

# ARTIFICIAL FOOD COLOURS



## Introduction

We've all heard it, "don't give Billy red cordial, it makes him go crazy", right!? But WHY?? This fact sheet will delve into the world of artificial food colours and we have picked out the worst of them for you.

## What are they?

A lot of colours are made up from synthetic coal tar. Artificial colours are often tested on animals and are made from industrial chemicals such as petroleum and propylene glycol, commonly known as antifreeze.

*Coal tar dyes are artificial colouring agents made by combining various aromatic hydrocarbons like toluene, xylene and benzene, which are obtained from the distillation of bituminous coal. Coal tars are also made from petroleum distillates - Source Google. ("sounds tasty...NOT!")*

## Where are they found?

Colours can be sneaky, they aren't always found in something that would normally stand out to you, like a bright red lolly, green cordial or rainbow ice-cream. They can be hidden in things you may not expect. For example, some brands of tortillas use the colour yellow (additive 102) in them. This particular colour is also found in custard powder, cheese flavour chips, supermarket sponge cakes and more!

Another one that might shock you is that certain brands of spinach wraps from the supermarket are green because of blue and yellow food colours mixed together and they only contain 'spinach flavouring'. "Gross, huh!!"

Colours can also be found in some medications targeted at children (like Panadol, cough syrup, lolly style vitamins etc) - just plain scary?! It's always a good idea to read the ingredients list and ask the pharmacist for advice on additive free medications.

## The Science

A study was completed by a research team from Slovak University of Technology studying the effects of two food dyes - Brilliant Blue and Patent Blue. Co-author Jarmila Hojerová, PhD, conducted the study using pigs. Brilliant Blue and Patent Blue dye were placed on the pigs tongues for 20 minutes, in an effort to mimic licking a lollipop. One day later the team found that both dyes had actually been absorbed through the tongue and into the bloodstream! Both these dyes have been linked to ADHD and asthma and Patent Blue is actually banned from use in food products in the US. This is terrifying considering children as young as toddlers are consuming these chemicals and it could be possibly getting absorbed into their blood stream!!

One of the most recent and influential studies that has had a massive impact on how food is labelled in the UK was a study conducted by the Southampton University. This study identified six artificial food colourings, that when mixed with sodium benzoate (a common preservative), caused direct behavioural changes in children. These were: 102, 104, 110, 122, 124, 129

Since July 2010, across Europe, it has become mandatory that a warning label be included on the packaging of all food that includes these artificial food colourings. The warning label states that the consumption of the product may have an adverse effect on activity and attention in children. Unfortunately no such warnings are on Australian packaging.

### What does all of this mean?

Whilst we know that some food colours are known for their effect on children and the links to hyperactivity, it is important to know that some are also carcinogenic and beyond. Below is a simple table outlining our pick of the worst colours.

<b>Number &amp; Name</b>	<b>Potential effects when in food</b>	<b>Common foods it's found in</b>
<b>102, Tartrazine Yellow colour dye</b>	Hyperactivity, thyroid issues, aggression, headache, migraine, nettle rash, hay fever like symptoms, asthma, tingling of the mouth, insomnia, confusion, itching, blurred vision, cancer. Asthmatics should avoid.	Cereals, popcorn, soft drinks, canned peas (can be mixed with blue and yellow to make the colour green), cheese crackers, mint sauce, fruit juice cordial, jam, pickles, cereal, packaged soup, lollies, snack food, cheese flavoured crackers/chips, bread wraps.
<b>104, Quinoline Yellow Yellow colour dye</b>	Linked to hyperactivity, skin rashes and asthmatics should avoid.	As per above.
<b>110, Sunset Yellow Yellow colour dye</b>	Suspected carcinogen, allergies, hyperactivity, upset stomach, skin rashes, kidney tumours, chromosomal damage.	As per above.
<b>122, Azorubine/ carmoisine Red dye</b>	Suspected carcinogen, mutagen, skin rashes, oedema, hyperactivity.	Cheeses, dried fruits and some alcoholic beverages.
<b>123, Amaranth Black colour dye</b>	Mutagen, skin rash (nettle rash), hyperactivity, hay fever like symptoms, allergic reactions in aspirin-sensitive people, asthmatics should avoid and can cause eczema.	Jelly, packet cake mixes, soft drinks, blackcurrant juices, cereals, lollies and more.
<b>124, Ponceau 4R Red colour dye</b>	Suspected carcinogen, linked to hyperactivity and asthmatics should avoid.	Lollies, jelly, packet cake mixes, biscuits, canned strawberries, ice-cream, icings, sprinkles and more.
<b>127, Erythrosine Pink colour dye</b>	Linked to thyroid issues, hyperactivity in children, brain dysfunction, and light sensitivity.	Canned fruit, custard mix, sweets, bakery items, snack foods, biscuits, chocolate, luncheon meat, salmon spread, paté, and more.

<b>129, AlluraRed AC Red/Orange colour dye</b>	Suspected carcinogen, and suspected skin rashes in sensitive people.	Sweets, drinks, condiments, medications and more.
<b>133, Brilliant Blue Blue colour dye</b>	Nausea, breathing difficulty, linked to hyperactivity. Suspected carcinogen.	Often used in conjunction with 102, Tartrazine to produce the shade of green. Can be found in 'spinach' wraps (that's how they turn green), tinned peas, jelly, lollies, icing, drinks and mouth wash. Be careful with all the Disney 'Frozen' themed food out there now, as most of the blue is made up of additive 133.
<b>151, Brilliant Black BN or Brilliant Black PN</b>	Testing has indicated it can be linked to bowel disorders. Linked to hyperactivity, asthmatics should avoid.	Can be found in food decorations, desserts, lollies, ice cream, mustard, red fruit jams, soft drinks, flavoured milk drinks and others.
<b>155, Brown HT</b>	Suspected carcinogen and mutagen. Linked to skin rashes and asthmatics should avoid.	Chocolate cakes, drinks, jams, fish products, cheeses, milks and more.

## The Good News

We are pleased to let you know that there are alternative products on the market which make life a whole lot easier when trying to navigate around these nasty numbers.

For example, when conducting our research, we discovered that Aldi have removed all of the Southampton Six colours from their own branded range of products. It would be amazing if some of the other large supermarket companies followed suit, but no such luck just yet.

Whilst more and more items are switching to safer alternatives, we want to remind you that it is always a good idea to check labels and read ingredient panels.

