



Benzalkonium chloride

Substances that kill microbes, found in cleansers, moisturizers, lotions, anti-aging, -itch & -acne treatments, hair dyes, hair care products, nose spray, bubble baths, oral pain relievers & wound treatments, bubble baths, baby wipes & marine antifouling paint. Banned in cosmetics in Japan & Canada, restricted in the U.S.

Bisphenol A (bisA, BPA) *

Released from polycarbonate & epoxy resins: Found in plastic baby bottles, single-use and refillable drinking bottles, food storage containers, the lining (usually white) of food cans, Type 3 & 7 recyclables, the coating of sales receipts.

Butylated hydroxyanisole (BHA) *

Antioxidant/preservative, found in packaged food and cosmetics (skin lightening/anti-aging & shave creams, moisturizers, makeup).

*** endocrine disruptor**

Coal Tar, Resorcinol, p- or 4-Phe-nylenediamine, Aminophenols, F.D.&C Colors & Hydroquinone

All derived from coal. First three are found in hair dyes, shampoos, conditioners & makeup. F.D.&C. colors are found personal care products (some make toothpaste blue and mouthwash green). Hydroquinone whitens, so is found in hair bleaches, skin lighteners, concealers, sunscreens & moisturizers. Coal tar, resorcinol & hydroquinone are also anti-dandruff & -psoriasis agents in anti-itch & rash creams, aftershave, anti-acne & damaged skin treatments, cleansers, shampoos, moisturizers, & lip balms.

Diethanol-, diethyl-, or dimethyl-amine (DEA, DEN, DMA)

Found in hair colors, cleansers, moisturizers, anti-itch & rash creams, wound treatments, hair products & over-the-counter medications like foot powders. In wastewater they react to form nitrosamines, which cause cancer & birth defects.

Flame Retardants

Children's sleepwear (age 9 months to 14) in the US must be either snug-fitting or flame resistant (i.e. treated with flame retardants). Polyester fabrics must be flame resistant also. "Tris" & some polybrominated diphenyl ethers (PBDEs), are no longer used in the US, but Decabrominated diphenyl ether * (deca-BDE) is. Hexabromocyclododecane (HBCD) & Tetrakis(hydroxy- methyl)phosphonium-chloride (THPC) & -sulfate (THPS) are used. Try snug-fitting sleepwear for children, or buy imported garments, instead.

Formaldehyde

Prevents bacterial growth in fabrics, cosmetic glues, nail polish, shampoos & liquid body soaps. DMDM hydantoin, Bronopol, Quaternium 15, Imidazolidinyl urea, Diazolidinyl urea, Methenamine, Sodium hydroxymethylglycinate, Benzylhemi-formal & 5-bromo-5-nitro-1,3-dioxane are formaldehyde releasers found in fabrics, cosmetics, shampoos, liquid hand soaps & over-the-counter medicines like foot powders.

Fragrance

"Fragrance" or "parfum" can mask hundreds of unknown chemical ingredients harmful to the ocean environment. Synthetic musk* is an endocrine disruptor.

Lead acetate

A compound containing lead, a toxic metal, a colorant, found in hair dyes.

N,N-diethyl-m-toluamide

Found in (DEET), an insect repellent, pet wormers & flea powders & many common over-the-counter and prescription medications, such as analgesics, hormones & anti-hormones*, blood pressure & blood lipid reducers & anti-epileptic, -impotence, -asthma & -depression medications.

Nanoparticles

Unusually tiny particles added to moisturizers, makeup & sunscreens to make them embed in the skin. Includes Fullerene and C-60.

Heal The Ocean's

POCKET GUIDE

for Chemicals of Emerging Concern (CECs)

HTO has compiled this list of chemicals that are found in household products including pharmaceuticals, personal care products, cosmetics, fabrics, and plastic storage ware. They enter domestic wastewater, are not completely removed by wastewater treatment, and are considered by the State of California to be toxic to aquatic organisms. Effects due to disruption of endocrine (hormone) function are known to occur at very low concentrations (similar to those in treatment plant effluent). This guide is not a complete list of CECs that may cause disruption of aquatic ecosystems, but avoiding any of these substances will help improve the quality of our waters. We at HTO hope you shop with the guide for the health of the ocean.

The general rule: if you can't pronounce it, don't buy it!

www.healthocean.org

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Parabens*

(methyl-, ethyl-, propyl- & butyl-)

Preservatives in hair dyes, conditioners, moisturizers, cleansers, anti-aging treatments & makeup.

Phenoxy-, -oxynols, or -phenols*

Used to kill bacteria and sperm. Phenoxy-ethanol preserves cleansers, moisturizers, anti-aging creams, sunscreens, makeup & conditioners. Nonoxynol-9 & Octoxynol-9 are spermicides. Triclosan, an anti-bacterial agent, is in this class of chemicals (see "Triclosan" below). Polystyrene, in disposable cutlery, foam cups, coolers & packing materials (Type 6 recyclables), releases phenols. Phenol alone kills microbes & is a bleaching agent, deodorant, painkiller & exfoliant, found in hair dyes, skin-lightening & anti-itch creams, sunscreens, lip balms & over-the-counter medications like oral pain relievers & wound treatments.

* **endocrine disruptor**

Phthalates*

(dimethyl-, diethyl-, dibutyl-, diisobutyl-, benzylbutyl- & diphenyl; DMP, DEP, DBP, DIBP, BBP, DPP)

Added to plastics (most often polyvinyl chloride, PVC, a Type 3 recyclable) to increase flexibility. Released from paper & PVC food packaging, containers & wrappings, as well as toys. Also added to moisturizers, makeup, nail polish & other nail products, liquid soap & hair sprays.

Salicylic acid, Benzoyl peroxide & Retinoin (retinoic acid)

Anti-acne materials in acne & dandruff treatments, cleansers, masks, moisturizers, toners, makeup, anti-aging creams, shave creams & shampoos.

Sodium lauryl sulfate (SLS)*

Disrupts grease, used in kitchen cleansers, car washes, garage floor cleaners, and also shampoos, shave creams, toothpastes & bubble baths.

Sunscreen chemicals, including Benzophenone, Oxybenzone, Avobenzone, and Ethyl-p-aminobenzoic acid (ethyl-PABA, benzocaine)

UV filters found in lip balms & sunscreens, as well as sunless tanners and hair colorants.

Thiomersal

(technically BeThimerosal)

A compound containing mercury, a toxic metal, used as a preservative in make-up, tattoo inks & over-the-counter medicines like eye washes.

Triclosan*

(See also Phenoxy- chemicals)

An antibacterial agent found in liquid soaps, cleansers, deodorants, oral hygiene products, shave creams, anti-acne products, make-up, cleaning supplies, kitchen utensils & toys, & also linens. When treated with chlorine (as in wastewater treatment), a substance is released that is suspected of causing cancer.

Zinc pyrithione: Anti-dandruff agent found in shampoos, conditioners, moisturizers, anti-aging, -itch & damaged-skin treatments.

Note: Endocrine disruptors are substances that act like hormones in the endocrine system and disrupt the physiologic function of natural hormones in both sea animals and humans.

For more information on CECs, go to HTO's full report, *California Ocean Wastewater Discharge and Inventory* © 2010 Heal the Ocean, posted on www.healthocean.org.

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