-tissue sarcoma in people," warns NRDC. "Other research reveals that 2,4-D enters breast milk and semen where it disrupts normal hormone functions, which can also cause serious and lasting effects during fetal and infant development."

Sources:

<http://theantimedia.org>, <http://www.nbcnews.com> ;<http://www.centerforfoodsafety.org>
<http://www.naturalnews.com> ;<http://www.nrdc.org>

Toxins to Avoid for a Healthy Home:

Chemicals in Plastics



Plastic is everywhere—it's used in consumer products and packaging of all kinds. And while it solves a lot of problems for manufacturers and can seem convenient to consumers, there are also serious risks to human health and the environment from its widespread use.

Three plastics have been shown to leach toxic chemicals when heated, worn or put under pressure: polycarbonate, which leaches [bisphenol A](#); polystyrene, which leaches [styrene](#); and PVC, or polyvinyl chloride, which break down into [vinyl chloride](#) and sometimes contains [phthalates](#) that can leach.

And for more specific information about these and other chemicals found in plastics, including what they do and why they're bad for you, look below.

Bisphenol A (BPA)

Even though plastic is everywhere, there's a lot you can do to reduce your use of the most toxic plastics.

[Tips for protecting your family from plastics >](#)

[Bisphenol A](#) (BPA) is one of the most pervasive chemicals in modern life. **It's a building block of polycarbonate (#7 is often polycarbonate) plastic and is used in thousands of consumer products, including [food packaging](#).** BPA exposure may disrupt normal breast development in ways that predispose women for later life breast cancer.

Phthalates

[Phthalates](#) are a group of endocrine-disrupting chemicals found in PVC or #3 plastic. Phthalate exposure has been linked to [early puberty](#) in girls, a risk factor for later-life breast cancer. Some phthalates also act as weak [estrogens](#) in cell culture systems.

Vinyl Chloride

[Vinyl chloride](#) is formed in the manufacture of polyvinyl chloride (PVC) or #3 plastic. **It was one of the first chemicals designated as a known human carcinogen by the National Toxicology Program (NTP) and the International Agency for Research on Cancer (IARC).** It has also been linked to increased mortality from breast cancer among [workers](#) involved in its manufacture.

Dioxin

Dioxin is formed in the manufacture of polyvinyl chloride (PVC) or #3 plastic. Dioxin has been classified by the International Agency for Research on Cancer (IARC) and the Environmental Protection Agency (EPA) as a known human carcinogen, and is also an [endocrine disruptor](#).

Styrene

Styrene can leach from polystyrene or #6 plastic and is found in Styrofoam food trays, egg cartons, disposable cups and bowls, carryout containers and opaque plastic cutlery. It has been classified by the International Agency for Research on Cancer (IARC) as a possible human carcinogen.

<http://www.breastcancerfund.org/clear-science/environmental-breast-cancer-links/plastics/?referrer=https://search.yahoo.com/>

