

# EWG'S DIRTY DOZEN FOOD CHEMICALS:

## The top 12 to avoid

Our food should be nourishing and safe to eat.

But more than 10,000 chemicals are allowed in food sold in the U.S. Some are direct additives, such as preservatives like butylated hydroxyanisole, or BHA, and butylated hydroxytoluene, or BHT, which are intentionally added to processed food. Others are so-called indirect additives, like heavy metals, which contaminate food during processing, storage and packaging.

**Almost 99 percent** of food chemicals introduced since 2000 were greenlighted for use by food and chemical companies, rather than properly reviewed by the Food and Drug Administration. Many of these widely used chemicals are associated with major health harms, including increased risk of cancer, developmental harm and hormone disruption.

These substances end up in what we eat, thanks to a legal loophole that allows foods to be classified as “**generally recognized as safe.**” It’s a loophole food and chemical companies have exploited for decades – it means that instead of the FDA determining which food chemicals are safe to consume, the manufacturers of those substances decide.

That can leave consumers struggling to know what’s safe for their families.

**EWG’s Dirty Dozen Guide to Food Chemicals shows you which chemicals to avoid in food by highlighting some of the worst offenders on the market.**



### Nitrates & nitrites

Nitrates and nitrites are preservatives used in cured meats. Nitrites can form from nitrates and have been linked to stomach cancer, esophageal cancer, and possibly brain and thyroid cancers.



### Potassium bromate

Potassium bromate is a possible human carcinogen added to flour used in packaged baked goods.



### Propyl paraben

Propyl paraben is a preservative used in pastries and some tortillas. It causes developmental and reproductive harm.



### BHA

Butylated hydroxyanisole, better known as BHA, is a preservative used in cured meats and other foods. Multiple sources have identified it as a possible human carcinogen.





## BHT

Butylated hydroxytoluene, also called BHT, is a preservative found in cereals and other foods. It's a chemical cousin of BHA and is a possible human carcinogen.



## TBHQ

Tert-butylhydroquinone, or TBHQ, is a preservative used in Pop-Tarts and other processed foods. It may harm the immune system and weaken the effectiveness of vaccines.



## Titanium dioxide

Titanium dioxide is a color additive used mostly in candy. It may damage DNA.



## BVO

Brominated vegetable oil, or BVO, is used to stabilize citrus flavors in sodas and fruity drinks. It can cause neurological harm.



## PFAS

The toxic per- and polyfluoroalkyl “forever chemicals” known as PFAS are used in food packaging and are known to leach into the food itself. They increase the risk of cancer and damage the immune and reproductive systems, among many other health harms.



## Artificial colors

Synthetic food dye can be found in many types of food and beverages. They can affect development and cause behavioral difficulties in children. There are seven we're especially concerned about: Red 3, Red 40, Yellow 5, Yellow 6, Blue 1, Blue 2 and Green 3.



## Artificial sweeteners

Artificial sweeteners can affect the hormones that regulate metabolism and have a negative effect on weight control.



## Heavy metals

Many baby foods contain dangerous levels of heavy metals, including mercury, lead, cadmium and arsenic. Exposure can slow growth and development, increase cancer risk and lead to behavioral and learning difficulties. Most metals get into food through water and soil pollution.