



## Contaminants of Emerging Concern (CECs) Guide to Contaminant-Free Shopping



### What are Contaminants of Emerging Concern (CECs)?

As a result of everyday household use, trace amounts of chemicals from consumer products are accumulating in downstream water sources. CECs are known or suspected toxins or endocrine disruptors, meaning they interfere with the normal functioning of hormones, and may be linked to mutations and other biological abnormalities in aquatic life and human health risks. Traditional wastewater treatment does not effectively remove all CECs, allowing their release into the environment even after water has been treated. Scientists have not yet characterized what level of exposure to these suspected toxins and endocrine disruptors is harmful to humans.



### How to Use This Guide

This buyer's guide is intended to help consumers avoid exposure to harmful contaminants through making informed shopping choices. This guide includes a glossary of CECs, and then provides information covering the categories of food and personal care products. The guide provides information about each CEC to watch out for, where it is found, alternative product choices, and local stores to purchase the safer items. Consult this buyer's guide when you are making your shopping list or bring it along to the store to consult for safe product purchases.

### Glossary

**Parabens:** Parabens are an anti-fungal agent used in many cosmetics and personal care products. They are estrogenic, and can affect the endocrine system of both humans and wildlife. Parabens include methylparaben, ethylparaben, propylparaben and butylparaben.

**Butylated Hydroxyanisole (BHA):** BHA is an antimicrobial preservative used in food and cosmetics. It is suspected to be carcinogenic, toxic, and an endocrine disruptor.

**Benzophenone (Oxybenzone, Avobenzone):** Benzophenone is a UV blocker used to preserve color and scents in many personal care products. It is an endocrine disruptor, affecting the endocrine system by attaching itself to the receptor sites and mimicking hormonal activity. It has been found to bioaccumulate in fish.

**Fragrances:** Synthetic or artificial fragrances can be highly toxic, and can accumulate in the environment and wildlife. Some fragrances have also been found in human breast milk. Synthetic fragrance is used for its scent, but serves no other useful purpose in products

**Triclosan:** Triclosan is an anti-microbial chemical commonly found in soaps, and toothpastes. It has been shown to bioconcentrate in fish and human breast milk. It is also linked to thyroid disorders in wildlife and can react with sunlight in surface waters to form harmful pollutants.

**Bisphenol A (BPA):** BPA is a toxic chemical used in certain plastics and resins that are found in bottles, packaging, containers, stainless steel bottle linings and can linings. The National Institutes of Health and Food and Drug Administration are concerned about the potential effects of BPA on the brain, behavior, and prostate gland in fetuses, infants, and young children.

**Surfactants:** Surfactants are chemicals that break down grease. They are primarily used in laundry detergents and dish soaps. They are often not listed on labels, so it can be difficult to determine if they are present in products. Surfactants break down into chemicals that are toxic to aquatic wildlife. The U.S. Environmental Protection Agency is moving towards regulation of these chemicals. Their use is already restricted in most of Europe.

**Atrazine:** Atrazine is a pesticide used to prevent broadleaf and grassy weeds. It is used primarily in large farming communities. Traces of the chemical have been found in streams and groundwater in and around these areas. It is a proven endocrine disruptor. Exposure by pregnant women can cause birth defects in children.

**Caffeine:** Caffeine is a chemical found in coffee, tea and many sodas. Traces of caffeine have been found in groundwater samples. Caffeine activates biotransformation enzymes and can lead to DNA damage.

**DEET:** DEET is a topical insecticide used in many bug repellent sprays. It can cause skin irritation and, in rare cases, anaphylactic reactions in humans, and can be toxic to fish.