Common VOCs to Avoid		
NAME OF VOC	EXAMPLES OF PRODUCTS CONTAINING IT	POSSIBLE ILL HEALTH EFFECTS
BENZENE	Gasoline * Paints and some art supplies * Motor vehicle exhaust * Cigarette smoke * Industrial solvents	Lab and animal studies link inhalation to leukemia and other blood cell cancers.
METHYLENE CHLORIDE	Paint stripper * Film coatings * Metal cleaning * Aerosols for paints, automotive products and insect sprays	Inhalation can cause cancer of lungs, liver and benign mammary (breast) gland tumors in animals. * Noncancer effects in humans include headaches, nausea, dizziness and memory loss.
TETRACHLOROETHYLENE (perchloroethylene or PERC)	Dry cleaning * Textile processing * Metal degreasing	Bladder cancer, non-Hodgkin lymphoma and multiple myeloma is higher in workers exposed to the chemical. * Living closer to a PERC dry cleaner is associated with an increased risk of developing kidney disease.
FORMALDEHYDE	Tobacco smoke * Pressed-wood products * Fertilizers * Glues * Certain types of insulation * Unvented fuel-burning appliances (wood stoves, gas stoves, kerosene heaters) * Some disinfectants, antibacterial soaps and beauty products	Inhalation may lead to nose and throat cancer, leukemia, respiratory allergies in kids and asthma attacks in susceptible people.
NAPHTHALENE*	Industry and tailpipe emissions * Woodstoves * Mothballs and moth flakes * Cigarettes * Toilet and diaper pail deodorizers	Inhalation can lead to chronic lung irritation, cataracts and retinal damage, as well as a special kind of anemia (hemolytic anemia) in infants born to mothers who sniffed and ingested mothballs during pregnancy. * Animal studies have linked exposure to lung and other cancers.
PARA-DICHLOROBENZENE* (also known as PDCB or 1,4-dichlorobenzene)	Pesticides to control moths and insects * Deodorizers for toilet bowls and diaper pails	It's harmful to the liver, skin and central nervous system. * It can cause liver cancer and reduced sperm count in animals. * Because it's listed as a possible carcinogen in humans, California has restricted sales of consumer goods and New York has restricted sales of PDCB-containing toilet deodorizers.



*A word about naphthalene and para-dichlorobenzene. Both have numerous uses, including as pesticides, especially against moths (mothballs and moth flakes) and deodorizers (in toilet bowls and diaper pails). Research by Professor Stuart Batterman and colleagues shows that, in homes where naphthalene is used liberally, this chemical appears "to eclipse risks attributable to other indoor air pollutants that have been identified to pose chronic health risks with the exception of particulate matter and perhaps radon." His group states that the most efficient way to prevent high exposures is to ban the use of naphthalene-containing mothballs. Para-dichlorobenzene, which has become a substitute for naphthalene, has its own health risks and should also be avoided.

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The Risks that Mattresses can Bring You



Recent studies show that flame retardants, typically found in couches, mattresses, and foam blocks, are very harmful. In fact, your very own couches may even kill you in the long run. The types of people who are most exposed to these chemicals are gymnasts and firemen. One, gymnasts always exposes themselves to foam blocks during trainings. Two, firemen expose themselves to fire retardants when they get into buildings, houses, and other edifices on fire. Both scenarios have a common bottom line – the release of chemicals thru pressing and burning, which are then inhaled by these people, causing them long term diseases that are often detected a decade or two after continuous exposure to it.

Why do manufactures make foams with fire retardants?

To understand the presence of these fire retardants in our foams, it is imperative that we first know the reason why manufacturers incorporate these substances in their products. From its name alone, these chemicals are utilized to inhibit or stop the spread of fire. This explains why most mattresses don't catch fire easily. However, when we talk about fire retardants, we don't refer to one chemical only. The chemicals involved include the [minerals aluminum hydroxide](#), [magnesium hydroxide](#), [borates](#), [paraffins](#), [organohalogen compounds](#), and many other dizzying chemicals that only God knows what. While we want manufacturers to zero out their products of flame retardants, they certainly cannot do it breezily since laws require them to have it in certain items like furniture, textiles, electronics, and insulation.

It should be noted that in 2005, US manufacturers willingly ceased producing foams with brominated fire retardants because the European Union fought very hard to ban the chemical from its products. [Polybrominated diphenyl ether](#) is the main component of this chemical, a substance that is shown to cause endocrine disruption, neurological woes, and fertility issues.

Health concerns

One of the biggest woes of consumers is the drastic effects that fire retardants can contribute to human health. In the recent study, which is mentioned above, experts found out that these compounds are not chemically bound, and they have the potential to join the air even without burning or immersing the object in the water. This is the main reason that people could still get affected by the chemicals' negative impact to one's health even when they only sit on their couch or sleep on their mattress. Nevertheless, sitting on the couch is way less of an exposure than actually inhaling the chemicals on fire like what firefighters do, and landing on foam pits and block foams on face like what gymnasts experience every day. The foams are compressed every minute, and such activity can release the chemical compounds little by little, which can literally grow overtime.