# Buyer's Guide

## Food Products

### Food Packaging

#### Watch Out For:

Bisphenol – A (BPA)

#### Found In:

- Tupperware® brand storage containers. Also be wary of other brands of plastic storage containers.
- Hard plastic water bottles, including plastic sport bottles, sippy cups
- Recycling code #7 plastics, unless specified BPA-free
- Epoxy liners of steel and aluminum cans, including soup, soda, and coffee cans
- Cardboard coating for boxed items

#### How to Avoid It:

- BPA is not listed in ingredients because it is contained in the packaging of food products
- Knowing what kinds of products contain this contaminant is the best precaution
- Look for products designated BPA-free

#### Alternatives:

- Water bottles
  - Klean Kanteen®
  - Nalgene® - newer products labeled “BPA free”
  - Camelback® bottles - newer products labeled “BPA free”
- Canned goods
  - Eden Organics® brand canned goods (except tomato based products)
  - Pomi® brand boxed tomato products
  - Fresh produce or dehydrated soups and beans are the safest alternative
  - Glass jars
  - Polypropylene-lined pouches (#1) for tuna fish and chicken
  - Polyethylene-lined Tetra Pak® (#4) boxed soups and broths. Looks for Pacific®, Wolfgang Puck®, Swanson® and Dr. McDougall's® brands
  - Polyethylene Tetra Pak® (#4) juice boxes (instead of cans or plastic)

#### Where to Find It:

- Grocery stores have many alternative packaging options
- Pomi® tomato products, [www.amazon.com](http://www.amazon.com), [www.pennmac.com/page/29](http://www.pennmac.com/page/29)
- Klean Kanteen: REI, [www.KleanKanteen.com](http://www.KleanKanteen.com), Vital Outdoors (Golden)

### Food Preservatives

#### Watch Out For:

Butylated Hydroxyanisole (BHA)

#### Found In:

- Cereals such as Post Fruity and Cocoa Pebbles®
- Dehydrated potatoes, such as Idaho Spuds®
- Boxed pasta meals, such as Kroger Kitchen Creations®
- Boxed stuffing mix, such as Stove Top®
- Boxed lard, such as Morrel®

- Instant soup mix, such as Mrs. Grass® and Williams Country Store®

#### How to Avoid It:

- BHA is a product-specific preservative, so check the ingredients carefully
- Eating fresh products is the best way to avoid exposure to preservatives like BHA

#### Alternatives

- Packaged products not listing BHA are safe alternatives
- Fresh produce, fruit, bulk food

## Personal Care Products

### Soap

#### Watch Out For:

Triclosan, fragrance (perfume)

#### Found In:

- Antibacterial soap, such as Dial®
- Fragranced hand soap such as Softsoap®

#### Alternatives:

- CleanWell® antibacterial soap, Pangea® hand soap, Dr. Bronner's® bar or liquid castile soap, alcohol-based cleaners

#### Where to Find It:

- All grocery and household stores

### Shave Gel

#### Watch Out For:

- BHA, fragrance (perfume)

#### Found In:

- Skintimate Shave Gel®, Barbasol®

#### Alternatives:

- Dr. Bronner's® Magic Shaving Gel
- Avalon Organics® Moisturizing Cream Shave, Peppermint, Lavender and Aloe-unscented
- Depth® Shave Cream
- Alba® Moisturizing Cream Shave, Unscented

#### Where to Find It:

- Whole Foods Market
- Sunflower Market

### Toothpaste

#### Watch Out For:

- Triclosan

#### Found In:

- Colgate® including Total® and many whitening varieties

#### Alternatives:

- Tom's of Maine®
- Other toothpaste (check the active ingredient label)

#### Where to Find It:

- All grocery and household stores

### Lotions, Skin Moisturizers

#### Watch Out For:

Parabens, fragrance (perfume)

## Personal Care Products *continued...*

### Found In:

- Eucerin®, Lubriderm®, Jergens®

### Alternatives:

- Whole Foods, 365 brand® (Herbal Mint, Grapefruit Citrus, Lavender scent)

### Where to Find It:

- Whole Foods Market

## Sunscreen

### Watch Out For:

Benzophenone, oxybenzone, avobenzone, fragrance (perfume), parabens

### Found In:

- Most commercial sunscreens, including Banana Boat®

### Alternatives:

- California Baby® SPF 30+ Sunscreen
- Alba Botanica “Very Emollient Facial Sunblock”® SPF 30
- Alba Botanica “Very Emollient Sunblock”® SPF 30 Fragrance Free
- All Terrain® AquaSport SPF 30
- Badger® Natural and Organic Sunscreen, SPF 15, 30
- Soleo Organics® All Natural Sunscreen, SPF 30
- MyChelle Dermaceuticals® Sun Shield SPF 28 (local product)
- Kiss My Face obsessively natural® Sunscreen, SPF 18
- Kiss My Face® Sunspray Lotion SPF 30 (carefully check all Kiss My Face® products because many contain fragrance)

### Where to Find It:

- Whole Foods Market, Sunflower Market, REI and Vitamin Cottage

## Diaper Rash Cream

### Watch Out For:

BHA, fragrance (perfume), parabens

### Found In:

- Desitin® Diaper Cream

### Alternatives:

- California Baby® Diaper Rash Crème

### Where to Find It:

- Whole Foods Market

## Face Wash

### Watch Out For:

Fragrance (perfume), parabens

### Found In:

- Neutrogena® Clean & Clear®

### Alternatives:

- Thoroughly Clean Face Wash®

### Where to Find It:

- Golden Natural Foods and Whole Foods Market

## Insect Repellent/Bug Spray

### Watch Out For:

DEET

### Found In:

- Most commercial bug spray/insect repellents including OFF Deep Woods®

### Alternatives:

- Jason’s Pure “quit bugging me”® Natural & Organic insect repellent spray
- Ecosmart® organic insect repellent

### Where to Find It:

- www.jason-natural.com and Whole Foods Market

## Shampoo & Conditioner

### Watch Out For:

Parabens (methylparaben, ethylparaben, propylparaben), fragrance (perfume)

### Found In:

- Most commercial varieties, even if they are “natural”

### Alternatives:

- Sunflower Market Shampoo® (Vanilla) artificial fragrance and paraben free
- Whole Foods 365 Shampoo® (Herbal Mint, Grapefruit Citrus, Lavender) Sunflower Market
- Whole Foods 365 Conditioner® (Herbal Mint, Grapefruit Citrus, Lavender scent)

### Where to Find It:

- Whole Foods Market and Sunflower Market

## Cleaning Products:

### Laundry Detergent

#### Watch Out For:

Surfactants (octylphenol, nonylphenol), fragrance (perfume)

#### Found In:

- Assume all commercial detergents contain surfactants unless otherwise labeled

#### Alternatives:

- Ecos® All Natural Laundry Detergent, coconut kernel based surfactants
- Vaska® Herbatergent Laundry Detergent Lavender scent, plant-based surfactants
- Vaska® Bleach
- Vaska® Spot Remover

#### Where to Find It:

- Golden Natural Foods and Whole Foods Market (Ecos®)

### Dish Soap

#### Watch Out For:

Surfactants (octylphenol, nonylphenol)

#### Found In:

- Assume all commercial detergents contain surfactants unless otherwise labeled

#### Alternatives:

- Earth Friendly Products Ultra Dishmate® with coconut oil derived surfactants

#### Where to Find It:

- Golden Natural Foods and King Soopers

## CEC-Free Product Lines

### Pangea Organics®

- Free of Parabens and artificial or synthetic fragrances
- Products include body and facial skin care
- Where to find it: Whole Foods Market (Denver), Vitamin Cottage (Denver), or [www.pangeaorganics.com](http://www.pangeaorganics.com)

### Organique by Himalaya®

- Free of Parabens and artificial fragrances. Products include body and facial skin care, hair care, and toothpaste
- Where to find it: Whole Foods Market

## How to Get More Information

For more information about CECs and ways to minimize your chemical footprint, please contact us at the Institute for Environmental Solutions at [CEC@i4es.org](mailto:CEC@i4es.org) or our website [www.i4es.org](http://www.i4es.org).

## Resources

U.S. Department of Health and Human Services – Household Products Database:

<http://householdproducts.nlm.nih.gov/index.htm>

U.S. Food and Drug Administration:

[www.fda.gov/NewsEvents/PublicHealthFocus/ucm064437.htm](http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm064437.htm)



## Help Keep The Water Clean!

Sponsor or host a Workshop, Display, or Presentation on reducing exposure to contaminants in household and personal care products.... And reduce water pollution!

IES welcomes Parents, Community Groups, and Business participation. For more information, please email [Info@i4es.org](mailto:Info@i4es.org) or call 303-388-5211.

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