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Let's take for example the story of a gymnast who has troubles conceiving. In her tests, a medical practitioner found out that she has high levels of fire retardants in her blood, causing her to experience fertility issues. On the one hand, a survey showed that gymnasts have more levels of fire retardants in their body compared to non-gymnasts who participated in the survey. A test was also conducted to check a gymnast's natural level of exposure to the chemicals pre and post practice. It was shown that their bodies have lower levels of fire retardants prior to practice, which increases after the training. The regular increase of the chemical in their body can add up and cause several health woes later in life.

Another pressing issue concerning fire retardants is an ex firefighter's battle with a rare cancer called transitional cell carcinoma. Experts note that such illness is quite uncommon, and industry workers are the ones who often experience this type of disease. Later did he know that his profession exposes him to high levels of fire retardants, particularly during fire fighting scenes when they had to snake through buildings and edifices in blazing fire. When polyurethane foams are on fire, fire retardants are released to the air in tremendous amounts, which are then inhaled by people in the nearby area. Because of this, firefighters are exposed to the said chemical even without knowing it.

How to avoid exposure to fire retardants?

Because of the negative results that flame retardants can cause to our body, it is imperative that we find means on how to avoid exposing ourselves to products that contain them.

- 1. Keep mattress covers intact and replace any misshapen or scratched covers. Always buy foams that are secured with protective covering.
- 2. Opt for vacuums that have [HEPA filters](#). These don't only clean dusts, dirt, and small particles from the environment, but also trap chemicals from the air.
- 3. Be an eco-friendly consumer by buying cushions and mattresses that are made from all-natural materials. If you can't find any, check the fire retardants used by the manufacturer on their products.

Source: <http://www.thegreenguide.com/the-risks-that-mattresses-can-bring-you>

Water (Ocean) Conservation and Plastics!



Water is infested with "plastic smog"

10 Ways to Kick Plastics

- 1. Bag it.** Bring reusable bags on every trip to the store.
- 2. Take back the tap.** Instead of bottled water, use a reusable bottle or glass jar and fill it at the tap.
- 3. Ditch the zip.** Store food in glass containers rather than zip-top bags.
- 4. Pack a waste-free lunch.** Get a lunch box and fill it, rather than buying a meal sealed in plastic.
- 5. Drift away from plastic packaging.** Buy meat wrapped in butcher paper and keep veggies loose or in a reusable bag.
- 6. Reimagine takeout.** Bring your own containers and ask restaurant staff to use them to pack your food.
- 7. Straws are for suckers.** When ordering, say, "No straw, please," or carry your own stainless-steel straw.
- 8. Party plastic-free.** Treat guests to reusable partyware or serve finger foods that don't need utensils.
- 9. Clean up your soap.** Read labels and stop using products containing microbeads.
- 10. Get active.** Advocate for laws that make businesses accountable for the plastics they produce.

—Jack Johnson

FACT: OCEAN ORGANISMS GENERATE HALF OF ALL THE OXYGEN WE BREATHE ON EARTH

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Diet & Water Conservation!

You can't be an environmentalist, you can't be an ocean steward, without truly walking the walk. And you can't walk the walk in the world of the future, the world ahead of us, the world of our children, not eating a plant-based diet.

—DIRECTOR JAMES CAMERON ON
VEGANISM'S POSITIVE EFFECT ON
THE ENVIRONMENT.



EcoDiet

On average, a vegan consumes nearly 600 fewer gallons of water per day than someone who eats the typical American diet.

Diet & Water Conservation!

*Normally one would not think of these two topics as having a huge relationship between them! However since 70% of our food production comes from **big Ag corporate polluters**, who poison our soil and poison our water to produce the food we eat, there is a direct relationship!*



THINK. EAT. THRIVE™ VegNews 30